in the ever changing world of medical technology some constants exist



Thorne Research



CUSTOMER SERVICE

Our friendly, efficient staff is available from 6:30 am to 5:00 pm (Pacific Time), Monday thru Friday. Orders may be placed 24 hours a day, 7 days a week by e-mail at sales@thorne.com, or fax 800-747-1950, or by visiting our website at www.thorne.com.

Orders are processed same day and shipped worldwide via Federal Express.

Discounts apply to purchases of any combination of stock products. Please contact Customer Service for a current price list and ordering information. Call Toll Free 1-800-228-1966.

Thorne Research products are sold exclusively through licensed health-care practitioners and pharmacies.

25820 Highway 2 West

P.O. Box 25

Dover, Idaho 83825

800-228-1966

208-263-1337

FAX: 800-747-1950

www.thorne.com

info@thorne.com



NEW FROM THORNE PHYTOSOME TECHNOLOGY

In this new version of the CD Catalog,
Thorne is pleased to introduce a
few new products, as well as some
enhanced formulas that utilize new,
unique botanical extracts with marked
enhancement of bioavailability and
significantly greater clinical benefits.
Go to page xxviii (or click here) for more
information.

Welcome to the Thorne Research catalog on CD. We hope you will enjoy it and use the numerous resources available on it. This latest version contains over 500 links to information on products and scientific articles – all one click away on this CD.

Getting Started

The catalog and supporting materials are Adobe Acrobat pdf files. For best results you should use Adobe Acrobat Reader 8.0 or newer. If you do not already have Adobe Acrobat Reader, you can download it free of charge from the Adobe Website at http://www.adobe.com/products/acrobat/readstep2.html.

Older versions of Adobe Acrobat and other pdf viewers, such as Apple's Preview, will be able to view the catalog and supporting materials, but navigational links within the document may not function correctly.

While the Thorne Research Catalog is designed to run directly off the CD, you can if you wish, copy the complete catalog folder to your computer hard drive. By copying the entire contents of the CD to your computer hard drive, you will notice an increase in the speed in which the program accesses the various support materials. All the folders must be copied in order for the links to monographs and articles to function.

Using the CD to the Fullest

The catalog was designed so you have several ways to locate products and information:

On pages iii – v, you will find the Alphabetical Product Listing. The Alphabetical Product Listing lists all the products by name within the catalog. Clicking on a product name on any of these pages will take you to the corresponding product detail page in the catalog.

Located on pages vi – x, is the Product Category Index. Listed here are the major indication headings and products associated with their treatment. Once again, clicking on any product name in this section will take you directly to the product detail page.

Pages xi – xix, contain an extensive Active Ingredient Cross Reference. This invaluable reference tool will direct you to Thorne Research products by active ingredient. Listed under each active ingredient heading is an alphabetical list of Thorne products that contain the ingredient. Clicking on the product name will take you to the product detail page.

Printing Select Pages

You can also print any page(s) by clicking on the printer icon on the menu bar and designating which page(s) you would like to print. This document was designed in two sections – the first section is numbered iii thru xxviii. This section contains the indexes and introductions. So, to print pages iii thru iv, click Selected Pages in the print dialog box and enter iii-iv.

The second section that contains all the product information is numbered Sec1:1 thru Sec1:190 – in order to print a select range of pages you MUST use the Sec1: prefix. So, to print pages 10 thru 14, click Selected Pages in the print dialog box and enter Sec1:10-Sec1:14.

To print the current page only, select Current Page from the print dialog box.



Whether you choose to use one or more of the three indexes provided at the beginning of the catalog or just browse the catalog page by page, you will be presented with a wealth of information. We have included current Supplement Facts information for each product and a discussion about the product itself.

Once you are in a product detail page you will see that most contain links (in blue under the Supplement Facts box) to product data sheets, monographs, journal articles, and other information we have in print. Click on any of these links and a separate PDF will appear so you may read, print, or save to a file.

Listed above each Supplement Facts box are the categories or indications to which the product is most commonly associated with. If you click on these major category headings, you will be taken to the Product Category Index where you can locate other products in that same category and quickly link to them for more information.

Beneath most write-ups on the individual product pages you will see links (in blue text) for other products you may want to consider. By clicking on any product name you will be taken to that corresponding product page and the information that relates to it.

On the side of all product detail pages is a Back to Alpha Index button. By clicking on this button you will be taken back to page iii and the first page of the Alphabetical Product Listing. Unlike a website this PDF Catalog has limits in functionality.

Using Acrobat for More Functionality

The Acrobat program itself has more options to improve functionality. There is a small icon that looks like two stacked pages on the left side of the screen. If you click on the icon your view changes so that you see thumbnails of all pages of the catalog. Simply click on any page and it will jump there rather than using the arrows to view one page at a time.

In the menu across the top under VIEW you can also select to GO TO pages – last viewed, first page, next or previous pages.

The size of the page and text will depend on the size of your screen. You can locate the page you want to read and increase the size of the text by increasing the percentage of the page size.

Product Listing

5-Hydroxytryptophan (SA503)	67	Berbercap® (SF760)	115	Citramin II® (M250)	48
5-MTHF (B129)	01	Betaine HCL & Pepsin	110	Citramins® (M249)	48
(5-Methyl-tetrahydrofolate)	37	(SD415)	96	Citricidin® (SF746)	122
(5 Mothyr totranyarololate)	01	Bio-B12® (B120)	35	CO-10® (SF721)	123
Α		BioDERM® (SP650)	116	Coleus Forskohlii (SF756)	122
Adrenal Cortex (SG803)	111	Bio-Gest® (SD404)	97	Collag-en™ (SG806)	125
Al's Formula™ (VMM)	6	Biomin II® (M202)	47	Copper Picolinate (M257)	50
Anti-Oxidant (SF702)	110	Biomins® (M201)	47	Coptis (SP628)	125
Arabinex® (SP619)	111	Bio-PMT® (SF710)	117	Co-Q-100® (SF719)	123
AR-Encap® (SF774)	112	Biotin-8 (B118)	36	CoQ100® Softgels (SP617)	124
Artecin® (SF736)	113	Black Currant Oil (SP602)	108	CoQ300® Softgels (SP618)	124
Ascorbic Acid (C150)	20	Boron Picolinate (M264)	50	Cortine® (SG802)	126
Ascorbic Acid One Gram (C149)	21	B.P.P. (SD410)	97	Cortrex® (SG801)	126
ASCOIDIC ACID OHE CIAIT (C143)	21	Buffered C Powder (C155)	21	Curcumin (now Meriva) (SF775)	127
В		Dulleled C Fowder (C133)	21	Cysteplus® (SA560)	70
Bacopa (SF728)	113	C		Cystepius (SASOO)	70
, ,	29	Calcium Citramate™ (M270)	41	D	
Basic B Complex (B104)	13	,	41	D-1000™ (D128)	24
Basic Detox Nutrients™ (VMD)		Calcium Citrate (M217) Calcium D-Glucarate (M280)	118		25
Basic Immune Nutrients™ (VMH)	14	,	110	D-5000 [™] (D138)	
Basic Nutrients I (VM1)	4	Calcium-Magnesium	40	Dehydrone-5® (SF730)	128
Basic Nutrients II (VM3)	4	Citrate (M218)	42	Dehydrone-15® (SF731)	128
Basic Nutrients III (VM6)	4	Calcium-Magnesium	40	Deproloft® (SF743)	129
Basic Nutrients IV (VM7)	4	Citramate [™] (M271)	42	DHA (SP609)	107
Basic Nutrients V (VM5)	3	Cal-Mag Citrate (Effervescent		Diabenil® (SF790)	130
Basic Prenatal (VMP)	10	Powder) (M222)	43	Diosmin-HMC (SB333)	82
Basic Pygeum Herbal (SF761)	114	Captomer® (SF740)	119	Dipan-9® (SD400)	98
B-Complex #1 (B101)	30	Captomer-250® (SF735)	119	DL-Phenylalanine (SA550)	76
B-Complex #3 (B103)	31	Carnityl® (SA520)	68	Double Zinc Picolinate	
B-Complex #5 (B105)	33	Children's Basic Nutrients (VMC)	11	(M220)	60
B-Complex #6 (B106)	34	Choleast [™] (SF751)	120		
B-Complex #12 (B112)	35	Chromium Picolinate (M255)	51		

Product Listing

E		Hydrolyzed Whey Protein		MediClear Plus (SP645)	16
E-500 (E142)	27	(SP623)	138	Medipro® (SP620)	12
Entrocap® (SF747)	131	Hyper-Ex® (SF729)	139	Melaton-1 [™] (SF781)	148
Extra Nutrients™ (VMX)	5			Melaton-3 [™] (SF788)	148
		1		Melaton-5 [™] (SF780)	149
F		IM-Encap [™] (SG820)	140	Memoractiv [™] (SF737)	152
Ferrasorb® (SF750)	54	Indole-3-Carbinol (SF749)	141	Meriva (Curcumin) (SF775)	127
Fibrovive® (SF704)	131	Iodine & Tyrosine (M219)	55	Meta-Balance [™] (SF711)	151
Folacal® (B130)	38	Ipriflavone (SB345)	88	Meta-Fem [™] (VMW)	8
Folic Acid Liquid (B123)	38	Iron Citrate (M238)	54	Metaplex® (SA505)	75
Formaldehyde Relief (SF793)	132	Iron Picolinate (M258)	53	Methylcobalamin (B125)	36
Formula SB313 (SB313)	92	Isatis (SF764)	142	Methyl-Guard® (SF787)	150
Formula SF722 (SF722)	133	Iso-Phos® (SF715)	142	M.F. Bromelain® (SB315)	100
Formula SF734 (SF734)	132			Moducare (SP633)	153
Fractionated Pectin (SF779)	134	K		Molybdenum Picolinate (M260)	58
Fractionated Pectin Powder		Krill Oil (SP612)	106	MSM-750 (SF712)	154
(SF778)	134			Myco-Immune [™] (SP629)	154
		L		Myorel® (SF772)	155
G		Lactobacillus Sporogenes (SF758	3)143		
GB24™ (SF739)	135	L-Carnitine (SA502)	69	N	
GI-Encap® (SF703)	135	L-Glutamine (SA518)	73	Neo-Cardio [™] (SF716)	156
Glucosamine & Chondroitin		L-Glutamine Powder (SA519)	73	Neurochondria® (SF738)	157
(SF767)	136	Lipotrepein® (SF700)	144	Niacinamide (B131)	31
Glucosamine Sulfate (SF776)	136	Liver Cleanse (SF769)	145	Niasafe-600® (B113)	32
Glutathione-SR (SA540)	71	L-Lysine (SA516)	75	Nutri-ADD (SF754)	158
Glycine (SA512)	74	L-Tryptophan (SA501)	79	Nutri-Fem [™] (VMF)	7
Green Tea Phytosome (SB336)	91	L-Tyrosine (SA514)	80		
G.TEX® (now Green Tea Phytos	ome)			0	
(SB336)	91	M		Ocu-Clear [™] (SF798)	159
		Magnesium Aspartate (M213)	43	Olive Leaf Extract (SF763)	162
H		Magnesium Citramate™ (M272)	44	Omega-3 w/CoQ10 (SP616)	105
Heavy Metal Support (SF795)	137	Magnesium Citrate (M234)	44	Omega Plus™ (SP607)	105
Herbal Laxative (SF768)	137	Manganese Picolinate (M211)	58	0.P.C100 [™] (SF745)	87
HMC Hesperidin (SB324)	83	Medibulk® (SP621)	147	Oscap Plus [™] (SG823)	161
HMC-Plus® (SB328)	83	MediClear® (SP640)	16	Oscap™ (SG822)	160

Product Listing

P		R		Toxic Relief Booster (SF782)	182
Pantethine (SF706)	33	Rhodiola (SF755)	173	Trace Minerals (M242)	49
Perfusia-SR® (SA525)	66	Riboflavin 5' Phosphate (B115)	30	Traumogen® (SF723)	185
Perma-Clear® (SF741)	162	R-Lipoic Acid (SF771)	172	Tri-Spartate® (M203)	46
Pesticide Protector (SF794)	163				
Petadolex® (SP627)	164	\$		U	
Pharmacol-40® (SP651)	165	Sacro-B [™] (SF757)	174	Ultimate-E® (E143)	28
PharmaGABA-PRO™ (SP652)	72	S.A.T.® (SF732)	175	UltraChrome-200® (M274)	52
Phosphatidyl Choline (SP605)	166	Formula SB313 (SB313)	92	UltraChrome-500® (M276)	52
Phytisone® (SG804)	167	Sedaplus® (SF770)	176	Undecyn® (SF742)	186
Phytogen® (SF724)	168	Selenium Citrate (M236)	56	Uristatin® (SF726)	187
Phytoprofen® (SF799)	169	Selenium Picolinate (M256)	56		
Pic-Mins® (M243)	49	Serenoa Gelcaps (SF762)	177	V	
Planti-Oxidants® (SF701)	93	Formula SF722 (SF722)	133	Vacimyr® (SF748)	90
Plantizyme [™] (SD403)	99	Formula SF734 (SF734)	132	Vanoxyl 5® (M266)	57
Policosanol (SF708)	170	Siliphos (SF733)	177	Vanoxyl 25® (M267)	57
Potassium Citrate (M240)	45	Solvent Remover (SF796)	178	Venocap® (SF759)	188
Potassium-Magnesium		Soy Isoflavones (SB341)	89	Vinpocetine (SB360)	189
Aspartate (M216)	46	Sulfonil® (SF783)	179	Vitamin A (A97)	27
Potassium-Magnesium		Super EPA (SP608)	103	Vitamin C with Flavonoids (C152)	23
Citrate (M241)	46	Supportive Care® (SFSC)	178	Vitamin K2 (K170)	26
Pure Ascorbic Acid (C150)	20	Supportive Care II [™] (SFSD)	18		
Pure Ascorbic Acid		Synergisti-C [™] (C160)	22	Z	
One Gram (C149)	21			Zinc Carbonate (M259)	61
Pyridoxal 5' Phosphate (B116)	34	T		Zinc Citrate (M239)	59
		T.A.P.S. [™] (SF773)	181	Zinc Picolinate (M210)	60
Q		T. Asthmatica Plus® (SF766)	180	Double Strength	
Q10 Plus® (SF713)	171	Taurine (SA511)	77	Zinc Picolinate (M220)	60
QC Nasal Spray [™] (SB331)	86	Theanine (SA508)	78	Zinc Sulfate, 7-Hydrate	61
Quercenase® (SB332)	85	Thiocid® (SF786)	183		
Quercetone® (SB330)	84	Thiocid-300® (SF797)	183		
		Thyrocsin [™] (SF765)	184		

Adrenal Support

Adrenal Cortex B-Complex #5

Cortine Cortrex

Dehydrone-15 Dehydrone-5 Pantethine

Phytisone

Allergy Support

Coleus Forskohlii

Cysteplus HMC-Plus

HMC Hesperidin

MediClear

MediClear Plus

Moducare

Petadolex

QC Nasal Spray

Quercenase

Quercetone

Solvent Remover

T. Asthmatica Plus

Vitamin C with Flavonoids

Amino Acids

5-Hydroxytryptophan

Carnityl Cysteplus

DL-Phenylalanine

Glutathione-SR

Glycine

lodine & Tyrosine

L-Carnitine L-Glutamine

L-Glutamine Powder

L-Lysine

L-Tryptophan

L-Tyrosine Metaplex

Perfusia-SR

PharmaGABA-PRO

Taurine

Theanine

Antioxidants

Anti-Oxidant

Co-10

Co-Q-100

CoQ100 Softgels

CoO300 Softgels

E-500

Extra Nutrients

Green Tea Phytosome

Glutathione-SR

0.P.C.-100

Planti-Oxidants

Pure Ascorbic Acid

Pure Ascorbic Acid One Gram

R-Lipoic Acid

Selenium Citrate

Selenium Picolinate

Siliphos

Thiocid

Thiocid-300

Ultimate-E

Vacimyr

Vitamin C with Flavonoids

Bone Support

Boron Picolinate

Calcium Citramate

Calcium Citrate

Calcium-Magnesium Citramate

Calcium-Magnesium Citrate

Cal-Mag Citrate (Effervescent)

D-1000

D-5000

Ipriflavone

Oscap Plus

Oscap

Vitamin K2

Carbohydrate Metabolism

Biotin-8

Chromium Picolinate

Diabenil

UltraChrome 200

UltraChrome 500

Vanoxyl 25

Vanoxyl 5

Cardiovascular Support

5-MTHF

B-Complex #12

Bio-B12

Choleast

Co-10

Co-Q-100

CoQ100 Softgels

CoQ300 Softgels

E-500

Krill Oil

L-Carnitine

Methylcobalamin

Methyl-Guard

Neo-Cardio

Omega-3 w/CoQ10

Pantethine

Perfusia-SR

Pharmacol-40

Phosphatidyl Choline

Policosanol

010 Plus

Super EPA

Taurine

Ultimate-E

Cerebrovascular Support

GB24

Vinpocetine

Cognitive Support

Bacopa Carnityl DHA GB24

Glutathione-SR Iso-Phos

Memoractiv Methyl-Guard

Nutri-ADD Super EPA

Vinpocetine

Dermatology

Biotin-8 BioDERM

Black Currant Oil Coleus Forskohlii

Double Strength Zinc Picolinate

Omega Plus Perma-Clear Vitamin A

Detoxification Support

Basic Detox Nutrients
Calcium D-Glucarate
Captomer

Captomer-250 Cysteplus DHA

Formaldehyde Relief

Glycine

Heavy Metal Support
Hydrolyzed Whey Protein
Indole-3-Carbinol
Liver Cleanse
Medibulk
MediClear
MediClear Plus

Pesticide Protector

Pure Ascorbic Acid One Gram

Siliphos

Solvent Remover Toxic Relief Booster

Digestive Support

B.P.P.

Betaine HCL & Pepsin

Bio-Gest Dipan-9 M.F. Bromelain Plantizyme

Electrolyte Balance

Potassium-Magnesium Aspartate Potassium-Magnesium Citrate Tri-Spartate

Essential Fatty Acids

Black Currant Oil

DHA Krill Oil Omega Plus

Omega-3 w/CoQ10

Super EPA

Flavonoids

Diosmin-HMC Formula SB313 Green Tea Phytosome

HMC Hesperidin

HMC-Plus Ipriflavone 0.P.C.-100

Planti-Oxidants QC Nasal Spray

Quercenase Quercetone Soy Isoflavones

Vacimyr

Vitamin C with Flavonoids

Gastrointestinal Support

Artecin Berbercap Citricidin Entrocap Formula SF7

Formula SF722 Formula SF734

GI-Encap

Herbal Laxative

Lactobacillus Sporogenes

L-Glutamine

L-Glutamine Powder

Medibulk MediClear Plus Perma-Clear Sacro-B Undecyn

Gingival Support

Co-10 Co-Q-100

CoQ100 Softgels CoQ300 Softgels Folic Acid Liquid

Vitamin C with Flavonoids

Hematinics

Ferrasorb
Iron Citrate
Iron Picolinate

Hepatic Support

Calcium D-Glucarate Meriva (Curcumin)

Cysteplus

Formula SB313

Glutathione-SR

Lipotrepein

Liver Cleanse

Phosphatidyl Choline

Pyridoxal 5'-Phosphate

R-Lipoic Acid

S.A.T.

Siliphos

T.A.P.S.

Taurine Thiocid

Thiocid-300

Immune Support

Arabinex

Basic Immune Nutrients

Berbercap BioDERM Coptis

D-1000

D-5000

Double Strength Zinc Picolinate

Green Tea Phytosome

IM-Encap Isatis L-Lysine Moducare Myco-Immune Olive Leaf Extract

Phytogen

Pure Ascorbic Acid

Pure Ascorbic Acid One Gram

Pyridoxal 5' Phosphate

Synergisti-C Vitamin A

Vitamin C with Flavonoids

Zinc Carbonate
Zinc Citrate
Zinc Picolinate

Kidney Support

Calcium Citrate Magnesium Citrate Potassium Citrate Pyridoxal 5' Phosphate Super EPA

Lipid Metabolism Support

Calcium D-Glucarate

Choleast Krill Oil

Lactobacillus Sporogenes

L-Carnitine
Medibulk
Niasafe-600
Pantethine
Pharmacol-40
Phosphatidyl Choline

Policosanol

Super EPA

UltraChrome-200 UltraChrome-500

Minerals

Biomins Biomin II

Boron Picolinate

Calcium Citramate
Calcium Citrate

Calcium-Magnesium Citramate

Calcium-Magnesium Citrate

Cal-Mag Citrate (Effervescent)

Chromium Picolinate

Citramins
Citramin II

Copper Picolinate

Ferrasorb

Iodine & Tyrosine

Iron Citrate

Iron Picolinate

Magnesium Aspartate
Magnesium Citramate

Magnesium Citrate

Manganese Picolinate

Molybdenum Picolinate

Pic-Mins

Potassium Citrate

Potassium-Magnesium Aspartate

Potassium-Magnesium Citrate

Selenium Citrate Selenium Picolinate

Trace Minerals

Tri-Spartate

UltraChrome-200 UltraChrome-500

Vanoxyl 25

Vanoxyl 5
Zinc Carbonate

Zinc Citrate

Zinc Picolinate

Zinc Picolinate (Dbl Strength)

Zinc Sulfate, 7-Hydrate

Meal Replacement

Hydrolyzed Whey Protein

MediClear

MediClear Plus

Medipro

Men's Health Products

Al's Formula

Basic Pygeum Herbal Fractionated Pectin

Fractionated Pectin Powder

Perfusia-SR

Serenoa Gelcaps

Metabolic Support

Green Tea Phytosome Hydrolyzed Whey Protein

Medipro MediClear MediClear Plus

Mood Enhancement

5-Hydroxytryptophan

5-MTHF

Basic B Complex

Deproloft

DL-Phenylalanine

Hyper-Ex L-Tryptophan L-Tyrosine

PharmaGABA-PRO

Super EPA Theanine

Multiple Vitamin-Mineral Formulas

Al's Formula

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I Basic Nutrients II

Basic Nutrients III
Basic Nutrients IV

Basic Nutrients V
Basic Prenatal

Children's Basic Nutrients

Extra Nutrients
MediClear
Medipro
Meta-Fem
Nutri-Fem

Supportive Care II

Musculoskeletal Support

AR-Encap Collag-en Fibrovive

Formula SB313

Glucosamine & Chondroitin
Glucosamine Sulfate

Hydrolyzed Whey Protein

Manganese Picolinate

Mervia

M.F. Bromelain MSM-750 Myorel Niacinamide

O.P.C.-100 Phytoprofen

Traumogen

Neuroendocrine Support

5-Hydroxytryptophan

5-MTHF
Bacopa
Dehydrone-5
Dehydrone-15
Deproloft

Diabenil

DL-Phenylalanine

Hyper-Ex

Iodine & Tyrosine L-Tryptophan L-Tyrosine Melaton-1 Melaton-3 Melaton-5 Methylcobalamin Neurochondria PharmaGABA-PRO

Pyridoxal 5' Phosphate

Rhodiola R-Lipoic Acid Sedaplus Theanine

Thyrocsin

Neurological Support

5-MTHF B-Complex #1 Carnityl Co-10 Co-Q-100

CoQ100 Softgels

CoQ300 Softgels Neurochondria

Omega-3 w/CoQ10

R-Lipoic Acid Thiocid Thiocid-300

Neurovascular Support

Petadolex

Riboflavin 5' Phosphate

Oncology Support

Co-10 Co-Q-100

CoQ100 Softgels CoQ300 Softgels

D-5000

Folic Acid Liquid Fractionated Pectin

Fractionated Pectin Powder

Green Tea Phytosome Indole-3-Carbinol L-Glutamine

L-Glutamine Powder

Melaton-5 Meriva

Omega-3 w/CoQ10 Pure Ascorbic Acid

Pure Ascorbic Acid One Gram

Super EPA Supportive Care Supportive Care II Vitamin K2

Ocular Support

Ocu-Clear R-Lipoic Acid Thiocid-300 Vacimyr Vitamin A

Peripheral Vascular Support

Diosmin-HMC F-500 Niasafe-600 0.P.C.-100 Perfusia-SR Ultimate-E

Vitamin C with Flavonoids

Probiotics

Venocap

Lactobacillus Sporogenes Perma-Clear Sacro-B

Prostate Support

Al's Formula Basic Pygeum Herbal Serenoa Gelcaps

Protein Supplements

Hydrolyzed Whey Protein MediClear MediClear Plus Medipro

Respiratory Support

Coleus Forskohlii Cysteplus Moducare Petadolex QC Nasal Spray Quercenase Ouercetone Sulfonil Synergisti-C T. Asthmatica Plus

Sleep Management

5-Hydroxytryptophan L-Tryptophan Melaton-1 Melaton-3 Melaton-5 PharmaGABA-PRO Sedaplus

Stress Management

PharmaGABA-PRO Rhodiola Sedaplus Theanine

Theanine

Sulfite Metabolism

Molybdenum Picolinate

Thyroid Support

Iodine & Tyrosine Selenium Citrate Selenium Picolinate

Thyrocsin

Urinary Tract Support

Berbercap Magnesium Citrate Potassium Citrate Pyridoxal 5' Phosphate Uristatin

Vitamins

5-MTHF Basic B Complex B-Complex #1 B-Complex #12 B-Complex #3 B-Complex #5 B-Complex #6 Bio-B12

Buffered C Powder

D-5000 F-500 Folacal

Biotin-8

D-1000

Folic Acid Liquid Methylcobalamin **Niacinamide** Niasafe-600 Pantethine

Pure Ascorbic Acid

Pure Ascorbic Acid One Gram Pyridoxal 5' Phosphate Riboflavin 5' Phosphate

Synergisti-C Ultimate-E Vitamin A

Vitamin C with Flavonoids

Vitamin K2

Women's Health Products

5-MTHF **Basic Prenatal** Bio-PMT

Black Currant Oil **Boron Picolinate** Calcium D-Glucarate

D-1000 D-5000 Diosmin-HMC **Folacal** Formula SF722

HMC Hesperidin Indole-3-Carbinol **Ipriflavone** Krill Oil Meta-Balance Meta-Fem Myorel Nutri-Fem **Oscap** Oscap Plus Soy Isoflavones

Wound Healing

Hydrolyzed Whey Protein

L-Glutamine

Venocap

Vitamin K2

L-Glutamine Powder M.F. Bromelain Perfusia-SR Phytoprofen Pure Ascorbic Acid

Pure Ascorbic Acid One Gram

Traumogen

Acetyl-L-Carnitine

Carnityl Fibrovive Memoractiv Neurochondria

N-Acetylglucosamine

Perma-Clear

N-Acetyl-L-Cysteine (see also L-Cysteine)

Anti-Oxidant

Basic Detox Nutrients
Basic Immune Nutrients

Cysteplus Fibrovive MediClear MediClear Plus

Solvent Remover

Adenosylcobalamin (Cobamamide) (vitamin B12)

Al's Formula
Basic B Complex
Basic Detox Nutrients
Basic Immune Nutrients
Basic Nutrients I, II, III, IV, V
Basic Prenatal

B-Complex #12 B-Complex #1, 3, 5, 6 Children's Basic Nutrients Extra Nutrients

Ferrasorb Fibrovive MediClear MediClear Plus Meta-Fem Nutri-Fem

Adrenal (bovine)

Cortine Cortrex

Adrenal Cortrex (bovine)

Adrenal Cortex Cortine Cortrex

Aesculus Hippocastanum (Horse Chestnut) (Escin)

Venocap

L-Alanine

Al's Formula Basic Pygeum Herbal Metaplex Alfalfa (see Medicago Sativa)

Alpha Ketoglutaric Acid

Metaplex

Alpha Lipoic Acid (Thioctic Acid) (see also R-Lipoic Acid)

Diabenil Heavy Metal Support Pesticide Protector Solvent Remover Thiocid

Thiocid-300

Althea Officinalis (Marshmallow Root)

GI-Encap Heavy Metal Support

Amylase R PP

Dipan-9 Plantizyme

Angelica Sinensis (Dong Quai)

Meta-Balance Meta-Fem

Arabinogalactan (Larch Extract) (Larix Occidentalis)

Arabinex

L-Arginine

Metaplex Perfusia-SR

Arctium Lappa (Burdock)

Liver Cleanse

Artemisia Annua (Sweet Annie) (Chinese Wormwood)

Artecin

Artichoke (see Cynara Scolymus)

Ascorbic Acid (Vitamin C)

Al's Formula Anti-Oxidant Basic Nutrients I. II. III. IV. V

Basic Prenatal

Bio-PMT
Buffered C Powder
Cal-Mag Citrate Powder
Children's Basic Nutrients

Collag-en Cortrex Deproloft Extra Nutrients IM-Encap

MediClear MediClear Plus Medipro

Meta-Fem Nutri-Fem Ocu-Clear Phytisone

Pure Ascorbic Acid Synergisti-C

Thyrocsin Traumogen

Vitamin C with Flavonoids

Ashwagandha (see Withania

Somnifera)

Astragalus Membranaceus

Neo-Cardio Phytisone Phytogen

Astaxanthin

Krill Oil

Bacopa Monniera (Brahmi)

Bacopa Memoractiv Nutri-ADD

Baptisia Tinctoria (Wild Indigo)

IM-Encap Synergisti-C

Barosma Betulina (Buchu)

Uristatin

Bearberry (see Uva Ursi) Beet Leaf (see Beta Vulgaris)

Bentonite Clay

Formula SF734 Undecyn

Berberis Aquifolium (Oregon Grape Root)

Berbercap Entrocap Formula SF734

Beta Carotene (vitamin A) (see also Mixed Carotenes)

Medipro

Beta Vulgaris (Beet Leaf)

Lipotrepein

Betaine (Trimethylglycine)

Al's Formula MediClear MediClear Plus Methyl-Guard

Betaine HCI

B.P.P.

Betaine HCI & Pepsin

Bio-Gest Undecyn

Bifidobacterium Lactis

Formaldehyde Relief

Bilberry (see Vaccinium Myrtillus) Bile Salts (see Ox Bile)

Bioflavonoids (citrus)

Collag-en

Vitamin C with Flavonoids

Biotin

Al's Formula

Basic Detox Nutrients
Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V

Basic Prenatal

B-Complex #1, 3, 5, 6, 12

Biotin-8

OLUMI-O

Children's Basic Nutrients Extra Nutrients MediClear MediClear Plus Medipro Meta-Fem Metaplex Nutri-Fem

Bismuth (citrate)

Supportive Care II

Formula SF734

Bitter Melon (see Momordica Charantia)

Black Cohosh (see Cimicifuga

Racemosa)

Black Currant Oil (see

Gamma Linolenic Acid or Borage Oil)

Black Elder (see Sambucus Nigra)

Black Radish (see Raphanus Sativa

Niger)

Blue Flag (see Iris Versicolor)

Boneset

(see Eupatorium Perfoliatum)

Borage Oil

(see also Gamma Linolenic Acid)

Omega Plus

Boron (aspartate)

Biomins / Biomin II

Boron (citrate)

Citramins / Citramin II

Trace Minerals

Boron (picolinate)

Al's Formula

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V

Basic Prenatal

Boron Picolinate

Children's Basic Nutrients

Extra Nutrients

MediClear

MediClear Plus

Medipro

Meta-Fem

Nutri-Fem

Oscap

Oscap Plus

Pic-Mins

Boswellia Serrata (Frankincense)

AR-Encap

Phytoprofen

T. Asthmatica Plus

Brahmi (see Bacopa Monniera)

Broccoli Extract

Basic Detox Nutrients

Bromelain

M.F. Bromelain

Neo-Cardio

Phytoprofen

Quercenase

Buchu (see Barosma Betulina)

Buckthorn (see Rhamnus Frangula)

Burdock (see Arctium Lappa) Butcher's Broom (see Ruscus

Aculeatus)

Butterbur Root (see Petasites

Hybridus)

Calcium (ascorbate)

Basic Detox Nutrients

Buffered C Powder Supportive Care

page xiv

Calcium (aspartate)

Basic Nutrients I, II Biomins / Biomin II

Tri-Spartate

Calcium (citrate)

Basic Nutrients III, IV

Calcium Citrate

Calcium-Magnesium Citrate

Cal-Mag Citrate Powder

Citramins / Citramin II

Calcium (citrate-malate)

Al's Formula

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients V

Basic Prenatal

Calcium Citramate

Calcium-Magnesium Citramate

Children's Basic Nutrients

Collag-en

Extra Nutrients

MediClear

MediClear Plus

Medipro

Meta-Fem

Nutri-Fem

Oscap

Oscap Plus

Supportive Care II

Calcium d-Glucarate

Calcium d-Glucarate

Calcium Folinate (see Folinic Acid)

Calcium Pantothenate (vitamin B5) (Pantothenic Acid)

Al's Formula

Anti-Oxidant

Basic B Complex

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V

Basic Prenatal

B-Complex #5

B-Complex #1, 3, 6, 12

Bio-PMT

Children's Basic Nutrients

Extra Nutrients

MediClear

MediClear Plus

Medipro

Meta-Fem

Nutri-Fem

Supportive Care II

Calcium Undecylenate (see also Undecenoic Acid)

Undecyn

L-Carnitine

Fibrovive

L-Carnitine

Metaplex

Supportive Care

Carotenes, Mixed (see Mixed Carotenes) (see also Beta Carotene)

Cascara (see Rhamnus Purshiana)

Cassia Acutifolia (Senna)

Herbal Laxative

Catechin (see Uncaria Gambir) Caterpillar Mushroom (see

Cordyceps Sinensis)

Celandine (see Chelidonium Majus)

Cellulase

Plantizyme

Centella Asiatica (Gotu Kola)

Venocap

Chamomile (see Matricaria

Chamomilla) **Chaste Tree (see Vitex Agnus Castus)**

Chelidonium Majus (Celandine)

Lipotrepein

Liver Cleanse

Chinese Rhubarh (see Rheum Officinalis)

Chinese Wormwood (Sweet Annie)

(see Artemisia Annua)

Chionanthus Virginicus (Fringetree)

Liver Cleanse

Chitosan-40kDa

Pharmacol-40

Cholecalciferol (vitamin D3)

Al's Formula

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V Basic Prenatal

Children's Basic Nutrients

D-1000

D-5000

Extra Nutrients

MediClear

MediClear Plus

Medipro

Meta-Fem

Nutri-Fem

Oscap

Oscap Plus

Supportive Care II

Choline (citrate)

Al's Formula Basic B Complex

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V B-Complex #1, 3, 5, 6, 12

Children's Basic Nutrients

Extra Nutrients Krill Oil

Lipotrepein

MediClear

MediClear Plus Medipro

Meta-Fem Nutri-Fem

Chondroitin Sulfate Collag-en

Glucosamine & Chondroitin

Chromium (aspartate)

Biomins / Biomin II

Chromium (citrate)

Citramins / Citramin II Trace Minerals

Chromium (picolinate) Basic Prenatal

Chromium Picolinate

Chromium (UltraChrome®)

Al's Formula **Basic Detox Nutrients**

Basic Immune Nutrients Basic Nutrients I. II. III. IV. V

Children's Basic Nutrients

Diabenil

Extra Nutrients MediClear

MediClear Plus

Medipro

Meta-Fem Metaplex

Nutri-ADD

Nutri-Fem

Pic-Mins

Supportive Care II UltraChrome-200 UltraChrome-500

Cimicifuga Racemosa (Black Cohosh)

Meta-Balance Mvorel

Citrus Bioflavonids (see **Bioflavonoids**) Cobamamide (vitamin B12) (see Adenosylcobalamin)

Coenzyme Q10 (Ubiquinone)

Basic Immune Nutrients Choleast Co-10 Co-Q-100 CoQ100 Softgels Co0300 Softgels Extra Nutrients Fibrovive Neurochondria

Coleus Forskohlii Coleus Forskohlii

Omega-3 w/ CoQ10 Q10 Plus

Copper (aspartate)

Biomins

Copper (citrate)

Citramins

Copper (picolinate)

Al's Formula **Basic Immune Nutrients** Basic Nutrients II, IV, V Basic Prenatal Children's Basic Nutrients **Copper Picolinate** Extra Nutrients **Heavy Metal Support** Medipro Meta-Fem

Nutri-Fem Ocu-Clear Thyrocsin Traumogen

Coptis Chinensis

Coptis Chinensis Extract

Cordyceps Sinensis (Caterpillar Mushroom)

Myco-Immune

Coriolus Versicolor (Turkey Tail)

Myco-Immune

Cramp Bark (see Viburnum Opulus)

Crataegus Oxycantha (Hawthorne Extract)

Al's Formula 010 Plus

Creatine Monohydrate

Fibrovive

Curcuma Longa (Turmeric) (see **Curcumin Phytosome**)

Curcumin Phytosome

AR-Encap **Basic Detox Nutrients** MediClear Plus Meriva Phytoprofen S.A.T. T.A.P.S. Toxic Relief Booster

Cynara Scolymus (Artichoke)

S.A.T. T.A.P.S.

L-Cysteine (see also **N-Acetyl-L-Cysteine**)

Metaplex

D3 (see Cholecalciferol) **Dandelion Root (see Taraxacum**

Officinale)

Deglycyrrhizinated Licorice (DGL) (see also Glycyrrhiza Glabra)

Formula SF734 GI-Encap

Dehydroepiandrosterone (DHEA)

Dehydrone-15 Dehydrone-5

Devil's Claw (see Harpagophytum Procumbens)

DGL (see Deglycyrrhizinated Licorice) (see also Glycyrrhiza Glabra)

DHA (see Docosahexaenoic Acid) DHEA (see Dehydroepiandrosterone)

Dimethylglycine (DMG)

Anti-Oxidant

Dioscorea Villosa (Wild Yam)

Bio-PMT Meta-Balance Meta-Fem Nutri-Fem

Diosmin (Flavonoid)

Diosmin-HMC Venocap

DL-Phenylalanine (DLPA) (see

Phenylalanine)

DMG (see Dimethylglycine)

DMSA (meso-2,3-dimercaptosuccinic

acid) Captomer Captomer-250

Docosahexaenoic Acid (DHA)

DHA from Algae Krill Oil Omega Plus Omega-3 w/CoQ10 Super EPA

Dong Quai (see Angelica Sinensis) Dyer's Woad (see Isatis Tinctoria)

Echinacea Angustifolia

IM-Encap Phytogen Synergisti-C Uristatin

Eicosapentaenoic Acid (EPA) (see **Omega 3 Fatty Acids)**

Eleuthero Extract (Siberian Ginseng) (see Eleutherococcus senticosus)

Eleutherococcus Senticosus (Eleuthero Extract) (Siberian

Ginseng) Deproloft

Phytisone

EPA (see Omega 3 Fatty Acids)

Equisetum Arvense (Horsetail)

Oscap Plus

Escin (Horse Chestnut) (see Aesculus Hippocastanum)

Eupatorium Perfoliatum (Boneset)

IM-Encap

Euphorbium

QC Nasal Spray

Ferulic Acid Meta-Balance

Metaplex

Flavonoids (see Citrus Bioflavonoids, Hesperidin, Quercetin, and Diosmin)

Folate (see Folinic Acid)

Folic Acid

Bio-B12 Folic Acid Liquid

Folinic Acid (Calcium Folinate)

(Folate) Al's Formula

Basic B Complex **Basic Detox Nutrients Basic Immune Nutrients**

Basic Nutrients I, II, III, IV, V

Basic Prenatal B-Complex #12 B-Complex #1, 3, 5, 6

Children's Basic Nutrients Deproloft Extra Nutrients Ferrasorb Fibrovive Folacal MediClear

MediClear Plus Medipro Meta-Fem Nutri-Fem Oscan

Oscap Plus Supportive Care II

Fractionated Pectin (see Pectin-pH

Modified)

Frankincense (see Boswellia Serrata)

Fringetree (see Chionanthus Virginicus) Gambir (Catechin) (see Unca

Gambir (Catechin) (see Uncaria Gambir)

Gamma Aminobutyric Acid

Deproloft PharmaGABA-PRO

Gamma Linolenic Acid (GLA) (see also Borage Oil)

Black Currant Oil Omega Plus

Ganoderma Lucidum (Reishi)

Myco-Immune

Ginger (see Zingiber Officinalis)

Ginkgo Biloba

GB24 Memoractiv Ocu-Clear Q10 Plus

GLA (see Gamma Linolenic Acid or Borage Oil)

Glucosamine Sulfate

AR-Encap Glucosamine & Chondroitin Glucosamine Sulfate Traumogen

Glutamic Acid

Al's Formula Anti-Oxidant Basic Pygeum Herbal Metaplex

Glutamic Acid HCI

Bio-Gest

L-Glutamine

Fibrovive
L-Glutamine
L-Glutamine Powder
MediClear
MediClear Plus
Perma-Clear
Solvent Remover

Glutathione (Reduced)

Anti-Oxidant Extra Nutrients Glutathione-SR MediClear MediClear Plus Neurochondria Ocu-Clear

Glycine

Al's Formula
Anti-Oxidant
Basic Pygeum Herbal
Cal-Mag Citrate Powder
Glycine
MediClear
MediClear Plus
Metaplex
Solvent Remover

Glycyrrhiza Glabra (Licorice) (see also Deglycyrrhizinated Licorice)

Cortrex Phytisone

Goldenseal (see Hydrastis Canadensis)

Gotu Kola (see Centella Asiatica) Grape Seed (Pycnogenols) (see Oligomeric Proanthocyanidins Extract)

Grapefruit Seed Extract

Citricidin Entrocap Undecyn

Grape Seed Phytosome

MediClear Plus Nutri-ADD O.P.C.-100 Planti-Oxidants Toxic Relief Booster Venocap

Green Tea Extract (see Green Tea Phytosome)

Green Tea Phytosome

Basic Detox Nutrients Green Tea Phytosome MediClear MediClear Plus Planti-Oxidants Supportive Care **Grifola Frondosa (Maitake)**

Myco-Immune

Gymnema Sylvestre

Diabenil

Hamamelis Virginiana (Witch Hazel)

Venocai

Harpagophytum Procumbens (Devil's

Claw) AR-Encap

Hawthorne (see Crataegus Oxycantha)

Hesperidin Methyl Chalcone

(Flavonoid)

Diosmin-HMC
Extra Nutrients
HMC Hesperidin
HMC-Plus
Meta-Balance
Meta-Fem
Synergisti-C

L-Histidine

Metaplex

Hops (see Humulus Lupulus) Horse Chestnut (Escin) (see Aesculus Hippocastanum) Horsetail (see Equisetum Arvense)

Humulus Lupulus (Hops)

Sedaplus

Hydrastis Canadensis (Goldenseal)

Phytogen Uristatin

Hydrolyzed Lactalbumin Protein

Hydrolyzed Whey Protein Medipro

5-Hydroxytryptophan

5-Hydroxytryptophan Deproloft

Hypericum Perforatum (St. John's Wort)

Deproloft Hyper-Ex Meta-Balance **Indole-3-Carbinol**

Indole-3-Carbinol Supportive Care

Inositol

Basic Detox Nutrients

Inositol Hexaniacinate (see Niacin)

Inula Racemosa

Neo-Cardio

lodine (Potassium lodide)

Basic Detox Nutrients
Basic Immune Nutrients
Basic Nutrients I, II, III, IV
Basic Prenatal
Biomins / Biomin II
Children's Basic Nutrients
Citramins / Citramin II

Citramins / Citrami Deproloft Extra Nutrients Iodine & Tyrosine Lipotrepein Medipro Meta-Fem Nutri-Fem Thyrocsin

Ipriflavone

Ipriflavone Oscap Plus

Iris Versicolor (Blue Flag)

Herbal Laxative

Iron (aspartate)

Biomins

Iron (citrate)

Citramins Iron Citrate

Iron (picolinate)

Basic Nutrients II, IV
Basic Prenatal
Children's Basic Nutrients
Ferrasorb
Iron Picolinate
Medipro
Nutri-Fem

Isatis Tinctoria (Dyer's Woad)

Isatis

Traumogen

Isolated Whey Protein Fraction

BioDERM

L-Isoleucine

Metaplex

Krill Oil

Krill Oil

Lactase

Plantizyme

Lactobacillus Sporogenes

Lactobacillus Sporogenes MediClear MediClear Plus Nutri-ADD Perma-Clear

Larch Extract (Larix Occidentalis) (see Arabinogalactans)

Larix Occidentalis (Larch Extract) (see Arabinogalactan)

Lecithin (see Phosphatidylcholine)

Lentinula Edodes (Shiitake)

Myco-Immune

Leucoselect (see Grape Seed

Phytosome)

L-Leucine

Metaplex

Licorice (see Glycyrrhiza Glabra, Deglycyrrhizinated Licorice)

Ligusticum

Phytogen

Lipase

D.P.P.

Basic Immune Nutrients

Dipan-9 Plantizyme

Lipoic Acid (see Alpha Lipoic Acid, R-Lipoic Acid)

. ...

Lutein

Ocu-Clear

Lymph (bovine)

IM-Encap

L-Lysine

L-Lysine MediClear MediClear Plus Metaplex

Maitake (see Grifola Frondosa)

Magnesium (ascorbate)

Buffered C Powder

Magnesium (aspartate)

Basic Nutrients I, II Biomins / Biomin II Fibrovive Lipotrepein Magnesium Aspartate

Potassium Magnesium Aspartate

Tri-Spartate

Magnesium (citrate)

Basic Nutrients III, IV Bio-PMT

Calcium Magnesium Citrate Cal-Mag Citrate Powder Citramins / Citramin II Magnesium Citrate

Potassium Magnesium Citrate

Q10 Plus

Toxic Relief Booster

Magnesium (citrate-malate)

Al's Formula Basic Detox Nutrients Basic Immune Nutrients Basic Nutrients V

Basic Prenatal

Calcium-Magnesium Citramate Children's Basic Nutrients

Collag-en
Extra Nutrients
Heavy Metal Support
Magnesium Citramate

MediClear MediClear Plus Medipro Meta-Fem

Neo-Cardio Nutri-Fem Oscap Oscap Plus

Supportive Care II

Malic Acid

Calcium Citramate
Calcium-Magnesium Citramate

Fibrovive

Magnesium Citramate

Nutri-Fem

Manganese (aspartate)

Biomins / Biomin II

Manganese (citrate)

Citramins / Citramin II
Trace Minerals

Manganese (picolinate)

Al's Formula
Basic Detox Nutrients

Basic Immune Nutrients Basic Nutrients I, II, III, IV, V

Basic Prenatal

Children's Basic Nutrients

Collag-en Extra Nutrients Heavy Metal Support Manganese Picolinate MediClear MediClear Plus

Medipro Meta-Fem Nutri-Fem Pic-Mins Traumogen

Marshmallow Root (see Althea Officinalis)

Matricaria Chamomilla (Chamomile)

Sedaplus

Medicago Sativa (Alfalfa)

Bio-PMT

Medium Chain Triglycerides

MediClear MediClear Plus

Melatonin

Melaton 1 Melaton 3 Melaton 5

Meriva (see Curcumin Phytosome) Meso-2,3-dimercaptosuccinic Acid (see DMSA)

L-Methionine

Heavy Metal Support Lipotrepein Methylcobalamin (vitamin B12)

Al's Formula Basic B Complex Basic Detox Nutrients Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V Basic Prenatal

B-Complex #12
B-Complex #1, 3, 5, 6

Bio-B12

Children's Basic Nutrients
Deproloft
Extra Nutrients
Ferrasorb
Fibrovive
Lipotrepein
MediClear
MediClear Plus
Medinro

MediClear Plus Medipro Meta-Fem Methylcobalamin Methyl-Guard Neurochondria Nutri-ADD Nutri-Fem Oscap Oscap Plus

Supportive Care II

Thyrocsin

5-Methyl-tetrahydrofolate 5-MTHF Al's Formula Basic B Complex Basic Detox Nutrients Basic Immune Nutrients Basic Nutrients I, II, III, IV, V

Basic Prenatal B-Complex #12 B-Complex #1, 3, 5, 6 Children's Basic Nutrients Extra Nutrients

Ferrasorb
MediClear Plus
Medipro
Meta-Fem
Methyl-Guard
Neurochondria
Nutri-Fem
Oscap
Oscap Plus
Supportive Care II

Milk Thistle Seed (see Silybum Phytisome)

Mixed Carotenes (see also Beta Carotene, Vitamin A)

Al's Formula Basic Detox Nutrients **Basic Immune Nutrients** Basic Nutrients I, II, III, IV, V

Basic Prenatal

Children's Basic Nutrients

Extra Nutrients MediClear MediClear Plus Meta-Fem Nutri-Fem Ocu-Clear Supportive Care II

Mixed Tocopherols

MediClear MediClear Plus Ultimate-E

Molybdenum (aspartate)

Biomins / Biomin II

Molvbdenum (citrate)

Citramins / Citramin II Trace Minerals

Molybdenum (picolinate)

Al's Formula **Basic Detox Nutrients Basic Immune Nutrients** Basic Nutrients I, II, III, IV, V **Basic Prenatal** Children's Basic Nutrients Extra Nutrients

Heavy Metal Support MediClear MediClear Plus Medipro Meta-Fem Molybdenum Picolinate

Nutri-Fem

Pic-Mins Supportive Care II

Momordica Charantia (Bitter Melon)

Diabenil

MSM (Methyl Sulfonyl Methane)

AR-Encap **Basic Detox Nutrients** MediClear MediClear Plus MSM-750

Mucopolysaccharides

Collag-en

Musa Paradisiacal (Plantain Banana)

Niacin (from Inositol Hexaniacinate) (vitamin B3)

Neo-Cardio Niasafe-600

Niacin (vitamin B3)

Al's Formula Basic B Complex **Basic Detox Nutrients Basic Immune Nutrients** Basic Nutrients I, II, III, IV, V B-Complex #3 Rin-PMT Children's Basic Nutrients Extra Nutrients

MediClear MediClear Plus Medipro Meta-Fem Neo-Cardio Nutri-Fem

Al's Formula

Niacinamide (vitamin B3)

Anti-Oxidant Basic B Complex **Basic Detox Nutrients Basic Immune Nutrients** Basic Nutrients I, II, III, IV, V Basic Prenatal B-Complex #3 B-Complex #1, 5, 6, 12 Children's Basic Nutrients Extra Nutrients MediClear MediClear Plus Medipro Meta-Fem Niacinamide Nutri-Fem Supportive Care II

Oligomeric Proanthocyanidins Extract (Grape Seed) (Pycnogenols) see Grape Seed Phytosome

Olive Leaf

Olive Leaf Extract

Omega-3 Fatty Acids (EPA/DHA)

Krill Oil Omega Plus Omega-3 w/CoQ10 Super EPA

Omega-6 Fatty Acids (GLA)

Bio-PMT Black Currant Oil Krill Oil Omega Plus

Omega-9 Fatty Acids

Krill Oil

Oregon Grape Root (see Berberis Aquifolium)

Oriental Ginseng (see Panax Ginseng)

Ox Bile (Bile Salts)

Bio-Gest

Paeonia Suffruticosa (Tree Peony)

Panax Ginseng (Oriental Ginseng)

Phytisone

Pancreatin (porcine)

Bio-Gest Dipan-9

Pantethine

Deproloft Formaldehyde Relief Pantethine Phytisone

Pantothenic Acid (vitamin B5) (see **Calcium Pantothenate)**

Papain

Bio-B12

Passiflora Incarnata (Passion

Flower) Sedaplus

Pau D' Arco (Bark) (see Tabebuia Impetiginosa)

Pectin

Medibulk

Pectin (pH-Modified Citrus)

Fractionated Pectin Fractionated Pectin Powder

Peony (Tree) (see Paeonia Suffruticosa)

Pepsin (porcine)

Betaine HCI & Pepsin **Bio-Gest**

Petasites hybridus (Butterbur root)

Phenylalanine (DLPA)

DL-Phenylalanine

Phosphatidylcholine (Lecithin)

Phosphatidyl Choline

Phosphatidylserine (Isolate)

Iso-Phos Memoractiv Neurochondria Nutri-ADD

Picrorhiza Kurroa

Phytoprofen TAPS T. Asthmatica Plus

Piper Longa

T. Asthmatica Plus

Plantain Banana (see Musa **Paradisiacal**)

Plant Sterols and Sterolins

Moducare

Policosanol

Policosanol

Potassium (ascorbate)

Buffered C Powder

Potassium (aspartate)

Basic Nutrients I, II Biomins / Biomin II Fibrovive

Potassium Magnesium Aspartate Tri-Spartate

Potassium (citrate)

Basic Nutrients III, IV Citramins / Citramin II Heavy Metal Support Potassium Citrate

Potassium Magnesium Citrate

010 Plus

Potassium (citrate-malate)

Al's Formula Basic Detox Nutrients

Basic Immune Nutrients

Children's Basic Nutrients

Extra Nutrients MediClear

Basic Nutrients V

MediClear Plus

Medipro Meta-Fem Nutri-Fem

Potassium Iodide (see Iodine)

L-Proline

Metaplex

Protease

B.P.P. Dipan-9 Plantizyme

Prune Powder

Medibulk

Prunus Africanus (Pygeum)

Basic Pygeum Herbal

Psyllium Seed Husk Powder

Medibulk

Pycnogenols (see Grape Seed

Phytosome)

Pygeum (see Prunus Africanus)

Pyridoxal 5' Phosphate (vitamin B6)

5-Hydroxytryptophan Al's Formula

Anti-Oxidant

Allu-Oxidalit

Basic B Complex
Basic Detox Nutrients

Basic Immune Nutrients

Pagio Nutrionto I II III IV

Basic Nutrients I, II, III, IV, V

Basic Prenatal B-Complex #6

B-Complex #1, 3, 5, 12

Bio-PMT

Children's Basic Nutrients

Cortrex

Deproloft Extra Nutrients

Formaldehyde Relief

Lipotrepein

Fibrovive

MediClear

MediClear Plus

Medipro

Meta-Fem

Methyl-Guard Nutri-Fem

Oscap

Oscap Plus Phytisone

Pyridoxal 5' Phosphate

Supportive Care II

Traumogen

Pyridoxine HCI (vitamin B6)

B-Complex #1, 3, 5, 6, 12

Quercetin

Supportive Care

Quercetin Chalcone (Flavonoid)

Diabenil MediClear

MediClear Plus

Ocu-Clear Perma-Clear

Planti-Oxidants

OC Nasal Sprav

Quercenase

Quercetone

Supportive Care

T. Asthmatica Plus

Raphanus Sativa Niger (Black

Radish)

Lipotrepein

Red Yeast Rice

Choleast

Reduced Glutathione

(see Glutathione)

Reishi (see Ganoderma Lucidum)

Rhamnus Frangula (Buckthorn)

Herbal Laxative

Rhamnus Purshiana (Cascara)

Herbal Laxative

Rheum Officinalis (Chinese Rhubarb)

Herbal Laxative

Rhodiola Rosea

Bio-PMT

Deproloft Rhodiola

Sedaplus

Riboflavin (vitamin B2)

B-Complex #1, 3, 5, 6, 12

Riboflavin 5' Phosphate (vitamin B2)

Al's Formula

Anti-Oxidant

Basic B Complex

Basic Detox Nutrients

Basic Immune Nutrients
Basic Nutrients I, II, III, IV, V

Basic Prenatal

B-Complex #1, 3, 5, 6, 12

Bio-PMT

Children's Basic Nutrients

Cortrex

Extra Nutrients

MediClear

MediClear Plus

Medipro

Meta-Fem

Nutri-Fem Ocu-Clear

Riboflavin 5' Phosphate

Supportive Care II

R-Lipoic Acid (Thioctic Acid) (see also Alpha Lipoic Acid)

Anti-Oxidant

Basic Detox Nutrients

Basic Immune Nutrients

Extra Nutrients

Fibrovive

Neurochondria

Ocu-Clear R-Lipoic Acid

Ruscus Aculeatus (Butcher's Broom)

Venocap

Saccharomyces Boulardii

Perma-Clear

Sacro-B

Sambucus Nigra (Black Elder)

IM-Encar

Saw Palmetto (see Serenoa Repens)

Schizandrae Chinensis

Phytogen

Schizophyllum Commune (Split Gills)

Myco-Immune

Selenium (aspartate)Biomins / Biomin II

Selenium (citrate)

Citramins / Citramin II

Selenium Citrate Trace Minerals

Selenium (picolinate)

Al's Formula

Anti-Oxidant

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V

Basic Prenatal Children's Basic Nutrients

Extra Nutrients

Formaldehyde Relief

Heavy Metal Support MediClear

MediClear Plus

Medipro

Meta-Fem

Nutri-Fem Ocu-Clear

Pic-Mins

Selenium Picolinate

Thyrocsin Toxic Relief Booster

Selenium (yeast)

Supportive Care II

Senna (see Cassia Acutifolia)

Serenoa Repens (Saw Palmetto)

Serenoa Kepe

Al's Formula Basic Pygeum Herbal

Serenoa Gelcaps

L-Serine Metaplex

Shiitake (see Lentinula Edodes) Siberian Ginseng

(see Eleutherococcus Senticosus)

(Eleuthero Extract)

Siliphos® (Silybum-Phosphatidylcholine) (see Silybin

Phytosome)

Silybin Phytosome

Basic Detox Nutrients

Planti-Oxidants

S.A.T. Siliphos

TAPS

Toxic Relief Booster

Silybum Marianum (Milk Thistle Seed)

Liver Cleanse

Slippery Elm (see Ulmus Fulva)

Soy Isoflavones

Soy Isoflavones

Soy Phosphatide Complex

Phosphatidyl Choline

Spleen (bovine)

IM-Encap

Split Gills (see Schizophyllum Commune)

St. John's Wort (see Hypericum

Perforatum)

Sterolins and Sterols

Moducare

Stinging Nettle (see Urtica Dioica)

Sulfur (Thioglycerol)

Sulfonil

Sweet Annie (Chinese Worm Wood)

(see Artemisia Annua)

Tabebuia Impetiginosa (Pau D'Arco) (Bark)

IM-Encap

Taheebo (see Tecoma Curialis)

Taraxacum Officinale (Dandelion

Basic Detox Nutrients Lipotrepein

Liver Cleanse

Taurine

MediClear MediClear Plus Ocu-Clear Q10 Plus

Solvent Remover

Taurine

Tecoma Curialis (Taheebo)

IM-Encap

Terminalia Arjuna

Neo-Cardio

L-Theanine

Theanine

Thiamine (Benfotiamine - vitamin B1)

Neurochondria

Thiamine HCI (vitamin B1)

Al's Formula Anti-Oxidant Basic B Complex

Basic Detox Nutrients

Basic Immune Nutrients Basic Nutrients I, II, III, IV, V

Basic Prenatal

B-Complex #1 B-Complex #3, 5, 6, 12

Children's Basic Nutrients

Cortrex Extra Nutrients

Fibrovive Formaldehyde Relief

MediClear MediClear Plus Medipro

Meta-Fem Nutri-Fem

Pesticide Protector

Phytisone

Supportive Care II

Thioctic Acid (see Alpha Lipoic acid, R-Lipoic acid)

Thioglycerol (see Sulfur)

L-Threonine

Metaplex

Thymus (bovine)

IM-Encap

Time-Sorb

Perfusia-SR

d-Alpha-Tocopherol (vitamin E)

E-500

Ultimate-E

d-Alpha-Tocopheryl (vitamin E)

Al's Formula

Basic Detox Nutrients
Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V Basic Prenatal

Bio-PMT

Children's Basic Nutrients

Collag-en

Extra Nutrients MediClear

MediClear Plus

Medipro

Meta-Fem Nutri-Fem

Ocu-Clear

Pesticide Protector Supportive Care II

Thyrocsin

Tree Peony (see Paeonia Suffruticosa)

Tremella Fuciformis (White Wood

Myco-Immune

Trimethylglycine (see Betaine)

L-Tryptophan

L-Tryptophan

Turkey Tail (see Coriolus Versicolor)
Turmeric (see Curcumin Phytosome)

Tylophora Asthmatica

T. Asthmatica Plus

L-Tyrosine

Deproloft lodine & Tyrosine

L-Tyrosine Metaplex

Thyrocsin

Ubiquinone (see Coenzyme Q10)

Ulmus Fulva (Slippery Elm)

GI-Encar

10-Undecenoic Acid (see also Calcium Undecylenate)

Formula SF722

Uncaria Gambir (Catechin)

Bio-PMT

Formula SB313

HMC-Plus

Lipotrepein

Nutri-Fem

Traumogen

Urtica Dioica (Stinging Nettle)

Liver Cleanse

Uva Ursi (Bearberry)

Bio-PMT

Heavy Metal Support

Liver Cleanse

Uristatin

Vaccinium Myrtillus (Bilberry)

Diabenil

Ocu-Clear

Planti-Oxidant

Vacimyr

Valeriana Officinalis (Valerian)

Myorel

Sedaplus

L-Valine

Metaplex

Vanadium (aspartate)

Biomins / Biomin II

Vanadium (citrate)

Citramins / Citramin II

Trace Minerals

Vanadium (picolinate)

Al's Formula

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V

Children's Basic Nutrients

Extra Nutrients

MediClear

MediClear Plus

Medipro

Meta-Fem

Nutri-Fem

Oscap

Oscap Plus Pic-Mins

Vanadyl Sulfate

Diabenil

VanoxvI 25

Vanoxyl 5

Viburnum Opulus (Cramp Bark)

Myorel

Vinpocetine

Fibrovive

Memoractiv

Vinpocetine

Vitamin A (palmitate)

Al's Formula

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I, II, III, IV, V

Basic Prenatal

Children's Basic Nutrients

Extra Nutrients

IM-Encap

MediClear

MediClear Plus

Meta-Fem

Nutri-Fem

Pesticide Protector Supportive Care II

Vitamin A

Vitamin B1 (see Thiamine HCI,

Thiamine)

Vitamin B2 (see

Riboflavin 5'-Phosphate, Riboflavin)

Vitamin B3 (see Niacin, Niacinamide,

Inositol Hexaniacinate)

Vitamin B5 (see Calcium

Pantothenate)

Vitamin B6

(see Pyridoxal 5'-Phosphate,

Pyridoxine HCI)

Vitamin B12 (see Adenosylcobalamin,

Methylcobalamin)

Vitamin C (see Ascorbic Acid)

Vitamin D (see Cholecalciferol)

Vitamin E (see d-Alpha Tocopherol,

d-Alpha Tocopheryl)

Vitamin K1

Al's Formula

Basic Detox Nutrients

Basic Nutrients V

Basic Prenatal

Children's Basic Nutrients

Meta-Fem

Nutri-Fem

Oscap Plus

Vitamin K2

Oscap Plus

Vitamin K2

Vitex Agnus Castus (Chaste Tree)

Meta-Balance

White Wood Ear (see Tremella

Fuciformis)

Wild Indigo (see Baptisia Tinctoria)

Wild Yam (see Dioscorea Villosa)

Witch Hazel (see Hamamelis

Virginiana)

Withania Somnifera (Ashwagandha)

Myorel

Phytisone

Thyrocsin

Zinc (aspartate)

Biomins / Biomin II

Zinc (carbonate)

Zinc Carbonate

Zinc (citrate)

Citramins / Citramin II Trace Minerals

Zinc Citrate

Zinc (picolinate)

Al's Formula

Anti-Oxidant

Basic Detox Nutrients

Basic Immune Nutrients

Basic Nutrients I. II. III. IV. V

Basic Prenatal

Bio-B12

Bio-PMT

Children's Basic Nutrients

Collag-en

Double Strength Zinc Picolinate

Extra Nutrients

Heavy Metal Support

IM-Encap

MediClear

MediClear Plus

Medipro

Meta-Fem

Nutri-Fem

Ocu-Clear

Phytisone

Pic-Mins

Supportive Care II

Thyrocsin

Traumogen Zinc Picolinate

Zinc (sulfate)

Zinc Sulfate, 7-Hydrate

Zingiber Officinalis (Ginger)

Perma-Clear Phytisone





to us quality isn't a sales tool ... it's our passion





Trust

Nationally recognized institutions such as Columbia, Tufts, and University of California select Thorne products for their research.

This fact is a testament to Thorne's quality control standards, good manufacturing practices, a real in-house laboratory with qualified technicians, certification as a drug manufacturer by the Therapeutic Goods Administration of Australia, and most important, follow-through on our commitment to manufacture products that are the purest, hypoallergenic, and efficacious. These institutions know that the product utilized in their studies will stand up to scientific scrutiny, because Thorne is the manufacturer.

Then and Now

The standards for exceptional formulations, quality, and purity were secured more than twenty years ago in Thorne's original philosophy established by company founders Al and Kelly Czap. Short and to the point, "Provide the purest nutritional supplements possible."

Today, Thorne Research is a vital growing manufacturing facility in Sandpoint and Dover, Idaho, covering more than 76,000 square feet and employing an expanding personnel base of 140 individuals.

Thorne's first major recognition originated when the U.S. Navy requested Thorne to manufacture the active and placebo compounds for a study with naval personnel. Since then reliance on Thorne as a manufacturer of product for studies published in peer-reviewed journals has progressed to include both single and multiple studies with Columbia University, University of California San Francisco, University of Washington, Oregon Health Sciences University, Oregon State University, and Tufts University.

The nutritional supplement business has changed dramatically since Thorne's inception. However, under the continued direction of the founders our philosophy has never wavered, rather it has expanded. Our serious commitment to people's health and well being is reflected in every process we employ and supplement we manufacture.

The Real Difference

Thorne is a manufacturer. This is critical. A company who manufactures their own products has complete control over every aspect of the manufacturing process to ensure all products are of the highest quality and purity. This isn't a given, but if employed diligently it offers a manufacturer the opportunity to tightly control how the product is made. If a product label states "Distributed By" or "Manufactured For," the company whose name appears on this label DID NOT manufacture it.

GMPs - The Roadmap

GMPs are, in basic terms, a method of ensuring consistency in manufacturing; simply stated, they are an instruction manual for quality. If followed stringently, GMPs ensure that products are manufactured using the same criteria every time. Consumer safety is assured through these controls of the manufacturing process, from acquisition of raw materials and laboratory analysis to the final labeling and shipping of finished goods.

SOPs - The Details

Based on the GMP roadmap, specific and finite instructions must be developed and written for each product and every aspect of the manufacturing process. These precise directives, Standard Operating Procedures (SOPs), consist of hundreds of pages, and are one of the most important components of quality control. The development of Thorne's SOPs has taken years of constant adjustments and improvements in manufacturing methods and quality control procedures. Every Thorne employee is mandated to follow these SOPs to the smallest detail.

Testing 1...2...3

Having an in-house, state-ofthe-art laboratory is absolutely necessary to manufacture superior nutritional supplements. Thorne's in-house laboratory is a primary component to achieve our mission of maintaining strict control over every aspect of manufacture and quality. Our laboratory allows for timely, accurate, cost-effective testing that ensures every product, from raw material to finished goods meets all quality requirements and is an integral piece of our TGA certification. Our state-of-the art lab equipment includes:

- → Inductively Coupled Plasma Spectrometer (ICP)
- → Two High Pressure Liquid
 Chromatographs (HPLC)
 with Series 200 Diode
 Array Detectors and Series
 200 Fluorescence
 Detectors
- → Gas Chromatograph/Mass

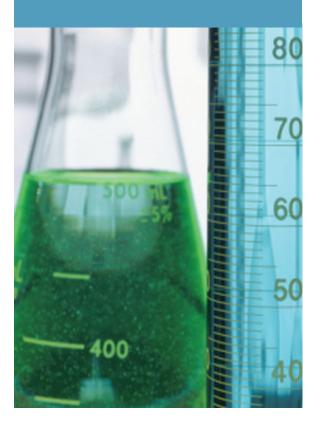
 Spectrometer (GCMS) with

 Flame Fluorescence Detector

 and Electron Capture Detector
- → Near-Infrared Spectrophotometer
- → Microbiology lab
- → Peroxide analysis
- \rightarrow U.S.P. dissolution

GMP

One of many Good **Manufacturing Practices** (GMPs) employed by Thorne is the separate, sealed encapsulation rooms, individually ventilated with filtered air for each product run. After manufacturing a specific product each encapsulating machine is completely dismantled and cleaned. All blending encapsulating rooms are thoroughly cleaned top to bottom. Strict adherence to these GMPs ensures there is no cross-contamination from one product to the next.



U.S. and International GMP Certification

Until recently there was no official regulatory agency in the United States that certified or set guidelines for GMPs. However, in the summer of 2007, the Food and Drug Administration handed down GMPs for the dietary supplement industry. All companies, depending upon their size, must comply with these guidelines starting July 2008, and no later than July 2010.

However, Thorne Research became a leader in the certification process in 2001, when they chose to be audited and inspected by the internationally recognized Therapeutic Goods Administration (TGA) of Australia. A certification from this prestigious government agency is recognized and accepted worldwide. This comprehensive certification process is conducted on-site every three years. It covers finished product manufacture, quality control testing, packaging, labeling and release-for-sale.

Thorne currently is the only U.S. manufacturer of nutritional supplements for the professional market that has achieved this TGA certification for "medicinal products," the same certification required by the Australian pharmaceutical industry. For further information on the TGA certification and an in-depth discussion of Thorne's GMPs go to our website www. thorne.com and click on "Quality Control & GMP."

Why Capsules?

Thorne's reason is in our original philosophy "To provide the purest supplements possible." Tablets require other ingredients such as binders, lubricants, coatings, disintegrants and other excipients. These are necessary to hold the tablet together or in assisting them to break apart. Some are even sprayed with shellac (called pharmaceutical glaze) or vegetable protein, frequently derived from corn to make them shiny and easier to swallow.

Ingredients – Ours vs. Theirs

Only pure raw materials can produce truly hypoallergenic supplements. Manufacturers basically have two choices when selecting raw materials...pure raw materials, or raw materials adulterated to facilitate manufacturing. A typical choice might be the purchase of pure B vitamins versus B vitamins coated to mask the taste. Similarly, the purchase of pure pancreatin, pepsin and bromelain, versus enzymes diluted with lactose. Further, all commercial sources for vitamins B12, D, K, or biotin are diluted with additives such as lactose, corn starch and preservatives such as BHT. Thorne's commitment to create hypoallergenic sources for these nutrients led us to innovations in manufacturing that allow us to use pure, unadulterated ingredients, as well as to create our own mineral chelates in-house...another example of our dedication to product purity and quality.

Choices made by a supplement manufacturer make the difference between an excellent, effective welltolerated product and an inferior, poorly absorbed product with potential allergenic effects.

The Final Word

During the quarter century since Thorne's inception few companies have attempted what we have accomplished. The terms quality and purity are used in the marketing of many dietary supplement brands. At Thorne Research these are not just slogans to be taken for granted. They are Thorne's way of innovating, raising the bar, and setting the standards for product formulation, raw materials purity, manufacturing, quality control, GMPs, and government certification.

Avoiding Unnecessary Additives

The complexities of manufacturing nutritional supplements are vast and become more so when a company is dedicated to quality. Powdered ingredients all have different characteristics; some are dry and easy-flowing, while others are sticky or attract moisture from the air. To facilitate using these ingredients during manufacturing most supplement manufacturers blend lubricants such as stearic acid, magnesium stearate, calcium stearate, and ascorbyl palmitate or other additives such as lactose, dextrose, and sucrose into the formula. The only benefit these added ingredients have is to the manufacturer in faster production and easier clean-up. The downside to their use is the adverse impact on both solubility and bioavailability of the nutrients to the patient, particularly those with compromised digestion or absorption.

Pharmaceutical Technology published the results of a classic study using a nutrient with magnesium stearate.

"After 10 minutes mixing time with magnesium stearate, the percent dissolution of the nutrient (after 20 minutes in solution) decreased from 80-90% dissolution without magnesium stearate, to 25% with magnesium stearate."

"When mixing time of the nutrient with the stearate was extended to 28 minutes, less than 20% dissolution (by U.S.P. dissolution procedure) was obtained, even after 35 minutes in solution."

Thorne supplements are manufactured with no lubricants or product compromising flowing agents. Our complex process utilizes twice the equipment, manufacturing rooms and employees to produce the same quantity of encapsulated product as our competitors. Thorne manufactures products to a rigid set of standards that require more time and effort. It's a simple concept, one that places the patient's health and needs ahead of the manufacturer's bottom line.

Technical Support

To assist you with product and clinical protocol questions, Thorne provides prompt, accurate, and friendly technical support from a qualified staff of physicians who have the clinical experience and nutritional supplement background necessary to help you make the right wellness decisions for your patients. This staff includes respected authors and lecturers who understand the importance of keeping abreast of the latest research, and providing appropriate information to you in a timely manner. Our technical staff is available to Thorne customers Monday through Friday, from 6:30 AM to 5:00 PM (Pacific time).



Alternative Medicine Review

Alternative Medicine Review began its fourteenth year of publication in January 2009. Published quarterly, this peer-reviewed journal is indexed on Medline, Embase, Cinahl, Index Medicus, Current Contents® / Clinical Medicine, Science Citation Index Expanded (SciSearch), and Journal Citation Reports / Science Edition. This journal publishes literature reviews, original research, editorial comment, monographs, and book reviews on clinically relevant subjects and is one of the most recognized and respected publications in the industry. Alternative Medicine Review has featured articles by such authors as Drs. Parris Kidd, Jonathan Wright, John Cannell, Bruce Hollis, Alan Gaby, Rejean Drouin, Yves Poulin, Melvyn Werbach, Patrick Bouic, Lyn Patrick, Jeffrey Bland, Peter D'Adamo, Greg Kelly, Walter Crinnion, and Davis Lamson.

Thorne Research is proud to publish *Alternative Medicine Review* and provides its practitioner customers a complimentary subscription.

NEW FROM THORNE PHYTOSOME TECHNOLOGY

marked enhancement of bioavailability significantly greater clinical benefits assured delivery to the tissues no compromise of nutrient safety

Thorne Research has teamed with Indena S.p.A., the worldwide expert in botanical extract technology, to bring health-care practitioners these unique, well-absorbed, botanical extracts.

The following products have been enhanced by adding Meriva (Curcumin Phytosome), Siliphos (Silybin Phytosome), Leucoselect (Grape Seed Extract Phytosome), and/or Green Tea Phytosome MediClear Plus, Meriva, AR-Encap, Phytoprofen, S.A.T., T.A.P.S., OPC-100, Basic Detox Nutrients, Toxic Relief Booster, Supportive Care, Venocap, Green Tea Phytosome, PlantiOxidants, and Siliphos

(click product name to go to product pages)

Phytosomes

THE ULTIMATE IN ABSORPTION OF PLANT EXTRACTS

Although a plethora of studies indicate health benefits of plant constituents, including flavonoids, many of them are poorly absorbed orally, with only a small fraction of a given dose reaching the bloodstream.

The poor absorption of flavonoid nutrients is likely due to two main factors. First, these are multiple-ring molecules not quite small enough to be absorbed from the intestine into the bloodstream by simple diffusion. Nor does the intestinal lining actively absorb them, as occurs with some vitamins and minerals. Second, flavonoid molecules typically have poor fat solubility, limiting their ability to pass across the lipid-rich outer membranes of the enterocytes of the small intestine.

PHYTOSOME TECHNOLOGY MEETS THE CHALLENGE OF POOR ABSORPTION

Water-soluble flavonoid molecules can be converted into lipid-compatible molecular complexes, aptly called phytosomes, making them better able to transition across the lipid-friendly cell membrane into the bloodstream.

Phosphatidylcholine (PC) and similar phospholipids are well absorbed when taken orally and are soluble both in water and lipids. In addition, PC is the principal phospholipid and molecular building block in cell membranes, making it the most suitable molecule to enhance the absorption of plant extracts.

Specifically, phytosomes are a precise linkage of a plant flavonoid molecule with a PC molecule. This complex allows superior absorption and utilization of the attached botanical extract. A bond is formed between the two molecules to create a hybrid molecule. This hybrid is highly lipid-soluble, better suited to merge into the lipid phase of the enterocyte's outer cell membrane and then reach the bloodstream.

WE ARE VERY EXCITED TO BRING TO YOU THESE UNIQUE PRODUCTS



no prediluted ingredients or hidden preservatives

The keystone of every nutritional product line is a multiple vitamin-mineral supplement. At Thorne we believe this is the starting point for all nutritional protocols and that these products should contain all the essential nutrients. We also believe by utilizing the purest, most bioavailable raw materials without unnecessary additives and preservatives, patient outcomes are vastly improved.

multiple-vitamin mineral products with real options for real patients

No other supplements on the market can match the QUALITY and PURITY of those manufactured by Thorne Research because nobody else does what we do.

Thorne multiple vitamin-mineral formulas:

- → contain hypoallergenic ingredients
- are free of pre-diluted ingredients and hidden preservatives
- do not contain magnesium stearate, stearic acid, or ascorbyl palmitate
- are better absorbed and bioavailable for your patients
- provide the active forms of folic acid –
 5-methyl-tetrahydrofolate and folinic acid in a balanced 1:1 ratio
- provide the active forms of B12 methylcobalamin and adenosylcobalamin in a balanced 1:1 ratio
- provide the activated cofactors of B6 and B2
- contain advanced mineral forms for optimal absorption, including aspartates, citrates, and citrate-malates
- feature trace minerals exclusively available from Thorne as picolinates and our own patented UltraChrome®



VITAMIN COFACTORS

Active B-vitamins (the type of B-vitamins used within our cells) are extremely important to everyone, especially individuals who may not be able to convert non-active vitamins to their active forms in the liver because of compromised liver function, poorly functioning enzymes, digestive disturbances, or age. Utilizing these active cofactors enhances bioavailability and assures that the body is getting the nutrients it needs. All our multi formulas contain active B-vitamins, including 5-methyl-tetrahydrofolate and folinic acid (folate), pyridoxal 5'-phosphate (B6), riboflavin 5' phosphate (B2), and adenosylcobalamin and methylcobalamin (B12).

An adequate intake of folate is vitally important for optimal health, as folate deficiency is implicated in numerous disease processes. Our multiple vitaminmineral formulas contain the two tissue-ready, active forms of folate – 5-methyl-tetrahydrofolate (5-MTHF) and folinic acid – in an optimal 1:1 ratio.

Vitamin B12 is included in our multis as the activated forms as well. Adenosylcobalamin and methylcobalamin do not require any conversion to be utilized in the body and are provided in a 1:1 ratio for optimal usage. Adenosylcobalamin is essential for the metabolism of certain fats. Methylcobalamin, on the other hand, is an important cofactor in the enzyme methionine synthase, which recycles the amino acid metabolite homocysteine and enhances the formation of methyl donor molecules involved in cardiovascular function, sleep, blood cell formation, and nerve function

For over 20 years our multiple vitamin-mineral formulas have set the standard for exceptional formulations in the nutritional supplement industry. Like all Thorne products, our multiple vitamin-mineral formulas are manufactured using superior raw materials and highly sophisticated methods of quality assurance and control.

multi-vitamin-mineral

Basic Nutrients I, II, III, IV, and V providing a variety of choices tailored to specific patient requirements

Our Basic Nutrients multiple vitamin-mineral formulations offer five options for your patients:

Basic Nutrients I and II: These were the first comprehensive multis from Thorne Research. These multis contain active and highly bioavailable vitamins and minerals, and are available with calcium, magnesium, and potassium as aspartate mineral chelates for optimized energy production. Basic Nutrients I contains no copper or iron, while Basic Nutrients II contains both copper and iron as picolinate chelates.

Basic Nutrients III and IV: These multis contain all the ingredients of I and II, and provide calcium, magnesium, and potassium as well-absorbed citrate mineral chelates. Basic Nutrients III contains no copper or iron, while Basic Nutrients IV contains both copper and iron as picolinate chelates.

Basic Nutrients V: Our most advanced Basic Nutrients formula provides a comprehensive multi with calcium, magnesium, and potassium as citrate-malate mineral chelates – the most soluble and absorbable of these mineral chelates. Basic Nutrients V contains vitamin K1 and copper, but no iron or iodine, for those patients not needing supplemental iron (like young men) or who are sensitive to extra iodine.

Now all our Basic Nutrients I - V contain 1,000 IU of vitamin D3 in a full daily dose.

Advanced Formula BASIC NUTRIENTS V

Six Capsules Contain:		% DV
Vitamin A (as 2,500 IU Palmitate and		
12,500 IU Mixed Carotenes)	15,000 IU.	3009
Vitamin C (as Ascorbic Acid)	850 mg.	14179
Vitamin D (as Vitamin D3)	1000 IU.	2509
Vitamin E (as d-Alpha-Tocopheryl)	400 IU.	13339
Vitamin K (as Vitamin K1)	100 mcg.	1259
Thiamine (as Thiamine HCI)	40 mg.	26679
Riboflavin (from Riboflavin 5'- Phosphate	e) 11 mg.	6479
Niacin (from 30 mg Niacin and		
from 130 mg Niacinamide)	160 mg.	8009
Vitamin B6 (as Pyridoxal 5'- Phosphate)	10 mg.	5009
Folate (500 mcg as Calcium Folinate and	l	
500 mcg as 5-Methyl-tetrahydrofolate)	1000 mcg.	2509
Vitamin B12 (225 mcg as Adenosylcobal	amin	
and 225 mcg as Methylcobalamin)	450 mcg.	75009
Biotin	400 mcg.	1339
Pantothenic Acid (as Calcium Pantothena	te) 413 mg.	41309
Calcium (as Calcium Citrate-Malate)	300 mg.	309
Magnesium (as Magnesium Citrate-Malate	e) 285 mg.	719
Zinc (as Zinc Picolinate)	15 mg.	1009
Selenium (as Selenium Picolinate)	200 mcg.	2869
Copper (as Copper Picolinate)	1.5 mg.	759
Manganese (as Manganese Picolinate)	6 mg.	3009
Chromium (as UltraChrome®)	200 mcg.	1679
Molybdenum (as Molybdenum Picolinate) 100 mcg.	1339
Potassium (as Potassium Citrate-Malate)	90 mg.	2.59
Boron (as Boron Picolinate)	3 mg.	*
Choline Citrate	100 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

†A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules Code: VM5 Dosage: 1 to 2 capsules tid

product data sheet

Why does everyone need to take a multiple vitamin-mineral supplement?

Nutrition experts worldwide agree that, due to the state of the food supply and because few Americans eat the recommended five servings daily of health-giving fruits and vegetables, a multiple vitamin-mineral formulation should be taken daily. Even the Journal of the American Medical Association, not known as a supporter of dietary supplements, has finally agreed that everyone should take a multi. A multi could be considered "dietary insurance," a small price to pay to be sure one gets all the essential nutrients daily, even if they don't eat right. Even greater health benefits can be realized if one eats a healthy diet in addition to taking a multi.

multi-vitamin-mineral

Aspartate Formula **BASIC NUTRIENTS II**

Six Capsules Contain:		% DV
Vitamin A (as 2,500 IU Palmitate and		
12,500 IU Mixed Carotenes)	15,000 IU.	300%
Vitamin C (as Ascorbic Acid)	850 mg.	1417%
Vitamin D (as Vitamin D3)	1000 IU.	250%
Vitamin E (as d-Alpha-Tocopheryl)	400 IU.	1333%
Thiamine (as Thiamine HCI)	40 mg.	2667%
Riboflavin (as Riboflavin 5'- Phosphate)	11 mg.	647%
Niacin (from 30 mg Niacin and		
from 130 mg Niacinamide)	160 mg.	800%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	10 mg.	500%
Folate (500 mcg as Calcium Folinate an	d	
500 mcg as 5-Methyl-tetrahydrofolate) 1000 mcg.	250%
Vitamin B12 (225 mcg as Adenosylcoba	lamin	
and 225 mcg as Methylcobalamin)	450 mcg.	7500%
Biotin	400 mcg.	133%
Pantothenic Acid (as Calcium Pantothena	te) 413 mg.	4130%
Calcium (as Calcium Aspartate)	300 mg.	30%
Iron (as Iron Picolinate)	15 mg.	83%
lodine (as Potassium Iodide)	225 mcg.	150%
Magnesium (as Magnesium Aspartate)	285 mg.	71%
Zinc (as Zinc Picolinate)	15 mg.	100%
Selenium (as Selenium Picolinate)	200 mcg.	286%
Copper (as Copper Picolinate)	1.5 mg.	75%
Manganese (as Manganese Picolinate)	6 mg.	300%
Chromium (as UltraChrome®)	200 mcg.	167%
Molybdenum (as Molybdenum Picolinate	e) 100 mcg.	133%
Potassium (as Potassium Aspartate)	90 mg.	2.5%
Boron (as Boron Picolinate)	3 mg.	*
Choline Citrate	100 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules Code: VM3 Dosage: 1 to 2 capsules tid

product data sheet

Aspartate Formula **Basic Nutrients I** Without Copper & Iron

> 180 Vegetarian Capsules Code: VM1 Dosage: 3 capsules bid

> > product data sheet

Citrate Formula **Basic Nutrients III**

Code: VM6

product data sheet

Citrate Formula

multi-vitamin-mineral

Six Capsules Contain:		% DV
Vitamin A (as 2,500 IU Palmitate and		
12,500 IU Mixed Carotenes)	15,000 IU.	300%
Vitamin C (as Ascorbic Acid)	850 mg.	1417%
Vitamin D (as Vitamin D3)	1000 IU.	250%
Vitamin E (as d-Alpha-Tocopheryl)	400 IU.	1333%
Thiamine (as Thiamine HCI)	40 mg.	2667%
Riboflavin (from Riboflavin 5'- Phosphate	e) 11 mg.	647%
Niacin (from 30 mg Niacin and		
from 130 mg Niacinamide)	160 mg.	800%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	10 mg.	500%
Folate (500 mcg as Calcium Folinate and	d	
500 mcg as 5-Methyl-tetrahydrofolate)	1000 mcg.	250%
Vitamin B12 (225 mcg as Adenosylcobal	amin	
and 225 mcg as Methylcobalamin)	450 mcg.	7500%
Biotin	400 mcg.	133%
Pantothenic Acid (as Calcium Pantothena	te) 413 mg.	4130%
Calcium (as Calcium Citrate)	300 mg.	30%
Iron (as Iron Picolinate)	15 mg.	83%
lodine (as Potassium Iodide)	225 mcg.	150%
Magnesium (as Magnesium Citrate)	285 mg.	71%
Zinc (as Zinc Picolinate)	15 mg.	100%
Selenium (as Selenium Picolinate)	200 mcg.	286%
Copper (as Copper Picolinate)	1.5 mg.	75%
Manganese (as Manganese Picolinate)	6 mg.	300%
Chromium (as UltraChrome®)	200 mcg.	1679
Molybdenum (as Molybdenum Picolinate	e) 100 mcg.	1339
Potassium (as Potassium Citrate)	90 mg.	2.5%
Boron (as Boron Picolinate)	3 mg.	*
Choline Citrate	100 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

180 Vegetarian Capsules Code: VM7 Dosage: 1 to 2 capsules tid

product data sheet

BASIC NUTRIENTS IV multi-vitamin-mineral

multi-vitamin-mineral

Without Copper & Iron

180 Vegetarian Capsules Dosage: 3 capsules bid

[†]A hypoallergenic ingredient used to fill space.

who needs a full spectrum multi with extra antioxidants?

- → men and women with high-stress lifestyles
- → the elderly
- → athletes
- → people living in a polluted environment



Extra Nutrients™

for patients needing extra antioxidant support

A plethora of research indicates foods high in antioxidant nutrients are important components of a healthy diet. However, most Americans do not eat the recommended five servings of antioxidant-rich fruits and vegetables each day, and need extra supplementation to keep up with their antioxidant demands. In addition, an unhealthy lifestyle can make one prone to oxidative damage. Even those who strive to live a healthy life and engage in regular physical exercise need extra antioxidants to counter the oxidative stress of their increased metabolic activity.

Extra Nutrients was designed specifically for individuals with an increased oxidative burden who are looking for a daily multi-vitamin supplement with maximum antioxidant potential. It provides the optimal daily intake of a full complex of essential vitamins and minerals with the added benefit of additional antioxidants. Extra Nutrients is ideal for the patient who needs extra antioxidant support, such as athletes, the aging, and individuals living in a particularly toxic environment.

Extra Nutrients is a comprehensive multi-vitamin formula that provides added benefits of reduced glutathione, R-lipoic acid, coenzyme Q10, and hesperidin methyl chalcone. Features of Extra Nutrients include: (1) contains all hypoallergenic ingredients, (2) is free of pre-diluted ingredients and hidden preservatives, (3) does not contain magnesium stearate, stearic acid, or ascorbyl palmitate that may interfere with absorption, (4) provides the active forms of B vitamins – folate and vitamins B2, B6, and B12, and (5) contains advanced mineral forms for optimal absorption – citratemalates, picolinates, and our patented chromium (UltraChrome).

Now Extra Nutrients contains 1,000 IU of vitamin D3 in a full daily dose.

Extra Nutrients – the highest quality multi with extra antioxidants on the market.

other products to see: Anti-Oxidant, Planti-Oxidants, R-Lipoic Acid, Glutathione-SR

multi-vitamin-mineral antioxidants

Extra Nutrients

Civ Canaulas Cantains		% DV
Six Capsules Contain:		% DV
Vitamin A (as 2500 IU Palmitate and	45.000.00	0000
12,500 IU Mixed Carotenes)	15,000 IU.	300%
Vitamin C (as Ascorbic Acid)	850 mg.	1417%
Vitamin D (as Vitamin D3)	1000 IU.	250%
Vitamin E (as d-Alpha-Tocopheryl)	400 IU.	1333%
Thiamine (as Thiamine HCI)	40 mg.	2667%
Riboflavin (as Riboflavin 5'- Phosphate)	11 mg.	647%
Niacin (from 30 mg Niacin and		
from 130 mg Niacinamide)	160 mg.	800%
Vitamin B6 (as Pyridoxal 5'- Phosphate)		507.5%
Folate (500 mcg as Calcium Folinate and		
as 5-Methyl-tetrahydrofolate)	1000 mcg.	250%
Vitamin B12 (225 mcg as Adenosylcobal	amin and	
225 mcg as Methylcobalamin)	450 mcg.	7500%
Biotin	400 mcg.	133%
Pantothenic Acid (as Calcium Pantothenate	e) 413 mg.	4130%
Calcium (as Calcium Citrate-Malate)	300 mg.	30%
Iodine (as Potassium Iodide)	225 mcg.	150%
Magnesium (as Magnesium Citrate-Malate	e) 285 mg.	71%
Zinc (as Zinc Picolinate)	15 mg.	100%
Selenium (as Selenium Picolinate)	200 mcg.	286%
Copper (as Copper Picolinate)	1.5 mg.	75%
Manganese (as Manganese Picolinate)	6 mg.	300%
Chromium (as UltraChrome®)	200 mcg.	167%
Molybdenum (as Molybdenum Picolinate) 100 mcg.	133%
Potassium (as Potassium Citrate-Malate)	90 mg.	2.5%
Boron (as Boron Picolinate)	3 mg.	*
Choline Citrate	100 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*
Glutathione (as Reduced Glutathione)	50 mg.	*
Coenzyme Q10	50 mg.	*
Hesperidin Methyl Chalcone	100 mg.	*
R-Lipoic Acid	5 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules Code: VMX Dosage: 1 to 2 capsules tid

product data sheet

multi-vitamin-mineral men's health prostate support

Al's Formula

Eight Capsules Contain:		% DV
Vitamin A (as 2500 IU Palmitate and		
12,500 IU Mixed Carotenes)	15,000 IU.	3009
Vitamin C (as Ascorbic Acid)	850 mg.	14179
Vitamin D (as Vitamin D3)	1600 IU.	4009
Vitamin E (as d-Alpha-Tocopheryl)	400 IU.	13339
Vitamin K (as Vitamin K1)	100 mcg.	1259
Thiamine (as Thiamine HCI)	40 mg.	26679
Riboflavin (as Riboflavin 5'- Phosphate)	11 mg.	6479
Niacin (from 30 mg Niacin		
and from 130 mg Niacinamide)	160 mg.	8009
Vitamin B6 (as Pyridoxal 5'- Phosphate)	16.9 mg.	8459
Folate (500 mcg as Calcium Folinate and		
500 mcg as 5-Methyl-tetrahydrofolate)	1000 mcg.	2509
Vitamin B12 (225 mcg as Adenosylcobala		
225 mcg as Methylcobalamin)	450 mcg.	75009
Biotin	400 mcg.	1339
Pantothenic Acid (as Calcium Pantothenato	e) 413 mg.	41309
Calcium (as Calcium Citrate-Malate)	300 mg.	309
Magnesium (as Magnesium Citrate-Malate)	285 mg.	719
Zinc (as Zinc Picolinate)	30 mg.	2009
Selenium (as Selenium Picolinate)	200 mcg.	2869
Copper (as Copper Picolinate)	1.5 mg.	759
Manganese (as Manganese Picolinate)	6 mg.	3009
Chromium (as UltraChrome®)	200 mcg.	1679
Molybdenum (as Molybdenum Picolinate)	100 mcg.	1339
Potassium (as Potassium Citrate-Malate)	90 mg.	2.59
Boron (as Boron Picolinate)	3 mg.	*
Choline Citrate	100 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*
Saw Palmetto extract (fruit) (Serenoa rep	ens)	
(85% fatty acids and sterols)	160 mg.	*
English Hawthorne extract (top branch flo	wers)	
(Crataegus oxycantha)		
(1.8% vitexin-2-rhamnosides)	50 mg.	*
L-Alanine	100 mg.	*
Glycine	100 mg.	*
Glutamic Acid	100 mg.	*
Pure Betaine (Trimethylglycine)	300 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

240 Vegetarian Capsules Code: VMM Dosage: 2 to 4 capsules bid

product data sheet

- → a complete multiple designed for the mature man
- → added support for a healthy prostate
- → nutrients for cardiovascular support
- → pure, active ingredients for optimal absorption

Al's Formula™

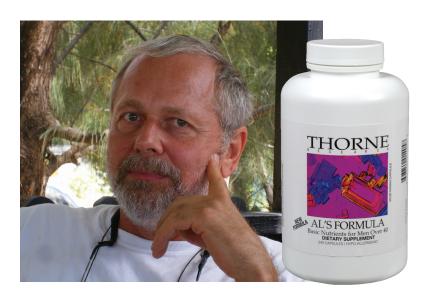
for men over 40

Al's Formula is a comprehensive multiple vitamin-mineral formula designed to support the metabolic functions of the mature male. Al's Formula contains saw palmetto extract, extra zinc, and the amino acids alanine, glycine, and glutamic acid for nutritional support of the prostate. Pure betaine and hawthorne extract are included to reduce risk factors associated with cardiovascular disease. Al's Formula does not contain iron, as it is generally not necessary and potentially harmful for some older men.

Like all Thorne multiple vitamin-mineral supplements, Al's Formula contains the active forms of vitamins B2 (riboflavin 5'-phosphate), B6 (pyridoxal 5'-phosphate), B12 (adenosylcobalamin and methylcobalamin), and folic acid (folinic acid and 5-MTHF).

Now Al's Formula contains 1,600 IU of vitamin D3 in a full daily dose.

other products to see: Perfusia-SR, Basic Pygeum Herbal, Serenoa Gelcaps



[†]A hypoallergenic ingredient used to fill space.

Nutri-Fem™

for women of childbearing age

Young women have their own unique nutritional needs. That's why we developed Nutri-Fem, a high-potency supplement for women of childbearing age. Nutri-Fem contains optimal amounts of the well-absorbed vitamins and minerals found in our popular Basic Nutrients products – trace minerals as picolinates and our highly bioavailable, patented chromium – UltraChrome. Providing iron bound to picolinate alleviates the risk of gastric upset or constipation associated with less-absorbable forms. Studies have shown calcium supplementation confers long-term benefit to younger women and Nutri-Fem includes the best-absorbed forms of calcium and magnesium – citrate-malate.

Additional nutrients and botanicals are included to specifically benefit active younger women. Because folate is so important in this age group, Nutri-Fem contains 1,000 mcg of active folates – 5-MTHF and folinic acid. Wild yam extract and gambir are added to optimize estrogen-progesterone balance and hormone metabolism. Now Nutri-Fem contains 1,600 IU of vitamin D3 and 500 mg of calcium in a full daily dose.

For women from menarche to menopause, the combination of nutrients in Nutri-Fem make it the clear choice.

other products to see: Basic Prenatal, Bio-PMT, Black Currant Oil



multi-vitamin-mineral women's health

Nutri-Fem[™]

Eight Capsules Contain:		% DV
Vitamin A (as 2,500 IU Palmitate and		
12,500 IU Mixed Carotenes)	15,000 IU.	3009
Vitamin C (as Ascorbic Acid)	850 mg.	14179
Vitamin D (as Vitamin D3)	1600 IU.	4009
Vitamin E (as d-Alpha-Tocopheryl)	400 IU.	13339
Vitamin K (as Vitamin K1)	100 mcg.	1259
Thiamine (as Thiamine HCI)	40 mg.	26679
Riboflavin (as Riboflavin 5'- Phosphate)	11 mg.	6479
Niacin (from 30 mg Niacin and from		
130 mg Niacinamide)	160 mg.	8008
Vitamin B6 (as Pyridoxal 5'- Phosphate)	23.7 mg.	11859
Folate (500 mcg as Calcium Folinate and	t	
500 mcg as 5-Methyl-tetrahydrofolate)		2509
Vitamin B12 (225 mcg as Adenosylcobal	amin and	
225 mcg as Methylcobalamin)	450 mcg.	75009
Biotin	400 mcg.	1339
Pantothenic Acid (as Calcium Pantothenat		41309
Calcium (as Calcium Citrate-Malate)	500 mg.	509
Iron (as Iron Picolinate)	15 mg.	839
lodine (as Potassium Iodide)	225 mcg.	1509
Magnesium (as Magnesium Citrate-Malat	e) 285 mg.	719
Zinc (as Zinc Picolinate)	15 mg.	1009
Selenium (as Selenium Picolinate)	200 mcg.	2869
Copper (as Copper Picolinate)	1.5 mg.	759
Manganese (as Manganese Picolinate)	6 mg.	3009
Chromium (as UltraChrome®)	200 mcg.	1679
Molybdenum (as Molybdenum Picolinate	, ,	1339
Potassium (as Potassium Citrate-Malate)	90 mg.	2.59
Boron (as Boron Picolinate)	3 mg.	*
Choline Citrate	100 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*
Malic Acid (from mineral citrate-malate)	1000 mg.	*
Wild Yam (root) (Dioscorea villosa)	50 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

240 Vegetarian Capsules Code: VMF Dosage: 2 to 4 capsules bid

product data sheet

The Thorne Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

contains a better absorbed calcium than typical oyster shell or carbonate forms

- → contains nutrients to support bone health including 1,600 IU pure vitamin D
- → support for menopausal symptoms
- → the purest, highest quality multi for mature women on the market

multi-vitamin-mineral women's health

Meta-Fem[™]

Cumulamant Fac	4-			
Supplement Facts Serving Size: Eight CapsulesServings Per Container: 30				
	ontainer. oo	% DV		
Eight Capsules Contain:		% DV		
Vitamin A (as 2,500 IU Palmitate and	45 000 111	0000/		
12,500 IU Mixed Carotenes)	15,000 IU.	300%		
Vitamin C (as Ascorbic Acid)	850 mg.	1417%		
Vitamin D (as Vitamin D3)	1600 IU.	400%		
Vitamin E (as d-Alpha-Tocopheryl)	400 IU.	1333%		
Vitamin K (as Vitamin K1)	100 mcg.	125%		
Thiamine (as Thiamine HCI)	40 mg.	2667%		
Riboflavin (as Riboflavin 5'- Phosphate)	11 mg.	647%		
Niacin (from 30 mg Niacin and from				
130 mg Niacinamide)	160 mg.	800%		
Vitamin B6 (as Pyridoxal 5'- Phosphate)	16.9 mg.	845%		
Folate (500 mcg as Calcium Folinate an				
500 mcg as 5-Methyl-tetrahydrofolate)	1000 mcg.	250%		
Vitamin B12 (225 mcg as Adenosylcoba	lamin			
and 225 mcg as Methylcobalamin)	450 mcg.	7500%		
Biotin	400 mcg.	133%		
Pantothenic Acid (as Calcium Pantothenat	te) 413 mg.	4130%		
Calcium (as Calcium Citrate-Malate)	600 mg.	60%		
lodine (as Potassium lodide)	225 mcg.	150%		
Magnesium (as Magnesium Citrate-Malat	e) 300 mg.	75%		
Zinc (as Zinc Picolinate)	15 mg.	100%		
Selenium (as Selenium Picolinate)	200 mcg.	286%		
Copper (as Copper Picolinate)	1.5 mg.	75%		
Manganese (as Manganese Picolinate)	6 mg.	300%		
Chromium (as UltraChrome®)	200 mcg.	167%		
Molybdenum (as Molybdenum Picolinate	e) 100 mcg.	133%		
Potassium (as Potassium Citrate-Malate) 90 mg.	2.5%		
Boron (as Boron Picolinate)	4 mg.	*		
Choline Citrate	100 mg.	*		
Vanadium (as Vanadium Picolinate)	100 mcg.	*		
Malic Acid (from mineral citrate-malate)		*		
Wild Yam (root) (Dioscorea villosa)	50 mg.	*		
Dong Quai extract (root) (Angelica sinens		*		
Hesperidin Methyl Chalcone	75 mg.	*		
*Daily Value (DV) not established.	0			
•				

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

240 Vegetarian Capsules Code: VMW Dosage: 2 to 4 capsules bid

product data sheet

Meta-Fem™

a complete supplement for women over 40

Women who are peri- or postmenopausal need vitamins and minerals for maintenance of bone density, as well as specific nutritional support for hormonal changes they experience. Meta-Fem is a complete nutritional supplement for women of either peri- or postmenopausal age. It contains more calcium than our other multis, as women need more absorbable calcium and nutrients that support good bone health. Meta-Fem features calcium citrate-malate (shown to be significantly better absorbed than calcium carbonate or oyster shell calcium). Meta-Fem contains no iron, as the need for iron usually lessens as a woman enters menopause. If a woman in the perimenopausal period is experiencing abnormally heavy menses, it is recommended she take Nutri-Fem or add a blood-building formula such as Ferrasorb.

In addition, specific nutrients and botanicals have been added with the special needs of this population of women in mind. Wild yam provides phytoprogesterone-like effects, while dong quai has been used in traditional Chinese medicine, along with other herbs, for the control of vasomotor symptoms of menopause. Hesperidin methyl chalcone is also included because of its potential to alleviate hot flashes. While these additions to Meta-Fem may prevent the occurrence of uncomfortable symptoms associated with menopause, it has been designed to be used in conjunction with Meta-Balance for additional menopause support.

Now Meta-Fem contains 1,600 IU of vitamin D3 in a full daily dose.

other products to see: Meta-Balance, Oscap Plus, HMC Hesperidin

Pregnancy is a critical time for optimizing health and nutrition, both for the mother and her baby. Overall nutritional and caloric needs are greatly increased by pregnancy and breastfeeding. However, especially during the first trimester, women are not always able to consume the desired number of calories or variety of nutrients because of nausea. Several nutrients in a good prenatal vitamin have been found to benefit those who suffer from "morning sickness." These include vitamins C, B6, and K.

Because deficiencies of folic acid have been linked to low-birth-weight infants and neural tube defects, folic acid requirements double during pregnancy. The Centers for Disease Control and Prevention recommend folic acid supplementation for all women of childbearing age because the biggest need is during the first trimester, when a woman may not even be aware she is pregnant. The need for other nutrients, such as iron, increases dramatically during pregnancy and is not always compensated for by diet alone.

Preeclampsia (a condition involving high blood pressure, fluid retention, and protein in the urine) is a risk during the last trimester of pregnancy. Maintaining adequate calcium, magnesium, and antioxidant levels may help prevent this condition.

Multiple vitamin supplementation – during the year before becoming pregnant, during pregnancy, and while breastfeeding – will help produce a healthy baby and benefit the mother through labor, delivery, breastfeeding, and postpartum.



Basic Prenatal



- → easily tolerated
- → no hidden ingredients
- → folate from the active forms: 5-methyl-tetrahydrofolate and folinic acid
- → 1.000 IU vitamin D
- → the purest, highest quality prenatal on the market

multi-vitamin-mineral women's health

Basic Prenatal

Supplement Facts

Three Capsules Contain:		% DV
Vitamin A (as 2,000 IU Palmitate and		
3,000 IU Mixed Carotenes)	5000 IU.	100%
Vitamin C (as Ascorbic Acid)	150 mg.	250%
Vitamin D (as Vitamin D3)	1000 IU.	250%
Vitamin E (as d-Alpha-Tocopheryl)	50 IU.	167%
Vitamin K (as Vitamin K1)	100 mcg.	*
Thiamine (as Thiamine HCI)	4 mg.	264%
Riboflavin (as Riboflavin 5'- Phosphate)	3.6 mg.	212%
Niacin (as Niacinamide)	30 mg.	150%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	10 mg.	500%
Folate (500 mcg as Calcium Folinate and	t	
500 mcg as 5-Methyl-tetrahydrofolate) 1000 mcg.	250%
Vitamin B12 (100 mcg as Adenosylcobal	amin	
and 100 mcg as Methylcobalamin)	200 mcg.	3334%
Biotin	50 mcg.	17%
Pantothenic Acid (as Calcium Pantothena	ate) 16 mg.	160%
Calcium (as Calcium Citrate-Malate)	200 mg.	20%
Iron (as Iron Picolinate)	45 mg.	250%
lodine (as Potassium Iodide)	150 mcg.	100%
Magnesium (as Magnesium Citrate-Malat		25%
Zinc (as Zinc Picolinate)	25 mg.	167%
Selenium (as Selenium Picolinate)	50 mcg.	*
Copper (as Copper Picolinate)	2 mg.	100%
Manganese (as Manganese Picolinate)	5 mg.	*
Chromium (as Chromium Picolinate)	100 mcg.	*
Molybdenum (as Molybdenum Picolinate) 50 mcg.	*
Boron (as Boron Picolinate)	1 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: VMP Dosage: 1 capsule tid

product data sheet

Basic Prenatal

a complete supplement for pregnant and lactating women

Basic Prenatal is a comprehensive supplement formulated with the special needs of pregnancy in mind. Manufactured with none of the additives and coatings usually found in mainstream prenatal tablets, Basic Prenatal includes only the most bioavailable nutrients. High-potency multiple vitamins may sometimes be difficult for a woman to "stomach," particularly during the first trimester of pregnancy. Therefore, Thorne does not include large amounts of the nutrients commonly known to cause stomach upset. Instead, we include these nutrients in their most active or absorbable forms for superior utilization. Among these are the active forms of several of the B vitamins – pyridoxal 5'-phosphate (B6), riboflavin 5'-phosphate (B2), folinic acid and 5-MTHF (active forms of folate), and adenosyl- and methylcobalamin (B12). Calcium in large doses may also cause stomach upset. Therefore, a moderate dose in the highly absorbable citrate-malate form is used. Practitioners may want to supplement additional calcium and magnesium, particularly in the final trimester. And now basic Prenatal contains 1,000 IU of vitamin D in a full daily dose.

Choose Basic Prenatal - the purest, highest quality prenatal on the market.

Basic Prenatal may also be taken by nursing mothers.

other products to see: Folacal, 5-MTHF, Diosmin-HMC, DHA

Why do we manufacture nutritional supplements in capsules, not tablets?

Making tablets requires that other ingredients be added, in addition to just the nutrients. Binders, lubricants, coatings, disintegrants, and other excipients are the ingredients most commonly added by tablet manufacturers. These ingredients must be added to make the tablet stay together, to make it shiny, and to make it break apart. Tablets are made in machines called tablet presses, which compact the powdered nutrients together (that have already been mixed with binders and lubricants) with a tremendous amount of force. Then, to make them shiny and easier to swallow, the tablets are often sprayed with shellac, like the shellac found on furniture, but it's labeled "pharmaceutical glaze," or coated with a "vegetable protein," most often a protein derived from corn.



Children's Basic Nutrients

in small capsules, providing easy dosing for children of all ages

Unlike many multiple vitamin-mineral supplements for children, Children's Basic Nutrients contains no sugars, binders, or allergenic excipients. Only the finest, most bioavailable nutrients are used, and the easy-to-swallow, kid-size capsule makes dosing easy, even in young children. The two-part vegetarian capsule may also be taken apart and mixed into food (like apple sauce or yogurt) or liquid.

For finicky eaters who need more protein, try Medipro. Experienced parents have suggested that mixing the powders into yogurt and partially freezing it becomes a treat. A frozen fruit shake mixed in the blender is another way to go.

other products to see: Medipro

product data sheet

multi-vitamin-mineral

Children's Basic Nutrients

Six Capsules Contain:		% DV
Vitamin A (as 750 IU Palmitate and		
3,750 IU Mixed Carotenes)	4500 IU.	90%
Vitamin C (as Ascorbic Acid)	250 mg.	4179
Vitamin D (as Vitamin D3)	400 IU.	1009
Vitamin E (as d-Alpha-Tocopheryl)	120 IU.	400%
Vitamin K (as Vitamin K1)	30 mcg.	37.5%
Thiamine (from 15 mg Thiamine HCI)	12 mg.	8009
Riboflavin (as Riboflavin 5'- Phosphate)	3.3 mg.	1949
Vitamin B3 (from 9 mg Niacin and		
from 40 mg Niacinamide)	49 mg.	245%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	3 mg.	150%
Folate (200 mcg as Calcium Folinate and	200 mcg	
as 5-Methyl-tetrahydrofolate)	400 mcg.	1009
Vitamin B12 (from 67.5 mcg Adenosylcob	oalamin and	i
from 67.5 mcg Methylcobalamin)	135 mcg.	2250%
Biotin	120 mcg.	40%
Pantothenic Acid (as Calcium Pantothenate) 124 mg.	12409
Calcium (as Calcium Citrate-Malate)	90 mg.	99
Iron (as Iron Picolinate)	4.5 mg.	25%
lodine (from Potassium Iodide)	67.5 mg.	45%
Magnesium (as Magnesium Citrate-Malate	e) 85 mg.	219
Zinc (as Zinc Picolinate)	4.5 mg.	309
Selenium (as Selenium Picolinate)	60 mcg.	869
Copper (as Copper Picolinate)	0.45 mg.	22.5%
Manganese (as Manganese Picolinate)	1.8 mg.	90%
Chromium (as UltraChrome®)	60 mcg.	50%
Molybdenum (as Molybdenum Picolinate)	30 mcg.	40%
Potassium (as Potassium Citrate-Malate)	27 mg.	<19
Boron (as Boron Picolinate)	0.9 mg.	*
Choline Citrate	30 mg.	*
Vanadium (as Vanadium Picolinate)	30 mcg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules Code: VMC Dosage: 1 to 2 capsules tid

The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

multi-vitamin-mineral metabolic support protein supplement meal replacement

Medipro®

Two (15 g) Scoops Contain:		% DV
Calories	108.5	
Calories from Fat	18	
Total Fat	2 g.	3%*
Saturated Fat	1 g.	5%*
Trans Fat	0 g.	0%*
Cholesterol	33 mg.	11%*
Total Carbohydrate	2 g.	<1%*
Dietary Fiber	0 g.	
Sugars (as lactose)	2 g.	
Protein	21 g.	
Vitamin A (as Beta Carotene)	4000 IU.	80%
Vitamin C (as Ascorbic Acid)	75 mg.	125%
Vitamin D (as Vitamin D3)	80 IU.	20%
Vitamin E (as d-Alpha-Tocopheryl)	50 IU.	167%
Thiamine (as Thiamine HCI)	4 mg.	267%
Riboflavin (as Riboflavin 5'- Phosphate)	1.5 mg.	88%
Niacin (from 5 mg Niacin and from		
10 mg Niacinamide)	15 mg.	75%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	3.4 mg.	170%
Folate (75 mcg as Calcium Folinate and		
75 mcg as 5-Methyl-tetrahydrofolate)	150 mcg.	38%
Vitamin B12 (as Methylcobalamin)	50 mcg.	834%
Biotin	150 mcg.	50%
Pantothenic Acid (as Calcium Pantothenate	e) 18 mg.	180%
Calcium (as Calcium Citrate-Malate)	150 mg.	15%
Iron (as Iron Picolinate)	5 mg.	28%
lodine (as Potassium Iodide)	50 mcg.	34%
Magnesium (as Magnesium Citrate-Malate)	100 mg.	25%
Zinc (as Zinc Picolinate)	5 mg.	34%
Selenium (as Selenium Picolinate)	50 mcg.	71%
Copper (as Copper Picolinate)	1 mg.	50%
Manganese (as Manganese Picolinate)	5 mg.	250%
Chromium (as UltraChrome®)	50 mcg.	42%
Molybdenum (as Molybdenum Picolinate)	25 mcg.	24%
Potassium (as Potassium Citrate-Malate)	99 mg.	<3%
Sodium (from Lactalbumin Powder)	25 mg.	1%
Boron (as Boron Picolinate)	50 mcg.	**
Choline Citrate	20 mg.	**
Vanadium (as Vanadium Picolinate)	25 mcg.	**

Other Ingredients: Hydrolyzed lactalbumin protein and natural vanilla flavoring.

Contains ingredient derived from milk.

Net Wt 18 oz (510 g)

Code: SP620 Dosage: 2 scoops in 8 ounces of water qd to bid

whey protein article (9-2) product data sheet

Medipro[®]

for individuals needing additional protein and nutrients

For people who need a supplement with protein and extra nutrients, such as individuals on weight loss programs, athletes, children, and the elderly, Medipro is an excellent choice. Medipro provides all the essential vitamins and minerals, as well as 21 grams of protein per serving from easily assimilated and low allergenicity hydrolyzed whey protein, instead of the more allergenic casein, soy, or egg protein.

- → Medipro is a great high-protein, low carbohydrate meal replacement for weight loss
- → Medipro provides an excellent alternative to Children's Basic Nutrients for those kids who won't swallow capsules or for the picky eater who needs more protein
- → Medipro can be used for patients recovering from oral surgery or any other medical problem that makes chewing difficult
- → Medipro is also helpful for elderly people who need protein and nutrients but have trouble swallowing capsules



- → a unique multiple product designed for a toxic world
- → use as part of a complete cleansing program
- → use as a stand alone product for prevention

Basic Detox Nutrients™

a comprehensive multiple vitamin-mineral with additional nutrients to aid in detoxification

Basic Detox Nutrients was designed for all individuals with environmental toxicity. It can be used within a cleansing program or as a stand-alone product for preventive use. Basic Detox Nutrients is a complete multi vitamin mineral formulation with higher levels of nutrients commonly found deficient in those with chemical overload, as well as nutrients and botanicals that help the body handle the toxic load, including:

B vitamins: Thiamine (vitamin B1) is essential to restore oxidized glutathione and lipoic acid and is depleted by chlorinated pesticides and formaldehyde, two ubiquitous toxins. Riboflavin 5'-phosphate (active form of vitamin B2) helps block free-radical damage by recycling glutathione. Pyridoxal 5'-phosphate (active form of vitamin B6) is depleted by many toxic substances, and a B6 deficiency makes it difficult for the liver to detoxify.

Other important detox nutrients: Magnesium citrate-malate is a well-absorbed form of magnesium, one of the most commonly deficient nutrients in the chemically toxic individual. Choline is needed for the production of hepatic cytochrome P450 detoxification enzymes, N-acetylcysteine increases glutathione levels in the body, MSM provides sulfur for detoxification reactions, and R-lipoic acid is a powerful antioxidant that increases glutathione levels.

Botanical extracts: Green tea extract is an herbal antioxidant shown to prevent the occurrence of cancer, particularly skin cancers. Milk thistle has proven its ability to increase liver glutathione levels and prevent liver cell damage from toxins. Curcumin extract (from turmeric) is hepatoprotective and has been shown to suppress the mutagenicity of several common chemical carcinogens. Both broccoli extract and dandelion root also enhance liver detoxification.

Now Basic Detox Nutrients contains 1,600 IU of vitamin D3 in a full daily dose.

multi-vitamin-mineral detoxification

Basic Detox Nutrients

Twelve Capsules Contain:		% DV
Vitamin A (from 25,000 IU Mixed Caroter	nes	
and 2,500 IU Palmitate)	27,500 IU.	5509
Vitamin D (as Vitamin D3)	1600 IU.	4009
Vitamin E (as d-Alpha-Tocopheryl)	400 IU.	13339
Vitamin K	100 mcg.	1259
Vitamin C (as Calcium Ascorbate)	1000 mg.	16679
Thiamine (as Thiamine HCI)	200 mg.	133339
Riboflavin (as Riboflavin 5'- Phosphate)	50 mg.	29419
Niacin (from 30 mg Niacin and		
from 100 mg Niacinamide)	130 mg.	6509
Vitamin B6 (as Pyridoxal 5'- Phosphate)	100 mg.	50009
Folate (500 mcg as Calcium Folinate and	d 500 mcg	
as 5-Methyl-tetrahydrofolate)	1000 mcg.	2509
Vitamin B12 (225 mcg as Adenosylcobal	amin and	
225 mcg as Methylcobalamin)	450 mcg.	75009
Biotin	400 mcg.	1339
Pantothenic Acid (as Calcium Pantothenat	e) 400 mg.	40009
Calcium (as Calcium Citrate-Malate)	300 mg.	309
lodine (as Potassium Iodide)	150 mcg.	1009
Magnesium (as Magnesium Citrate-Malat	e) 500 mg.	1259
Zinc (as Zinc Picolinate)	30 mg.	2009
Selenium (as Selenium Picolinate)	200 mcg.	2869
Manganese (as Manganese Picolinate)	6 mg.	3009
Chromium (as UltraChrome®)	200 mcg.	1679
Molybdenum (as Molybdenum Picolinate)) 100 mcg.	1339
Potassium (as Potassium Citrate-Malate)	90 mg.	2.5%
Boron (as Boron Picolinate)	3 mg.	*
Choline Citrate	300 mg.	*
Inositol	60 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*
Green Tea Phytosome (Camellia sinensis	extract	
/ Phosphatidylcholine complex)	50 mg.	*
R-Lipoic Acid	50 mg.	*
N-Acetyl-L-Cysteine	200 mg.	*
MSM (Methyl Sulfonyl Methane)	100 mg.	*
Silybin Phytosome (seed) (Silymarin mar.	ianum -	
extract /Phosphatidylcholine complex		*
Broccoli extract	50 mg.	*
Dandelion (root) (Taraxacum officinale)	10 mg.	*
Curcumin Phytosome (root) (Curcuma loi		
/ Phosphatidylcholine complex)	100 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†
Contains ingredients derived from soy (phytosomes).

[†]A hypoallergenic ingredient used to fill space.

*Daily Value (DV) not established

360 Vegetarian Capsules Code: VMD Dosage: 3 to 4 capsules tid

> detox booklet product data sheet

The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

A proper functioning immune system is crucial to good health. Like other bodily processes, balance is the key. An inadequate immune response can lead to infections and eventually even to cancer, whereas an exaggerated immune response can result in inflammation, allergies, and autoimmune conditions. Interest has recently surged in the immune-enhancing effects of nutrients and botanicals. Research has found many natural substances enhance the activity of phagocytes, T-lymphocytes, natural killer (NK) cells, and B-cells, while other natural substances have direct antimicrobial effects.



multi-vitamin-mineral immune support

Basic Immune Nutrients[™]

_		
Supplement Fac Serving Size: Twelve CapsulesServings Per Coi		
Twelve Capsules Contain:		% DV
Vitamin A (from 50,000 IU Mixed Carote	nes	
and 7,500 IU Palmitate)	57,500 IU.	11,500%
Vitamin D (as Vitamin D3)	1000 IU.	250%
Vitamin E (as d-Alpha-Tocopheryl)	800 IU.	2666%
Thiamine (as Thiamine HCl)	40 mg.	2667%
Riboflavin (as Riboflavin 5'- Phosphate)	11 mg.	647%
Niacin (from 30 mg Niacin and		
from 130 mg Niacinamide)	160 mg.	800%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	34 mg.	1700%
Folate (500 mcg as Calcium Folinate an	d 500 mcg	
as 5-Methyl-tetrahydrofolate)	1000 mcg.	250%
Vitamin B12 (225 mcg as Adenosylcobal	lamin and	
225 mcg as Methylcobalamin)	450 mcg.	7500%
Biotin	400 mcg.	133%
Pantothenic Acid (as Calcium Pantothena	te) 413 mg.	4130%
Calcium (as Calcium Citrate-Malate)	300 mg.	30%
lodine (from Potassium Iodide)	225 mcg.	150%
Magnesium (as Magnesium Citrate-Mala	te) 285 mg.	71%
Zinc (as Zinc Picolinate)	15 mg.	100%
Selenium (as Selenium Picolinate)	400 mcg.	571%
Copper (as Copper Picolinate)	1.5 mg.	75%
Manganese (as Manganese Picolinate)	15 mg.	750%
Chromium (as UltraChrome®)	200 mcg.	167%
Molybdenum (as Molybdenum Picolinate		133%
Potassium (as Potassium Citrate-Malate) 90 mg.	2.5%
Boron (as Boron Picolinate)	3 mg.	*
Choline Citrate	100 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*
Coenzyme Q10	200 mg.	*
R-Lipoic Acid	225 mg.	*
N-Acetyl-L-Cysteine	2000 mg.	*
Lipase (vegetarian)	30,000 IU.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

360 Vegetarian Capsules Code: VMH Dosage: 3 to 4 capsules tid

product data sheet

Basic Immune Nutrients™ for immuno-compromised patients

Nutritional deficiencies are common in individuals with compromised immune function. Since most vitamins and minerals are involved in enhancing immunity, a comprehensive, high-potency, multiple vitamin-mineral formula is essential.

Basic Immune Nutrients combines the most well-absorbed vitamins and minerals in our Basic Nutrients multiples with nutrients known to enhance immune system function. Designed by Dr. Lyn Patrick for immuno-compromised patients, this comprehensive multiple vitamin-mineral formula includes extra selenium and vitamins A, E, and B6, as well as therapeutic doses of the antioxidant nutrients R-lipoic acid, coenzyme Q10, and N-acetylcysteine. Lipase is included to enhance absorption of fat-soluble vitamins, typically faulty in these individuals.

Now Basic Immune Nutrients contains 1,000 IU of vitamin D in a full daily dose.

For more in-depth information on nutrients for the support of immunocompromised individuals, see the series of articles on immune function published in *Alternative Medicine Review*.

HIV article part I 4(6), HIV article part II 5(1), HIV article part III 5(4).

 $^{^{\}dagger}\text{A}$ hypoallergenic ingredient used to fill space.

MediClear® and MediClear Plus™

rice protein and accessory nutrients support hepatic detoxification

Our external environment has become increasingly more polluted in the last 50 years, causing a greater cumulative toxic burden in humans than ever before. Unavoidable exposure to tens of thousands of toxic chemicals in the environment has delivered up the daunting task of detoxifying and eliminating these substances from our bodies. Add to this the myriad endogenous substances (hormones, biochemical metabolites) the body must detoxify on a daily basis, and you see the serious challenge to our organs of elimination. In addition to this ever-increasing toxic load, the over-consumption of fats and sugars – and our reliance on nutrient-depleted vegetables, grains, fruits, and antibiotic- and hormone-laden meats – adds to the toxic load while providing inadequate nutrients for many metabolic processes, especially detoxification.

The liver carries the greatest share of the detoxification burden, as it is the liver's job to change potentially harmful substances into non-toxic, water-soluble compounds that can be eliminated by the kidneys or intestines. The liver and other tissues participating in the detoxification process must have available the proper nutrient co-factors to efficiently accomplish this task. In addition, specific botanicals are useful in assisting hepatic detoxification.

phase I and phase II hepatic detoxification

In Phase I of hepatic detoxification, polar, fat-soluble substances are converted to intermediate metabolites mainly by the cytochrome P450 family of enzymes. The intermediate metabolite is often more reactive and potentially more toxic than the original molecule. Phase II detoxification involves the attachment, or conjugation, of other molecules onto the intermediate metabolite to make it non-toxic, water-soluble, and allow its elimination via the urine or bile.

liver support for detoxification

Providing essential nutrient co-factors, while supplying an adequate amount of low-allergenicity protein, can be very beneficial to liver function. Health-care practitioners know many problems can arise if a patient's liver is not functioning as it should, including poor digestion, allergies, inflammation, hyperlipidemia, intestinal dysbiosis, chronic fatigue, even cancer. MediClear and MediClear Plus include beneficial detoxification nutrient co-factors, as well as an array of extra nutrients and botanicals in powder form that can be added to water, or fruit or vegetable juices, resulting in a pleasant tasting beverage.

MediClear and MediClear Plus supports Phase I and Phase II detoxification

The MediClear System promotes compliance and clinical efficacy

The MediClear System is designed to be flexible

The MediClear System is designed for patient compliance

The MediClear System includes a step-by-step guide for your patient that is easily modifiable for each patient's special needs



see MediClear Patient Guide

meal replacement
multi-vitamin-mineral
detoxification
allergy support
metabolic support
protein supplement

MediClear and MediClear Plus may also be used as a meal replacement in conjunction with a complete weight reduction program aimed at lower calorie intake providing adequate protein and nutrient



MediClear patient guide MediClear Plus sales sheet MediClear product data sheet MediClear Plus product data sheet

MediClear®

	-	
Supplement Fac Serving Size: Two Scoops (49 g)Servings Per	ts Container: 2	0
Two (49 g) Scoops Contain:		% DV
Calories	190	
Calories from Fat	25	
Total Fat	3.5 g.	5%*
Saturated Fat	1.5 g.	8%*
Cholesterol	0 mg.	0%*
Total Carbohydrate	12 g.	4%*
Sugars	4 g.	**
Dietary Fiber	4 g.	16%
Protein	29 g.	
Vitamin A (from 3000 IU Mixed Carotenes		
and 2000 IU Palmitate)	5000 IU.	100%
Vitamin C (as Ascorbic Acid)	300 mg.	500%
Vitamin D (as Vitamin D3)	400 IU.	100%
Vitamin E (as d-Alpha-Tocopherol from 10		
Pure Mixed Tocopherols)	50 IU.	166%
Thiamine (as Thiamine HCI)	12 mg.	800%
Riboflavin (as Riboflavin 5'- Phosphate)	5 mg.	294%
Niacin (from 8 mg Niacin and	06.	
30 mg Niacinamide)	38 mg.	125%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	10 mg.	500%
Folate (from 150 mcg Calcium Folinate a		
150 mcg 5-Methyl-tetrahydrofolate)	300 mcg.	75%
Vitamin B12 (from 25 mcg Cobamamide	000 11106.	1070
and 25 mcg Methylcobalamin)	50 mcg.	833%
Biotin	150 mcg.	50%
Pantothenic Acid (as Calcium Pantothenat		500%
Calcium (as Calcium Citrate-Malate)	300 mg.	30%
Magnesium (as Magnesium Citrate-Malat		37.5%
Zinc (as Zinc Picolinate)	10 mg.	66.6%
Selenium (as Selenium Picolinate)	70 mcg.	100%
Manganese (as Manganese Picolinate)	1.5 mg.	75%
Chromium (as UltraChrome®)	100 mcg.	83.3%
Molybdenum (as Molybdenum Picolinate)		66.6%
Potassium (as Potassium Citrate-Malate)	300 mg.	8.5%
Phosphorus	220 mg.	22%
Choline Citrate		**
Boron (as Boron Picolinate)	30 mg. 100 mcg.	**
Vanadium (as Vanadium Picolinate)		**
Lactobacillus sporogenes	50 mcg.	**
Ouercetin chalcone	50 mg. 250 mg.	**
Ç	0.5	**
Green Tea Extract (Catechin source)	25 mg.	**
MSM (Methyl Sulfonyl Methane)	100 mg. 50 mg.	**
Betaine (Trimethylglycine)		**
Medium Chain Triglycerides (MCT's) ADDED AMINO ACIDS	1.5 g.	
	E00 mg	**
L-Glutamine Chaine	500 mg.	**
Glycine	1.65 g.	**
Taurine	110 mg.	**
Lysine	500 mg.	**
Glutathione	25 mg.	**
N-Acetylcysteine	50 mg.	
* Percentage Daily Value based on a 2,000 calorie diet. **Daily Value (DV) not established.		

Other Ingredients: Rice protein, pure cane molasses, rice bran, natural vanilla, SlimSweet® (Lo Han fruit extract), orange flavoring, silicon dioxide.

Net Wt 34.6 oz (980 g) Code: SP640 Dosage: 1 to 2 scoops in 8 ounces of water bid - tid

Slimsweet® is a registered trademark of TriMedica International Inc.

MediClear Plus®

Two (46 g) Scoops Contain:		% DV
Calories	180	
Calories from Fat	25	
Total Fat	3 g.	5%
Saturated Fat	1.5 g.	8%
Cholesterol	0 mg.	0%
Total Carbohydrate	10 g.	3%
Sugars	1 g.	*:
Dietary Fiber	4 g.	16%
Protein	29 g.	
Vitamin A (from 3000 IU Mixed Carotenes	S	
and 2000 IU Palmitate)	5000 IU.	1009
Vitamin C (as Ascorbic Acid)	300 mg.	5009
Vitamin D (as Vitamin D3)	400 IU.	1009
Vitamin E (as d-Alpha-Tocopherol from 10	00 mg	
Pure Mixed Tocopherols)	50 IU.	1669
Thiamine (as Thiamine HCI)	12 mg.	8009
Riboflavin (as Riboflavin 5'- Phosphate)	5 mg.	2949
Niacin (from 8 mg Niacin and		
30 mg Niacinamide)	38 mg.	1259
Vitamin B6 (as Pyridoxal 5'- Phosphate)	10 mg.	5009
Folate (from 150 mcg Calcium Folinate a	nd	
150 mcg 5-Methyl-tetrahydrofolate)	300 mcg.	759
Vitamin B12 (from 25 mcg Cobamamide		
and 25 mcg Methylcobalamin)	50 mcg.	8339
Biotin	150 mcg.	509
Pantothenic Acid (as Calcium Pantothena	, ,	5009
Calcium (as Calcium Citrate-Malate)	300 mg.	309
Magnesium (as Magnesium Citrate-Malat		37.59
Zinc (as Zinc Picolinate)	10 mg.	66.69
Selenium (as Selenium Picolinate)	70 mcg.	1009
Manganese (as Manganese Picolinate) Chromium (as UltraChrome®)	1.5 mg.	759 83.39
Molybdenum (as Molybdenum Picolinate	100 mcg.) 50 mcg.	66.69
Potassium (as Potassium Citrate-Malate)	300 mg.	8.5%
Phosphorus	220 mg.	229
Choline Citrate		**
Boron (as Boron Picolinate)	30 mg.	**
Vanadium (as Vanadium Picolinate)	100 mcg.	**
Curcumin Phytosome (root) (Curcuma Ior	50 mcg.	
/ Phosphatidylcholine complex)	400 mg.	**
Grape Seed Phytosome (Vitis vinifera exti		
/ Phosphatidylcholine complex)	50 mg.	**
Green Tea Phytosome (leaf) (Camellia sin		
/ Phosphatidylcholine complex)	50 mg.	**
Lactobacillus sporogenes	50 mg.	**
Quercetin chalcone	250 mg.	**
MSM (Methyl Sulfonyl Methane)	100 mg.	**
Betaine (Trimethylglycine)	50 mg.	**
Medium Chain Triglycerides (MCT's)	1.5 g.	**
ADDED AMINO ACIDS		
L-Glutamine	500 mg.	**
Glycine	1.65 g.	**
Taurine	110 mg.	**
Lysine	500 mg.	**
Glutathione	25 mg.	**
		**

Other Ingredients: Rice protein, rice bran, silicon dioxide. Contains ingredients derived from soy (phytosomes).

Net Wt 32.45 oz (920 g) Code: SP640 Dosage: 1 to 2 scoops in 8 ounces of water bid - tid

The MediClear Program

The MediClear program is an easy-to-implement, affordable 3-week protocol that emphasizes healthful, hypo-allergenic dietary changes coupled with supplementation including MediClear. This approach delivers a nutrient-dense diet with extra cofactors that are necessary for optimal liver detoxification. The MediClear program is designed to be implemented incrementally, to gradually move your patients into and out of the program. During Week 1, the patient is eased into the protocol while consuming a diet that is less antigenic and less dependent on animal-based protein. During Week 2, the MediClear dose is increased. All animal-based protein is excluded to allow more cleansing to take place. The Week 3 diet is the same as Week 1, allowing the patient to re-introduce animal proteins (if desired) and reduce the reliance on MediClear. Unlike other programs, this protocol is not meant to be rigid; instead, it has been designed to be flexible, according to patient and practitioner needs. The program can be shortened or extended as needed, the MediClear dosage can be changed, and other supplementation can be added to the protocol.

Extra Nutrients and Botanicals

Catechins (from green tea extract) are included to promote proper hepatic Phase I detoxification and as a potent antioxidant. Glutathione and N-acetylcysteine are added for their antioxidant activity and to support hepatic Phase II detoxification. The amino acids glycine and taurine, and the amino acid derivative trimethylglycine, are also included for their supportive role in Phase II detoxification, along with the sulfur-containing compound MSM. L-glutamine supports proper intestinal health. Quercetin chalcone is included for its antioxidant activity and mast cell-stabilizing action. Our stable probiotic, *Lactobacillus sporogenes*, helps balance the normal intestinal flora. See label copy for a complete listing of ingredients.

The Difference

MediClear is different than most similar beverage mixes. MediClear contains more protein, fewer carbohydrates, more accessory detox cofactors, special nutrients and a probiotic for gut health, and is more affordable than other detox formulas.

Why Rice Protein?

Rice protein is used in MediClear and MediClear Plus because of its low incidence of allergenicity or intolerance. Rarely is an individual allergic to rice protein; it is far more common for dairy or soy to initiate an allergic reaction. Utilizing rice protein allows the patient to eliminate allergenic proteins from the diet, yet maintain high-quality protein intake.

NEW MediClear Plus

MediClear Plus provides all the nutritional benefits of MediClear, PLUS Meriva (curcumin phytosome), Grape Seed Phytosome, and Green Tea Phytsome — all for enhanced abosorption.

MediClear and MediClear Plus is a rice-based nutritional supplement designed to be used:

- \rightarrow in elimination diet protocols
- as an adjunct in hepatic and bowel detoxification
- → for systemic inflammatory control
- \rightarrow for allergy relief
- in protocols for increased gut permeability, inflammation, or dysbiosis

The outcomes of the "War on Cancer," first declared by Nixon over three decades ago, are in many ways disappointing.

Death rates continue to be high and conventional treatments continue to be expensive and often toxic. However, much new understanding of cancer physiology has occurred over this period. Thousands of research articles have appeared in the mainstream cancer literature describing the use of nutrients and botanicals in the prevention and treatment of cancer.

In 2001, Thorne Research pioneered the manufacturing of products made especially for physicians assisting patients dealing with cancer. Based on published research, the product formulations were designed for three contingencies – protection for patients at higher risk of cancer, prevention of recurrence of cancer, and support for patients currently undergoing conventional treatment for cancer.

The cornerstone of Thorne's oncology support program includes two products, Supportive Care (page 178) and Supportive Care II.

multi-vitamin-mineral oncology support

Supportive Care II™

Ten Capsules Contain:		% DV
Vitamin A (from 10,000 IU Palmitate and	t	
40,000 IU Mixed Carotenes)	50,000 IU.	1000%
Vitamin D	2000 IU.	500%
Vitamin E (d-Alpha Tocopheryl)	1200 IU.	4000%
Thiamine	40 mg.	26669
Riboflavin (as Riboflavin 5' - Phosphate)	10 mg.	5889
Niacinamide	100 mg.	500%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	50 mg.	2500%
Folate (500 mcg as Calcium Folinate and		
500 mcg as 5-Methyl-tetrahydrofolate)	1000 mcg.	250%
Vitamin B12 (as Methylcobalamin)	1000 mcg.	16,6669
Biotin	1000 mcg.	3339
Pantothenic acid	400 mg.	4000%
Calcium (as Calcium Citrate-Malate)	300 mg.	30%
Magnesium (as Magnesium Citrate-Mala	te) 500 mg.	125%
Zinc (as Zinc Picolinate)	15 mg.	1009
Selenium (from yeast)	200 mcg.	285%
Chromium (as UltraChrome®)	200 mcg.	1669
Molybdenum (as Molybdenum Picolinate	e) 100 mcg.	1339

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

300 Vegetarian Capsules Code: SFSD Dosage: 5 capsules bid

cancer booklet cancer article part I (6-1) cancer article part II (6-2) product data sheet

Supportive Care II™

a daily multi vitamin-mineral supplement for oncology patients

Supportive Care II is a multiple vitamin-mineral combination formulated specifically for the cancer patient, and contains nutrients in doses supported by the scientific literature. This supplement avoids the use of nutrients research has suggested might increase the growth of malignancies. For instance, Supportive Care II does not contain copper (angiogenic), iron (angiogenic), boron (steroidogenic), and manganese (difficult clearance in those with a compromised liver) as these minerals may be detrimental to oncology patients. Conversely, Supportive Care II contains higher amounts of certain nutrients that have been found to be of benefit to this patient population. For example, vitamin D has shown antimetastatic and antiproliferative effects, and vitamin A is important for normal cell differentiation. Supportive Care II eliminates the need for a separate multiple-vitamin supplement.

other products to see: Supportive Care

[†]A hypoallergenic ingredient used to fill space.



active B-vitamins 5-MTHF and folinic acid

methylcobalamin &

Active B-vitamins are extremely important to everyone, especially individuals who may not be able to convert non-active vitamins to their active forms in the liver because of compromised liver function, poorly functioning enzymes, digestive disturbances, or age. Utilizing these active cofactors enhances bioavailability and assures that the body is getting the nutrients it needs.

active B-vitamins adenosylcobalamin

active B-vitamins pyridoxal 5' phosphate & riboflavin 5' phosphate

ensure greater bioavailability and efficacy for your patients



all ascorbic acid products
manufactured by Thorne contain only
pure, crystalline vitamin C – without
added corn starch, magnesium
stearate, or other lubricants
and diluents – to ensure greater
bioavailability and efficacy for your
patients.

antioxidants oncology support immune support wound healing vitamin C

Pure Ascorbic Acid

Supplement Facts Serving Size: One Capsule Servings Per Container: 180

Each Capsule Contains: % DV
Vitamin C (as Ascorbic Acid) 500 mg. 833%
Daily Value (DV)

Other Ingredients: Hypromellose (derived from cellulose) capsule.

180 Vegetarian Capsules Code: C150 Dosage: 1 to 6 capsules bid

vitamin C and cancer article (3-3)

product data sheet

Pure Ascorbic Acid providing 500 mg vitamin C in each vegetarian capsule

Ascorbic acid (vitamin C) has several mechanisms of action that give it wide ranging therapeutic value. It is a potent water-soluble antioxidant, enhances the immune system, has antiviral effects, inhibits hyaluronidase, and stimulates collagen formation.

Vitamin C is essential for wound healing because it is a cofactor for the synthesis of collagen, proteoglycans, and other organic components of the extracellular matrix. The combined effects of vitamin C on collagen synthesis, antioxidant status, and immune function make it an important nutrient for surgery patients and wound repair.

Vitamin C is necessary for the action of cytochrome P450 enzymes of phase I detoxification. In addition, as an antioxidant, it can help quench free radical intermediates created during this first phase of detoxifying substances in the liver. Furthermore, vitamin C raises glutathione by increasing the rate of synthesis, thus enhancing phase II detoxification as well. Vitamin C can protect against the toxic effects of some heavy metals, including lead, aluminum, and cadmium.

Each Capsule Contains:		% DV
Vitamin C (as Ascorbic Acid)	1000 mg.	1667%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule.

250 Vegetarian Capsules Code: C149 Dosage: 1 to 3 capsules bid

oncology support antioxidants

immune support wound healing

vitamin C

detoxification support

detox booklet product data sheet

Pure Ascorbic Acid One Gram providing 1,000 mg vitamin C in each vegetarian capsule

High-dose vitamin C (several grams daily) has been advocated for optimizing immune function and antioxidant support. Evidence for the efficacy of high-dose ascorbic acid is due in large part to the groundbreaking research conducted by two-time Nobel laureate, Linus Pauling, PhD. Studies in the 1970s and 1980s conducted by Pauling and Ewan Cameron, MD, suggest high doses of vitamin C (10 grams/day IV for 10 days followed by $\geq \! 10$ grams/day orally) help increase survival time and improve the quality of life of terminal cancer patients.

→ a buffered vitamin C supplement for individuals with sensitive or compromised digestive systems

Buffered C Powder

for individuals sensitive to the acidity of pure ascorbic acid

There are times when high doses of vitamin C are clinically indicated. However, this can be a challenge for patients who have sensitive or compromised digestive systems. For these individuals Thorne Research has developed Buffered C Powder. Each scoop supplies the same pure, crystalline vitamin C found in Thorne's Pure Ascorbic Acid, along with a blend of calcium, magnesium, and potassium mineral ascorbates that serve as a buffer, allowing sensitive individuals to take large amounts of vitamin C with ease and comfort. In addition to high-dose vitamin C, Buffered C Powder also provides calcium, magnesium, and potassium in therapeutic doses – 350 mg each of calcium and magnesium and 99 mg potassium.

vitamin C

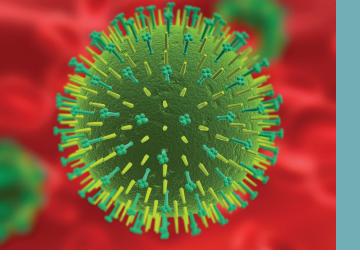
Buffered C Powder

Supplement Facts Serving Size: One ScoopServings Per Container: 45

Each (5g) Scoop Contains:		% DV
Vitamin C (as Ascorbic Acid)	2350 mg.	3917%
Calcium (Ascorbate reacted from		
Calcium Carbonate and Ascorbic Acid)	350 mg.	35%
Magnesium (Ascorbate reacted from		
Magnesium Carbonate and Ascorbic Acid	d) 350 mg.	87.5%
Potassium (Ascorbate reacted from		
Potassium Bicarbonate and Ascorbic Ac	id) 99 mg.	3%
Daily Value (DV)		

NET WT. 8 OZ. (227 G) Code: C155 Dosage: 1/2 to 1 scoop qd

product data sheet



→ a synergistic blend of vitamin C, echinacea, wild indigo, and hesperidin methyl chalcone

immune support respiratory support vitamin C

Synergisti-C[™]

Supplement Facts
Serving Size: Two CapsulesServings Per Container: 3

Two Capsules Contain:		% DV
Vitamin C (as Ascorbic Acid)	650 mg.	1083%
Echinacea angustifolia (root)	400 mg.	*
Wild Indigo (root) (Baptisia tinctoria)	100 mg.	*
Hesperidin Methyl Chalcone	100 mg.	*
*0.7.14.1 (000 1.1.15.1.1		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

60 Vegetarian Capsules Code: C160 Dosage: 1 to 2 capsules bid

> colds and flu article (12-1) echinacea monograph (PDF) product data sheet

Synergisti-C™

vitamin C with immuno-supportive botanicals and flavonoids

The beneficial effects of vitamin C on the immune system are well established and include enhanced phagocytosis by white blood cells, increased immune globulin production, and stimulation of lymphocyte production when exposed to antigens.

Echinacea is well known in traditional botanical medicine for its benefit on the immune system. Studies have demonstrated Echinacea's efficacy in activating NK cells and bacteriolysis, neutralizing viruses, and increasing interferon levels. Echinacea also inhibits hyaluronidase, secreted by a variety of pathogenic invading organisms, thereby protecting the integrity of mucosal surfaces and preventing entry of the pathogen.

Baptisia (wild indigo) is an herb often used in combination with Echinacea to support a healthy respiratory tract and lymphatic system.

Hesperidin methyl chalcone is a water-soluble bioflavonoid with potent antioxidant properties that increases intracellular levels of vitamin C and stabilizes mast cells, preventing histamine release.

Thorne Research has blended all these key elements together to create Synergisti-C, an effective mixture of vitamin C with botanicals and flavonoids for well-rounded immune support all year.

other products to see: IM-Encap, Phytogen, HMC Hesperidin

[†]A hypoallergenic ingredient used to fill space.

Vitamin C (ascorbic acid) is one of the most well known nutrients worldwide. Such recognition is deserved, considering its role in nutritional biochemistry. Not only is vitamin C a key antioxidant, protecting cells throughout the body from free radical damage, this water-soluble vitamin serves as a cofactor in the synthesis of neurotransmitters, such as dopamine and norepinephrine, and plays an integral role in the production of cellular energy. Vitamin C is essential for proper metabolism of carbohydrates and synthesis of fats and proteins. It helps break down cholesterol and maintain healthy immune function. Vitamin C is essential for wound healing because it is a cofactor for the synthesis of collagen, proteoglycans, and other organic components of the extra-cellular matrix.

Vitamin C with Flavonoids

a synergistic combination

The term ascorbic acid refers to vitamin C in its purest form, not bound to any other compound. Thorne's Vitamin C with Flavonoids contains ascorbic acid and citrus flavonoids (a mixture of naturally-occurring flavonoids, including rutin, hesperidin, and quercetin), and is 100-percent pure. Unlike many vitamin C supplements from other companies, Thorne's vitamin C supplements contain no corn starch. Although it is a myth that ascorbic acid will not work in the body without flavonoids, vitamin C does work better if accompanied by flavonoid molecules, as their presence in cells spares vitamin C and provides greater antioxidant activity.

Vitamin C is an essential, water-soluble antioxidant for collagen stabilization. A deficiency can result in poor collagen cross-linkage. Bioflavonoids have some of the same mechanisms of action, potentiating the effect of ascorbic acid.

In addition to immune support, connective tissue support, and its role in cellular energy production, antioxidant activity is one of the primary reasons for vitamin C supplementation. In addition to potent antioxidant activity, flavonoids support key functions in the body because of their anti-inflammatory, antihistamine, antimutagenic, and antiviral activity. Factors requiring higher vitamin C include smoking, alcohol ingestion, stress, diabetes, pregnancy, environmental toxicity, and use of certain drugs.

other products to see: Diosmin-HMC

allergy support antioxidants flavonoids immune support peripheral vascular support gingival support vitamin C

Vitamin C With Flavonoids

Supplement Facts

co. ting cizor cito capoanoco tingo i o		
Each Capsule Contains:		% DV
Vitamin C (as Ascorbic Acid)	500 mg.	833%
Citrus Bioflavonoids	75 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

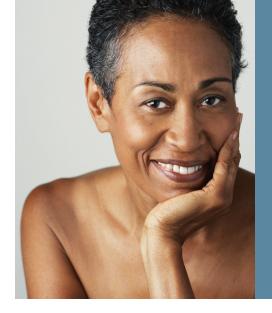
[†]A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules Code: C152 Dosage: 1 to 2 capsules tid

product data sheet



The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.



- → health-care practitioners trust Thorne to provide them with pure, vitamin D without hidden ingredients like lactose, BHT, BHA, sodium benzoate, and sorbic acid
- → two convenient dosages

immune support bone support women's health vitamin D

D-1000[™]

Supplement Facts

co. rang cazor care capeanoco. rang	5 . 5. Gomminor . Go	
Each Capsule Contains:		% DV
Vitamin D3	1000 IU.	250%
Daily Value (DV)		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide,† vitamin E (mixed tocopherols).

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: D128 Dosage: 1 to 3capsules qd

vitamin D/fracture article (13-1)
vitamin D article (13-1)
vitamin D article (10-2)
vitamin D monograph
product data sheet

D-1000™

containing 1,000 IU of pure vitamin D3 per capsule

It is essential to maintain healthy vitamin D levels throughout all stages of life, from fetal development to old age. Vitamin D helps protect the body from bone disease and myriad other health conditions. Current vitamin D intake requirements are based on minimum allowances to protect against bone disease. These guidelines are now being revised upward in light of new research, especially pertaining to immune function. Cutting edge research suggests serum vitamin D levels should be in the range of 33-80 ng/mL 25-hydroxyvitamin D (25(OH)D). Although direct sunlight exposure is a good source of vitamin D, many people do not get enough sun due to season, latitude, or lifestyle. Therefore, vitamin D supplementation can be of great benefit in these cases.

While several factors contribute to decreased bone density and increased fracture rate, vitamin D deficiency/insufficiency clearly represents a significant factor. In a 2007 case-controlled study of the Women's Health Initiative Observational Study Cohort, women with the lowest levels of vitamin D (serum 25(OH) vitamin D less than 19 ng/mL) were found to have a 77-percent higher risk of hip fracture than women with the highest vitamin D level (average 28 ng/mL – which is still considered low). The amount of vitamin D needed to achieve minimum vitamin D sufficiency (commonly defined as a 32 ng/mL 25(OH)D blood level) depends on many factors and can vary significantly from individual to individual. Thus, the requirement for vitamin D supplementation needs to be individualized.

Thorne's D-1000 supplies 1,000 IU of pure, vitamin D3 in each vegetarian capsule. This potency is ideal for maintaining optimum vitamin D levels in healthy individuals.

other products to see: D-5000, Oscap, Oscap Plus

VITAMIN DILUTIONS

Most supplement manufacturers purchase micro-dose vitamins, such as vitamin D, vitamin K, and vitamin B12, from raw material suppliers as premixed dilutions to facilitate the mixing process. Unfortunately, the diluents used in these premixes frequently contain potentially detrimental ingredients such as lactose and the preservatives BHT, BHA, sodium benzoate, and sorbic acid.

At Thorne, our promise is to give you the purest supplements humanly possible. Therefore, we do not use pre-diluted nutrients such as these. Instead, we purchase pure, undiluted nutrients and create our own dilutions when necessary, utilizing pure, hypoallergenic ingredients. The resultant nutrient mix is then added to our supplements, ensuring the proper amount of each pure nutrient is contained in each capsule.

D-5000™

for individuals requiring high-dose vitamin D supplementation

Vitamin D deficiency is quite common, particularly among the elderly. A study conducted at a hospital in Glasgow, Scotland, found an almost universal deficiency in vitamin D among a group of 548 elderly patients who were admitted for hip fractures. Likewise, low vitamin D levels have been associated with increased risk for multiple sclerosis, myofascial pain, and certain forms of cancer.

Treatment of colds and influenza with pharmacological doses of vitamin D may only be the tip of the infectious disease iceberg. Vitamin D-sensitive antimicrobial peptides (AMP) have been identified that inhibit the HIV virus. Invasive pneumococcal disease, meningococcal disease, and group A streptococcal disease (all three sensitive to AMP) are more common when vitamin D levels are lowest in winter, raising the possibility that pharmacological doses of vitamin D would be an effective adjuvant treatment. In fact, the dramatically increased production of AMPs by vitamin D and the broad spectrum of action of AMP make it reasonable to hypothesize that pharmacological doses of vitamin D are effective adjuvants in treating a large number of infections.

Deficient individuals may need 5,000-10,000 IU of vitamin D daily to replenish tissue stores. With these patients specifically in mind, Thorne's D-5000 supplies 5,000 IU of pure vitamin D3 in each vegetarian capsule.

other products to see: D-1000, Oscap, Oscap Plus

immune support bone support women's health oncology support vitamin D

D-5000[™]

Supplement Facts Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains: % DV Vitamin D3 5000 III. 1250% Daily Value (DV)

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† vitamin E (mixed tocopherols), Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: D138 Dosage: 1 to 3 capsules qd

vitamin D/fracture article (13-1) vitamin D article (13-1) vitamin D article (10-2) vitamin D monograph product data sheet



- → proven effective in preventing bone loss
- → combine with high potency vitamin D to keep the calcium in the bones
- → shown to have anti-tumorogenic properties

Vitamin K2

concentrated vitamin K2 in a convenient liquid form

Vitamin K2 is a series of molecules known as menaquinones, some of which are found naturally in fermented soybeans. Vitamin K2 exerts a more powerful influence on bone than vitamin K1. Vitamin K2 encompasses a number of molecules known as menaquinones, the most common and well-studied of which is MK-4. Thorne's vitamin K2 is MK-4.

Vitamin K2 appears to offer significant benefit for prevention of osteoporosis. Clinical and epidemiological evidence points to a decrease in vertebral and hip fracture rate, respectively. Although much of the research has been conducted on postmenopausal osteoporosis, because it does not have estrogenic effects, vitamin K2 may be an appropriate preventive for bone loss from other causes as well. Positive studies support the use of vitamin K2 for the prevention of bone loss in anorexia nervosa, patients on dialysis, Parkinson's disease, liver cirrhosis, graft-versus-host disease following bone marrow transplant, chronic steroid use in children, and post-stroke immobilization. The activity of vitamin K2 involves both an increase in the bone-building process and a separate decrease in the bone-loss process.

Both *in vitro* and *in vivo* studies have shown that vitamin K2 also exhibits anticancer effects. A number of cancer cell lines have been screened (including liver, colon, leukemia, lung, stomach, lymphocyte, nasopharynx, breast, and oral epidermoid) for inhibition by vitamin K2. Studies conducted in Japan have found vitamin K2 provides significant benefit, both alone and in conjunction with other medications, for the treatment of hepatocellular carcinoma and in elderly patients with various leukemia diagnoses.

Thorne's Vitamin K2 Liquid supplies 1 mg of vitamin K2 per drop, allowing you to easily titrate the correct dosage for your patients.

oncology support women's health bone support vitamin K

Vitamin K2

Supplement Facts Serving Size: One Drop Each Drop Contains: % DV Vitamin K-2 (Menatetrenone) 1 mg. 1250% Daily Value (DV)

Other Ingredients: In a base of medium chain triglyceride oil and mixed tocopherols.

1 FL. OZ. (30 mL) Code: K170 Dosage: 15 drops tid

vitamin K article (8-3) vitamin K article (10-1) product data sheet

other products to see: Oscap Plus, D-1000, D-5000

Vitamin A

pure vitamin A for healthy vision, cellular development, and immunity

Vitamin A deficiency is a common occurrence and may be associated with a number of disease processes. Such deficiencies can be the result of poor food choices and depletion of vitamin A from processed foods. Vitamin A is vital for eye health, particularly for night vision and prevention of cataracts and macular degeneration. Vitamin A is also an essential nutrient for maintaining healthy skin, especially in management of acne and prevention of wrinkles. In addition, vitamin A plays a critical role in supporting healthy bone growth and promotion of normal cellular differentiation and growth.

Vitamin A is essential for a healthy immune system – necessary for a healthy GI mucosal barrier to infection and normal function of neutrophils, macrophages, and natural killer cells. A deficiency is associated with a poor antibody response to infection. Vitamin A deficiency is a common occurrence in HIV infection, with low serum levels found in 12-19 percent of HIV-positive, asymptomatic individuals in the United States; serum levels appear to decrease as the disease progresses. Vitamin A deficiency in pregnant, HIV-positive women has also been associated with increased transmission of HIV to the fetus.

For clinicians desiring a stand-alone source of vitamin A, consider Thorne's Vitamin A with 25,000 IU per capsule. As with our other single vitamin offerings, Thorne Research Vitamin A is free of any hidden preservatives or allergenic substances, for better tolerance even among the most sensitive patients.

other products to see: IM-Encap, Ocu-Clear

F-500

a water-soluble form of vitamin E

E-500 supplies pure d-alpha tocopherol in a form that is easy for patients to absorb. The d-alpha tocopherol in E-500 is extracted from vegetable oils via a distillation process that removes potential protein allergens. And, unlike many manufacturers, Thorne does not dilute the vitamin E with soy oil - further decreasing any allergenic potential. E-500 is water soluble. A natural emulsifier has been added to this product to make it more easily absorbed for those with fat malabsorption.

other products to see: Ultimate-E

immune support ocular support dermatology vitamin A

Vitamin A

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 % DV 25,000 IU. 500% Vitamin A (Palmitate) Daily Value (DV)

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: A97 Dosage: 1 to 4 capsules qd

vitamin A monograph (PDF) product data sheet

antioxidants cardiovascular support peripheral vascular support vitamin E

E-500

Supplement Facts Serving Size: One GelcapServings Per Container: 60		
Each Gelcap Contains:		% DV
Vitamin E (as d-Alpha Tocopherol)	500 IU.	1667%
Daily Value (DV)		

Other Ingredients: Gelatin (from tilapia) and glycerine (vegetable source) gelcap, olive oil, polysorbate 80.

Contains ingredient from fish (tilapia).

60 Fish Gelatin Gelcaps Code: E142 Dosage: 1 to 3 gelcaps qd Thorne Research **vitamin products — page 27**

vitamin E article (4-6)

product data sheet





antioxidants cardiovascular support peripheral vascular support vitamin E

Ultimate-E®

Each Gelcap Contains:		% DV
Vitamin E (as d-Alpha Tocopherol		
from 1000 mg mixed tocopherols)	500 IU.	1666%
Typical profile of Ultimate E:		
d-Alpha Tocopherol (500 IU minimum)	335 mg.	
Beta tocopherol*	9-11 mg.	
Gamma tocopherol*	400-450 mg.	
Delta tocopherol*	115-150 mg.	

tocopherols will vary slightly as this is a pure, natural product with weight adjusted to achieve 500 IU d-Alpha Tocopherol.

Other Ingredients: Gelatin (from tilapia) and glycerin (vegetable source) gelcap, water.

Contains ingredient from fish (tilapia)

60 Gelcaps Code: E143 Dosage: 1 to 3 gelcaps qd

vitamin E article (4-6) mixed tocopherol monograph product data sheet

- → a superior mixed tocopherol formula containing all natural forms of vitamin E
- → no soy oil added
- → a good source of gamma tocopherol
- → now in fish gelatin gelcaps

Ultimate-E®

a superior mixed tocopherol formula

Ultimate-E contains all of the natural isomers of vitamin E. Tocopherols provide protection from free radicals and products of oxygenation, including lipid peroxides and singlet oxygen radicals. Gamma-tocopherol exhibits anti-inflammatory activity by inhibition of the enzyme cyclooxygenase, whereas alpha-tocopherol does not appear to have a significant effect on this enzyme. Human studies comparing diets supplemented with both gamma- and alpha-tocopherols (more gamma than alpha) to diets supplemented primarily with alpha-tocopherol found more DNA protection in the mixed-tocopherol group than in the alpha-tocopherol only group. In *in vitro* studies gamma-, but not alpha-, tocopherol inhibited nitric oxide-induced pancreatic beta-cell destruction, offering potential intervention in the pathogenesis of type 1 diabetes.

Oxidative stress is an important component of the atherosclerotic process, and thus antioxidants such as vitamin E are vital to the overall antioxidant capacity in the blood and tissues. Numerous clinical studies have shown vitamin E is beneficial to the cardiovascular system, and recent studies looking at mixed tocopherols have indicated they have a stronger inhibitory effect on lipid peroxidation than alpha-tocopherol alone, indicating a more potent antioxidant effect of mixed tocopherols. A number of clinical studies have shown vitamin E supplementation decreases the risk of cardiac events and increases longevity. Supplementing with Ultimate-E, with its naturally occurring ratio of tocopherols, is an efficient way to supplement ALL of the naturally occurring vitamin E molecules, without the addition of soy oil as a filler.

Thorne's Ultimate-E contains pure, undiluted vitamin E. The vitamin E is extracted from a mixture of vegetable oils, including soy oil. However, any potentially allergenic soy residues are removed during the distillation process and, unlike most vitamin E products on the market, Ultimate-E is not diluted with soy oil! Because the tocopherols are from a natural source, the exact profile of tocopherols may vary slightly from batch to batch. Extra alpha-tocopherol is added to each batch to standardize the dose of this important tocopherol to 500 IU per capsule.

other products to see: E-500

- → complete B complex plus choline citrate
- → active forms of B2, B5, B6, folate, and B12
- → yeast free unlike many B vitamin formulas



mood enhancement vitamin B

Basic B Complex

comprehensive B complex support

Vitamin B-complex consists of a group of eight water-soluble compounds: thiamine (vitamin B1), riboflavin (vitamin B2), niacin (vitamin B3), pantothenic acid (vitamin B5), pyridoxine (vitamin B6), cobalamin (vitamin B12), folate, and biotin. Although each B vitamin is chemically distinct, they often work together in various biochemical functions throughout the body – from cellular energy production, to healthy red blood cell formation, to healthy neurological function. Most B vitamins, with the exception of vitamin B12, are not stored in the body. Consequently, they must be acquired daily from the diet in order to maintain optimal health.

Thorne's Basic B Complex contains the entire B-complex, including the activated forms of vitamin B2 (riboflavin 5'-phosphate), B6 (pyridoxal 5'-phosphate), folic acid (folinic acid and 5-methyl-tetrahydrofolate), and B12 (adenosylcobalamin and methylcobalamin), as well as 80 mg choline citrate. Although choline is often grouped with the B vitamin family, it is not officially a B vitamin.

Basic B Complex

Each Capsule Contains:		% DV
Thiamine (as Thiamine HCI)	40 mg.	26679
Riboflavin (as Riboflavin 5'- Phosphate)	11 mg.	6479
Niacin (from 10 mg Niacin and		
130 mg Niacinamide)	140 mg.	7009
Vitamin B6 (as Pyridoxal 5'- Phosphate)	10 mg.	5009
Folate (200 mcg as Calcium Folinate and		
200 mcg as 5-Methyl-tetrahydrofolate)	400 mcg.	1009
Vitamin B12 (200 mcg as Adenosylcobala	amin and	
200 mcg as Methylcobalamin)	400 mcg.	66679
Biotin	400 mcg.	1339
Pantothenic Acid (as Calcium Pantothenate) 100 mg.	10009
Choline Citrate	80 mg.	*

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B104 Dosage: 1 to 3 capsules qd

product data sheet

neurological support vitamin B

B-Complex #1

Supplement Fact Serving Size: One CapsuleServings Per Conta		
Each Capsule Contains:		% DV
Thiamine (as Thiamine HCI)	200 mg.	13,334%
Riboflavin (from 25 mg Riboflavin and		
5 mg Riboflavin 5'- Phosphate)	28.6 mg.	1682%
Niacin (as Niacinamide)	80 mg.	400%
Vitamin B6 (from 25 mg Pyridoxine HCl an	d	
5 mg Pyridoxal 5'- Phosphate)	23.4 mg.	1170%
Folate (100 mcg as Calcium Folinate and		
100 mcg as 5-Methyl-tetrahydrofolate)	200 mcg.	50%
Vitamin B12 (50 mcg as Adenosylcobalam	in and	
50 mcg as Methylcobalamin)	100 mcg.	1667%
Biotin	80 mcg.	27%
Pantothenic Acid (as Calcium Pantothenate)	45 mg.	450%
Choline Citrate	40 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

60 Vegetarian Capsules Code: B101 Dosage: 1 to 3 capsules qd

> thiamine monograph product data sheet detox booklet

B-Complex #1

extra thiamine in a full B-complex formula

Deficiency of thiamine can manifest as mental confusion, anorexia, muscle weakness, indigestion, constipation, tachycardia, neuropathies, and palpitations. Causes for deficiency include malnutrition, genetic polymorphisms, and excessive consumption of caffeine and alcohol.

The B vitamins are all essential for healthy nerve cell function – especially thiamine, folate, and vitamin B12. Thiamine blocks three major biochemical pathways involved in glucose-induced vascular damage, neurological damage, retinopathy, and nephropathy.

Thorne's B-Complex #1 supplies 200 mg of thiamine HCl and bioactive forms of the other B vitamins in each capsule to ensure your patients get the most bioavailable B-complex available for immediate utilization.

neurovascular support vitamin B

Riboflavin 5'-Phosphate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Riboflavin (as Riboflavin 5'- Phosphate) 36.5 mg. 2147% Daily Value (DV)

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B115 Dosage: 1 to 3 capsules qd

migraine article (4-2) product data sheet

Riboflavin 5' Phosphate the bioactive form of riboflavin

Riboflavin, also known as vitamin B2, plays a key role in the activation and conversion of other B vitamins. For instance, it is necessary for activation of vitamin B6, conversion of tryptophan to niacin, and activation of folate to its various coenzyme forms. Riboflavin also plays a crucial role in fat and glucose metabolism, red blood cell synthesis, and the production and regulation of certain hormones. Absorption of riboflavin occurs in the upper Gl tract. As with many B vitamins, riboflavin must be converted to its active form riboflavin 5' phosphate (R5P) in order to be utilized. A compromised digestive system can adversely affect the body's ability to convert riboflavin to R5P. Further, certain prescription medications can interfere with proper absorption of riboflavin and deplete the body of its stores.

[†]A hypoallergenic ingredient used to fill space.

Niacinamide

high-dose niacinamide for cellular protection and antioxidant support

The B-vitamin niacinamide, also known as nicotinamide, is the amide of vitamin B3. It acts as an antioxidant, inhibiting free radical formation and has been shown to promote pancreatic beta-cell regeneration. Niacinamide has been used successfully to prevent or delay the onset of type 1 diabetes among high-risk individuals, defined by high islet-cell antibodies and family history of type 1 diabetes. Niacinamide has also been found to stimulate GABA receptors without binding to the receptor sites, thus creating a benzodiazepine-like effect. Anti-inflammatory action has also been reported for niacinamide. High doses of niacinamide have been documented as being beneficial in managing joint pain due to arthritis. Niacinamide has also been used to treat several types of dermatological pathologies. In a review of treatments for bullous pemphigoid, treatment with a niacinamide/tetracycline combination showed promising results.

musculoskeletal support vitamin B

Niacinamide

Supplement Facts Serving Size: One CapsuleServings Per Container: 180 Each Capsule Contains: % DV Niacin (as Niacinamide) 500 mg. 2500%

Other Ingredients: Hypromellose (derived from cellulose) capsule.

180 Vegetarian Capsules Code: B131 Dosage: 1 to 2 capsules tid

niacinamide monograph product data sheet

B-Complex #3

extra niacin and niacinamide in a comprehensive B-complex formula

A component of the water-soluble vitamin B-complex, niacin (vitamin B3, nicotinic acid) is involved in numerous reversible oxidation-reduction reactions. Niacin is essential for proper metabolism of carbohydrates, fats, and proteins. Furthermore, it is needed for alcohol detoxification. In fact, alcoholism is a prime cause of vitamin B3 deficiency. Niacinamide (nicotinamide, nicotinic acid amide) is the amide of the B-vitamin niacin, and is an essential component of nicotinamide adenine dinucleotide (NAD+) and nicotinamide adenine dinucleotide phosphate (NADPH+), both of which are involved in electron and hydrogen transfer. Niacinamide may also have unique benefits in glucose regulation and the maintenance of healthy joints.

vitamin B

B-Complex #3

Supplement Facts

Each Capsule Contains:		% DV
Thiamine (as Thiamine HCI)	40 mg.	2667%
Riboflavin (from 25 mg Riboflavin and		
5 mg Riboflavin 5'- Phosphate)	28.6 mg.	1682%
Niacin (from 20 mg Niacin and		
275 mg Niacinamide)	295 mg.	1475%
Vitamin B6 (from 25 mg Pyridoxine HCl an	d	
5 mg Pyridoxal 5'- Phosphate)	23.4 mg.	1170%
Folate (100 mcg as Calcium Folinate and		
100 mcg as 5-Methyl-tetrahydrofolate)	200 mcg.	50%
Vitamin B12 (50 mcg as Adenosylcobalam	in and	
50 mcg as Methylcobalamin)	100 mcg.	1667%
Biotin	80 mcg.	27%
Pantothenic Acid (as Calcium Pantothenate) 45 mg.	450%
Choline Citrate	40 mg.	*

Other Ingredients: MagnesiumCitrateLaurate, † Hypromellose (derived from cellulose) capsule, Silicon Dioxide. †

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B103 Dosage: 1 to 3 capsules qd

product data sheet





peripheral vascular support lipid support vitamin B

Niasafe-600®

Supplement Facts

Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains: **% DV**Niacin (from 600 mg Inositol Hexaniacinate) 510 mg. 2550%

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules
Code: B113
Dosage: 1 to 3 capsules tid

also available 180 Vegetarian Capsules Code: B114

inositol hexaniacinate article (1-3) inositol hexaniacinate monograph product data sheet

- → a high potency form of niacin without the flushing
- → diminished impact on the liver
- → improves peripheral vascular circulation
- → shown to lower lipids

Niasafe-600®

inositol hexaniacinate – a safer, non-flushing alternative to niacin

Niacin has long been prescribed for the treatment of various cardiovascular conditions, particularly hyperlipidemia. It has been proven effective at lowering VLDL, LDL, total cholesterol, and triglyceride levels, while raising HDL levels. The side effects of niacin that may occur at the dosages often required for therapeutic efficacy, ranging from flushing and pruritis to hepatoxicity and impaired glucose tolerance, often prove troubling for both patient and practitioner.

The need for a safer approach to niacin supplementation resulted in the investigation of niacin esters. One of the most widely studied of these is inositol hexaniacinate (IHN). In numerous trials it has been found to be virtually free of the side effects associated with conventional niacin therapy. Pharmacokinetic studies show the IHN molecule is absorbed intact and slowly hydrolyzed in the bloodstream, with the release of free niacin and inositol. Maximum serum levels are reached approximately 10 hours after ingestion. This allows for a more delayed release of niacin, which reduces the risk of flushing.

Extensive research has found IHN to be effective in the treatment of Raynaud's disease and intermittent claudication. A review of the literature reveals numerous positive studies on the use of IHN in Raynaud's disease. The typical dosage is 1 g four times daily for several months. The mechanism of action appears to be more than just a transient vasodilation, involving lipid lowering and fibrinolysis. This explains the need for long-term administration. The use of inositol hexaniacinate for the treatment of intermittent claudication secondary to atherosclerosis has been examined extensively. Significant improvement has been reported by several investigators at dosages of 2 g twice daily, typically for at least three months. While arterial dilation may be a factor, it has been postulated that reduction in fibrinogen, improvement in blood viscosity, and resultant improvement in oxygen transport are involved in the therapeutic effects. IHN appears to have application in the treatment of other conditions resulting from peripheral vascular insufficiency, including restless legs syndrome, stasis dermatitis, atherosclerosis related migraines, and hypertension.

other products to see: Perfusia-SR, Ultimate-E, Choleast, Pharmacol-40

Thorne Research **vitamin products – page 3**3

Pantethine

active vitamin B5 for healthy lipid metabolism and adrenal function

Pantethine is the stable, metabolically active form of pantothenic acid, or vitamin B5. Pantethine is a vital component of coenzyme A (CoA), a cofactor for dozens of enzymatic reactions, including those involved with fatty acid oxidation and carbohydrate metabolism. Clinical trials suggest that, because its biochemical configuration is closer to CoA than pantothenic acid, pantethine may have more clinical benefit in conditions where pantothenic acid has not been effective. Pantethine appears to augment fatty acid oxidation by activation of coenzyme A, promotion of carnitine transport of fatty acids into the mitochondria, and subsequent intramitochondrial fatty acid oxidation.

Consequently, pantethine supplementation has been found to lower total cholesterol, triglycerides, LDL cholesterol, and apolipoprotein B, which if high, are all risk factors for cardiovascular disease. In addition, increases in beneficial HDL cholesterol and apolipoprotein A have been noted in association with pantethine supplementation. Pantethine has also been found to decrease platelet aggregation in people with diabetes.

Pantethine is also considered the "antistress" vitamin because it supports healthy adrenal cortex function and hormone synthesis, particularly during times of stress. Pantothenic acid deficiency can result in adrenal atrophy, which is characterized by increased fatigue, headaches, sleep disturbances, nausea, and abdominal discomfort.

B-Complex #5

a vitamin B-Complex with extra B5 for adrenal support

Pantothenic acid (vitamin B5) is part of the B-vitamin complex and is essential for healthy adrenal and immune function. In particular, pantothenic acid serves as the starting material for the synthesis of coenzyme A, which acts as the carrier of acyl groups in oxidation, acetylation, and decarboxylation reactions, and is instrumental in the synthesis of fatty acids and adrenal hormones. It plays a key role in the formation of acetylcholine, which is needed in the transmission of nerve impulses and for detoxification of certain drugs. Thorne supplies 250 mg of pantothenic acid in each capsule of B-Complex #5 in addition to a blend of B vitamins. This formula provides support for your patients who not only require a good vitamin B-complex, but who may also need extra adrenal support.

adrenal support lipid support cardiovascular support vitamin B

Pantethine

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 % DV Each Capsule Contains: Pantethine 250 mg. *Daily Value (DV) not established

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF706 Dosage: 1 to 2 capsules bid

pantethine article (2-5) pantethine monograph product data sheet

adrenal support vitamin B

B-Complex #5

Serving Size: One CapsuleServings Per Conta Each Capsule Contains:	niner: 60	% DV
Thiamine (as Thiamine HCI)	40 mg.	2667%
Riboflavin (from 25 mg Riboflavin and		
5 mg Riboflavin 5'- Phosphate)	28.6 mg.	1682%
Niacin (as Niacinamide)	80 mg.	400%
Vitamin B6 (from 25 mg Pyridoxine HCl a	nd	
5 mg Pyridoxal 5'- Phosphate)	23.4 mg.	1170%
Folate (100 mcg as Calcium Folinate and		
100 mcg as 5-Methyl-tetrahydrofolate)	200 mcg.	50%
Vitamin B12 (50 mcg as Adenosylcobalar	nin and	
50 mcg as Methylcobalamin)	100 mcg.	1667%
Biotin	80 mcg.	27%
Pantothenic Acid (as Calcium Pantothenate) 225 mg.	2250%
Choline Citrate	40 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B105 Dosage: 1 to 3 capsules qd

product data sheet

Each Capsule Contains:		% DV
Thiamine (as Thiamine HCI)	40 mg.	2667%
Riboflavin (from 25 mg Riboflavin and		
5 mg Riboflavin 5'- Phosphate)	28.6 mg.	1682%
Niacin (as Niacinamide)	80 mg.	400%
Vitamin B6 (from 250 mg Pyridoxine HCl and		
10 mg Pyridoxal 5'- Phosphate)	206.8 mg.	10,340%
Folate (100 mcg as Calcium Folinate and		
100 mcg as 5-Methyl-tetrahydrofolate) 200 mcg.	50%
Vitamin B12 (50 mcg as Adenosylcobala	min and	
50 mcg as Methylcobalamin)	100 mcg.	1667%
Biotin	80 mcg.	27%
Pantothenic Acid (as Calcium Pantothena	ate) 45 mg.	450%
Choline Citrate	40 mg.	*

Other Ingredients: MagnesiumCitrateLaurate, † Hypromellose (derived from cellulose) capsule, Silicon Dioxide. †

60 Vegetarian Capsules Code: B106 Dosage: 1 to 3 capsules qd

product data sheet

B-Complex #6

B-Complex support with extra pyridoxine and pyridoxal 5'-phosphate

Pyridoxine (vitamin B6) and its bioactive form, pyridoxal 5'-phosphate (P5P), are essential for such processes as amino acid metabolism, neurotransmitter synthesis, and glycogen breakdown. They are also involved in heme synthesis, conversion of tryptophan to niacin, and proper metabolism of fatty acids. Because the conversion of pyridoxine to P5P occurs in the liver, a compromise in liver function can have deleterious effects on P5P levels in the body, placing one at risk of vitamin B6 deficiency. Signs of deficiency include seborrheic dermatitis, glossitis, chelosis, peripheral neuropathy, lymphopenia, and anemia. Thorne's B-Complex #6 combines a comprehensive complex of B vitamins with pyridoxine HCl and P5P to ensure that your patients receive complete B vitamin support, along with sufficient amounts of vitamin B6.

hepatic support neuroendocrine support kidney support urinary tract support vitamin B

Pyridoxal 5'- Phosphate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Vitamin B6 (as Pyridoxal 5'- Phosphate) 33.8 mg. 1690%

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B116 Dosage: 1 to 2 capsules bid

> also available 180 Vegetarian Capsules Code: B126

pyridoxal 5' phosphate monograph product data sheet

Pyridoxal 5' Phosphate

the bioactive form of vitamin B6

Pyridoxine, also known as vitamin B6, is necessary for the transformation and utilization of amino acids for many functions in the body, including energy production of energy and neurotransmitter synthesis. B6 is also involved in the production of hemoglobin, intrinsic factor, and is a vital component in the formation of the myelin sheath that surrounds nerve cells. But in order for pyridoxine to be used by the body it must first be converted to pyridoxal 5' phosphate (P5P). This process takes place in the liver. Individuals with compromised liver function have difficulty making this conversion. Consequently, they may be at risk of a relative vitamin B6 deficiency. Signs of deficiency include seborrheic dermatitis, glossitis, chelosis, peripheral neuropathy, lymphopenia, and anemia; in infants, a vitamin B6 deficiency can cause convulsions. Supplementing with Thorne's P5P ensures that your patients receive the most bioactive form of vitamin B6.

[†]A hypoallergenic ingredient used to fill space.

two active forms of vitamin B12, plus two active forms of folate in one convenient B-complex

Vitamin B12 and folate are necessary for normal red blood cell formation, tissue and cellular repair, homocysteine metabolism, and DNA synthesis. A B12 and/or folate deficiency may indicate a chronic shortage of one or both of these vitamins. Over time, this deficiency can lead to macrocytic anemia. Individuals who have this condition may tire easily, be weak, and be short of breath. Vitamin B12 deficiency can also manifest in varying degrees of neuropathy and mental changes such as confusion, irritability, and depression.

Decreased B12 and/or folate levels may be associated with chronic disorders such as liver or kidney disease or alcoholism. In addition, certain medications, such as phenytoin (for seizures), metformin (for type 2 diabetes), or methotrexate (rheumatoid arthritis/cancer treatment), can result in deficiencies of these important vitamins. Incidence of vitamin B12 and/or folate deficiency is high among the elderly. Pregnant women require increased amounts of folate for proper fetal development. Women with a folate deficiency prior to pregnancy can expect the deficiency to be intensified during gestation, increasing the risk of premature birth and neural tube birth defects, such as spina bifida.

other products to see: 5-MTHF, Methylcobalamin, Folacal, Ferrasorb

cardiovascular support vitamin B

B-Complex #12

Each Capsule Contains:		% DV
Thiamine (as Thiamine HCI)	40 mg.	26679
Riboflavin (from 25 mg Riboflavin and		
5 mg Riboflavin 5'- Phosphate)	28.6 mg.	16829
Niacin (as Niacinamide)	80 mg.	4009
Vitamin B6 (from 25 mg Pyridoxine HCI an	d	
5 mg Pyridoxal 5'- Phosphate)	23.4 mg.	11709
Folate (200 mcg as Calcium Folinate and		
200 mcg as 5-Methyl-tetrahydrofolate)	400 mcg.	1009
Vitamin B12 (300 mcg as Adenosylcobala	min and	
300 mcg as Methylcobalamin)	600 mcg.	10,000%
Biotin	80 mcg.	279
Pantothenic Acid (as Calcium Pantothenate) 45 mg.	4509
Choline Citrate	40 mg.	*

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B112 Dosage: 1 to 3 capsules qd

product data sheet

Bio-B12®

vitamin B12 and folic acid in a base of papain for enhanced absorption

Typically, cobalamin deficiency occurs because of malabsorption of vitamin B12 or defective delivery of cobalamin to the peripheral tissues. Prior to Bio-B12, oral supplements did not address the major problem in B12 absorption – pancreatic protease deficiency. In the ileum, receptor sites that mediate the intestinal absorption of B12 require that cobalamin be bound by intrinsic factor, a highly specific glycoprotein secreted by the parietal cells of the gastric mucosa. The salivary glands and stomach secrete other cobalamin-binding proteins known collectively as R-proteins. In an acidic pH, these R-proteins bind cobalamin 50 times more tightly than intrinsic factor. R-proteins release cobalamin and allow it to bind to intrinsic factor only after they are degraded by proteases. Thorne's Bio-B12 contains methylcobalamin, the active form of vitamin B12, and folic acid in a base of papain, a potent proteolytic enzyme from papaya. Zinc picolinate is included for pancreatic support.

cardiovascular support vitamin B

Bio-B12®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains:		% DV
Vitamin B12 (as Methylcobalamin)	1000 mcg.	16667%
Folic Acid	800 mcg.	200%
Zinc (as Zinc Picolinate)	15 mg.	100%
Papain (enzyme from Papaya)	75 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

 $^{\rm t}{\rm A}$ hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B120 Dosage: 1 to 3 capsules qd

product data sheet

BACK TO ALPHA INDEX

carbohydrate metabolism dermatology vitamin B

Biotin-8

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Biotin 8000 mcg. 2667% Daily Value (DV)

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B118 Dosage: 1 capsule qd - bid

> biotin monograph product data sheet

Biotin-8 a high-dose formulation of biotin

Biotin is a water-soluble B vitamin that can have a beneficial effect on a number of conditions ranging from brittle nails to diabetes. In a clinical trial, 45 patients with brittle nails received oral supplementation of 2.5 mg biotin daily for 1.5-7 months. Ninety-one percent showed "definite improvement," exhibiting firmer, harder nails after an average of two months of treatment.

Biotin in high doses, such as are present in Thorne's Biotin-8, improves abnormal glucose metabolism by stimulating glucose-induced insulin secretion in pancreatic beta cells and by accelerating glycolysis in the liver. Biotin also enhances muscle insulin sensitivity by increasing guanylate cyclase activity. In addition to blood sugar metabolism, human studies suggest poor biotin status can have an adverse effect on plasma lipid levels.

neuroendocrine support cardiovascular support vitamin B

Methylcobalamin

Supplement F Serving Size: One CapsuleServings P	
Each Capsule Contains:	% DV
Coenzyme Vitamin B12	
(as Methylcobalamin**)	1000 mcg. 16,667%
Daily Value (DV)	

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

 $^{\rm t}{\rm A}$ hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B125 Dosage: 1 to 3 capsules qd

*Coenzyme B12 - a metabolically active form of B12.

B12 article (2-6) methylcobalamin monograph product data sheet

Methylcobalamin

active vitamin B12 for healthy methylation

Methylcobalamin (coenzyme B12), an active coenzyme form of B12, is an important cofactor in the enzyme methionine synthase, which is essential for recycling homocysteine and the formation of methyl donors involved in cardiovascular function, sleep, blood cell formation, and nerve function. Most vitamin B12 supplements contain cyanocobalamin; however, the liver must "detoxify" the cyanide molecule and attach a methyl group to form methylcobalamin from cyanocobalamin. Methylcobalamin is already in the biologically active, tissue-ready form. Evidence indicates methylcobalamin is utilized more efficiently than cyanocobalamin. The quantity of cobalamin detected following a small oral dose of methylcobalamin is similar to the amount following administration of cyanocobalamin; but significantly more cobalamin accumulates in liver tissue following administration of methylcobalamin. Human urinary excretion of methylcobalamin is about one-third that of a similar dose of cyanocobalamin, indicating substantially greater tissue retention.

Vitamin B12 deficiency can cause a number of neurological sequelae, including balance disturbances, loss of vibration sense, peripheral neuropathy, mood disorders, insomnia, confusion, and in advanced cases, dementia.

other products to see: B-Complex #12, Bio-B12

- → a breakthrough in folate supplementation
- → the most bioavailable, active form of folate
- → especially for those who may have an enzyme defect that prevents the efficient utilization of folic acid



5-MTHF (5-Methyl-tetrahydrofolate)

the most biologically active form of folic acid

Folic acid must be converted to its active forms to be used by the body. This is a multi-step biochemical process that occurs in the intestines and liver. In the presence of intestinal or liver dysfunction this conversion may not occur sufficiently enough to meet the body's needs. Furthermore, up to onethird of the U.S. population may have a genetic enzyme defect that makes it difficult for them to convert folic acid (even folinic acid) into active 5-MTHF. For these individuals and many others, 5-MTHF supplementation may be a more effective method of folate repletion.

Because deficiencies of folic acid have been linked to low-birth-weight infants and neural tube defects, folic acid requirements double during pregnancy. The Centers for Disease Control and Prevention recommends folic acid supplementation for all women of childbearing age because the biggest need is during the first trimester, when a woman may not even be aware she is pregnant. Women predisposed to having a child with a neural tube defect may have an abnormality in the ability to convert folic acid to the more active 5-MTHF. Supplementation with the more active form may be preferable.

In concert with vitamin B12, 5-MTHF functions as a methyl-group donor involved in the conversion of the amino acid homocysteine to methionine. Methyl-group donation is vital to many biochemical conversion processes, including the synthesis of serotonin, melatonin, and DNA. Certain neurological, cognitive, and psychiatric conditions, including depression, peripheral neuropathy, myelopathy, restless legs syndrome, insomnia, forgetfulness, irritability, dementia, endogenous depression, organic psychosis, and schizophrenia-like syndromes may be secondary to folate deficiency.

Depression is associated with lower serum and RBC folate concentrations. and a folate deficiency predicts a poorer response to some antidepressant medications. Several studies have documented improvement in depression in patients subsequent to oral supplementation with folate at doses of 5-50 mg daily. Folic acid (500 mcg per day) significantly improved the antidepressant action of fluoxetine in subjects with major depression.

other products to see: Folacal, Folic Acid Liquid

women's health neuroendocrine support cardiovascular support mood enhancement neurological support vitamin B

5-MTHF

Supplement Facts Each Capsule Contains: % DV Folate (as 5-Methyl-tetrahydrofolate)

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B129 Dosage: 1 to 3 capsules qd

folate article (3-3) 5-methyl-tetrahydrofolate monograph product data sheet It is important for all women of childbearing age to get enough folic acid - not just those who are planning to become pregnant. Only 50% of pregnancies are planned, so any woman who could become pregnant should make sure she's getting enough folic acid every day - especially before conception and during early pregnancy.

women's health vitamin B

Folacal®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60	
Each Capsule Contains:	% DV
Folate (Folinic Acid from Calcium Folinate) 800 mcg.	200%
Daily Value (DV)	

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: B130 Dosage: 1 capsule qd

> folate article (3-3) folic acid monograph product data sheet

Folacal®

Folinic acid – bioactive folate for healthy DNA and RNA synthesis

Administration of folinic acid bypasses the deconjugation and reduction steps required of folic acid to become this bioactive form of folate. Folinic acid is a more metabolically active form of folate, capable of boosting levels of the coenzyme forms of the vitamin in circumstances where folic acid has little to no effect. Another benefit of folinic acid is that it is the folate intermediary responsible for proper DNA and RNA synthesis. Thorne supplies 800 mcg of folinic acid in each capsule of Folacal.

other products to see: 5-MTHF

gingival support oncology support vitamin B

Folic Acid Liquid

Supplement Serving Size: One Drop	t Facts	
Each Drop Contains:		% DV
Folic Acid	200 mcg.	50%
Daily Value (DV)		

Other Ingredients: Distilled water, sodium ascorbate.

2 Fluid Ounces (60 mL) Code: B123 Dosage: 4 drops in water

product data sheet

Folic Acid Liquid

200 mcg of folic acid per drop

Studies show folic acid can increase the resistance of the gingiva to local irritants and lead to a reduction in inflammation. The most effective manner of application appears to be to rinse for one minute twice daily with 5 mg folate per 5 mL of water. The effect of folate on gingival health appears to be moderated largely, if not totally, through a local influence. Thorne's Folic Acid Liquid allows for easy use in mouthwash preparations, and serves as a convenient option for patients who have difficulty swallowing capsules. Thorne's Folic Acid Liquid supplies 200 mcg of folic acid in each drop.

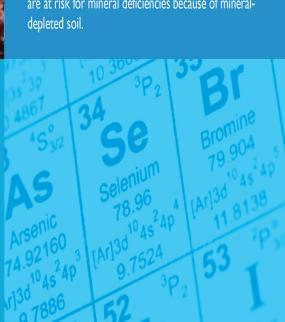


calcium and magnesium; the essentials



electrolyte balance

involved in over 300 enzymatic processes



Individuals at high risk for mineral deficiencies include the elderly due to hypochlorhydria and subsequent malabsorption, children and teenagers because of poor diet, individuals with eating disorders, and those suffering from chronic diseases such as diabetes or inflammatory bowel disease. Certain medications can also result in mineral deficiencies. The amount of minerals in fruits and vegetables depends on the soil they are grown in. Therefore, even healthy individuals who maintain a good diet are at risk for mineral deficiencies because of mineral-

Calcium and Magnesium; the essentials

Anthropological evidence indicates humans were high consumers of calcium until the onset of the Agricultural Age, 10,000 years ago. Current calcium intake is one-quarter to one-third that of our evolutionary diet, indicating we may not be consuming enough dietary calcium.

Meta-analyses of calcium and bone mass studies demonstrate supplementation of 500 to 1500 mg of a well-absorbed form of calcium daily can improve bone mass in adolescents, young adults, older men, and postmenopausal women. In addition to osteoporosis, conditions associated with calcium deficiency that may benefit from supplementation include hypertension, premenstrual syndrome, muscle spasms, and colon cancer.

Magnesium, the second most abundant intracellular cation, is present in all cells of the body and is involved in over 300 enzymatic processes, including ATP production. It is essential for maintaining bone density, normal cardiac rhythmicity, pulmonary function, and blood glucose regulation. This latter function is particularly of note since diabetics are commonly deficient in this important mineral. Other functions requiring magnesium include nerve conduction, methyl-group transfer, conversion of pyridoxine to P5P (the active form of vitamin B6), oxidative phosphorylation, and muscle contraction. Magnesium supplementation appears to significantly increase bone density and reduce the incidence of fracture.

The appropriate intake ratio of calcium to magnesium is controversial, with some authors supporting a 2:1 ratio and others recommending a 1:1 ratio. Thorne offers several formulas with varying ratios to meet the individual needs of your patients.

Calcium Citramate™

the best-absorbed form of calcium on the market

Calcium bound to citric acid and malic acid (citrate-malate) demonstrates six times the solubility of either citrate or malate alone. Several studies have shown increased absorption of calcium from citrate-malate compared to carbonate (37 - 55-percent greater absorption in one study). It is the only form of calcium found to actually increase bone density when supplemented alone (without vitamin D, vitamin K, or other bone-building nutrients).

Several studies have indicated even relatively low doses of this wellabsorbed calcium chelate to be effective. One study of 11- and 12-year-old females given 500 mg calcium (as citrate-malate) or placebo for 18 months found the calcium group had significantly greater gains in lumbar spine bone mineral density and total body bone mineral density, and had gained an average of 24 grams of bone per year - the equivalent of an additional 1.3 percent of the skeleton each year. Other studies have found similar results, particularly in prepubescent girls, indicating it is important to start "banking" bone early.

bone support minerals

Calcium Citramate™

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
	% DV	
160 mg.	16%	
265 mg.	*	
	ntainer: 90 160 mg.	

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

90 Vegetarian Capsules Code: M270 Dosage: 1 to 2 capsules tid

calcium article (4-2) calcium monograph product data sheet

Calcium Citrate

calcium bound to kidney-protective citrate

Calcium bound to citric acid is another well-absorbed form of calcium. Citric acid is a naturally occurring tricarboxylic acid that is able to bind efficiently three mineral molecules for every one of its molecules. Studies have shown significantly more calcium is absorbed from calcium citrate than from calcium carbonate. One study found achlorhydric patients absorb an average of 10 times more calcium from citrate than from carbonate.

Supplementation with calcium citrate reduces the risk of calcium oxalate stone formation. A trial of 800 mg calcium (as citrate) lead to increased urinary citrate and reduced calcium oxalate production, decreasing risk of oxalate stone formation.

bone support kidney support minerals

Calcium Citrate

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV 150 mg. Calcium (as Calcium Citrate)

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, Silicon Dioxide,

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Dosage: 1 to 2 capsules tid Thorne Research mineral and trace mineral products —

calcium monograph product data sheet

[†]A hypoallergenic ingredient used to fill space.

bone support minerals

Cal-Mag Citramate™

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
Each Capsule Contains:		% DV
Calcium (as Calcium Citrate-Malate) Magnesium (as Magnesium Citrate-Malat	80 mg. e) 80 mg.	8% 20%
Malic Acid (approximately from Calcium- Magnesium Citrate-Malate)	240 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M271 Dosage: 1 to 3 capsules tid

> also available 240 Vegetarian Capsules Code: M273

> > calcium monograph magnesium monograph product data sheet

> > > bone support minerals

Calcium-Magnesium Citrate

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

 $^{\dagger}\!\text{A}$ hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M218 Dosage: 1 to 3 capsules tid

> calcium monograph magnesium monograph product data sheet

Calcium-Magnesium Citramate™ calcium and magnesium as the superior citratemalate chelates

Cal-Mag Citramate provides a 1:1 ratio of calcium and magnesium as the well-absorbed citrate-malate chelate. Magnesium and calcium appear to work in tandem in the body, with both necessary for many functions, including maintaining normal blood pressure and preventing muscle spasms and dysmenorrhea. In addition to calcium, magnesium is essential for helping maintain bone density. Magnesium depletion impairs mineral homeostasis by reducing skeletal and renal sensitivity to parathyroid hormone and by reducing the activation of vitamin D.

Calcium-Magnesium Citrate important macromineral partners

While calcium and magnesium are essential minerals for many functions in the body, citric acid (citrate) has significant health benefits of its own. Citric acid is an essential Kreb's cycle intermediate that is necessary for energy production. Urinary levels tend to decrease with age, putting individuals at more risk for development of urinary calculi.

Citric acid is thought to promote GI absorption by opening up epithelial tight junctions, thus enhancing the paracellular shunt pathway of calcium transport. Cal-Mag Citrate provides calcium and magnesium in a 1:1 ratio for improved uptake of calcium in the bone; magnesium helps prevent its deposition in the soft tissues.

- → additional benefits of vitamin C in an easy-to-use powder form
- → effervesces when mixed with water
- → provides a high dose of calcium without all the capsules for better patient compliance

Cal-Mag Citrate Effervescent Powder for easy, high-dose cal-mag supplementation

The effervescent quality of citric acid coupled with its high dissociation constant greatly increase the bioavailability of citrate mineral chelates. Cal-Mag Citrate Effervescent Powder provides 500 mg calcium and 200 mg magnesium per scoop. This ratio is especially desirable for individuals who need a high dose of calcium but who, because of its laxative nature, cannot tolerate equal amounts of magnesium. One scoop also provides 500 mg of vitamin C and 500 mg of the amino acid glycine.

Place the desired dosage into a small amount of water and allow it to effervesce. Once it has stopped bubbling, the solution can be consumed or mixed with juice. The resultant calcium and magnesium chelates include citrates, ascorbates, and glycinates.

bone support minerals

Cal-Mag Citrate (Effervescent)

Supplement Fac Serving Size: One ScoopServings Per Contain		
Each (5.2 g) Scoop Contains:		% DV
Vitamin C (as Ascorbic Acid)	500 mg.	833%
Calcium (Citrate / Ascorbate reacted from	1	
Calcium Carbonate and		
Citric / Ascorbic Acid)	500 mg.	50%
Magnesium (Citrate / Ascorbate reacted from Magnesium Oxide and		
Citric / Ascorbic Acid)	200 mg.	50%
Glycine	500 mg.	*
*Daily Value (DV) not established.		

NET WT. 8 OZ. (227 G) Code: M222 Dosage: 1/2 to 1 scoop qd - bid

> calcium monograph magnesium monograph product data sheet

Magnesium Aspartate for improved energy

Aspartic acid (aspartate) is essential for energy production in the Kreb's cycle. Low citrate, identified on a urinary organic acid analysis, can be corrected by supplementation with aspartate. Clinical reports indicate aspartate chelates can be beneficial for patients who suffer from fatigue, most likely because of the involvement of aspartate in energy production on a cellular level. In light of the fact that magnesium is a common nutrient deficiency in sufferer's of chronic fatigue (47% in one study were deficient), Magnesium Aspartate might be the preferred choice for magnesium supplementation in this population.

minerals

Magnesium Aspartate

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Magnesium (as Magnesium Aspartate) 90 mg. 22.5% Daily Value: (DV)

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M213 Dosage: 1 to 3 capsules tid horne Research mineral and trace mineral products —

magnesium monograph product data sheet

The Thorne Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide is of a technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

- ightarrow magnesium is a common deficiency in the American diet
- magnesium can benefit patients with fatigue, arrhythmia,
 blood glucose irregularity, and poor pulmonary function

kidney support urinary tract support minerals

Magnesium Citrate

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
Each Capsule Contains:		% DV
Magnesium (as Magnesium Citrate)	140 mg.	35%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

90 Vegetarian Capsules Code: M234 Dosage: 1 to 3 capsules tid

> magnesium monograph product data sheet

minerals

Magnesium Citramate™

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
Each Capsule Contains:		% DV
Magnesium (as Magnesium Citrate-Malate)	150 mg.	37.5%
Malic Acid (approximately from Magnesium Citrate-Malate)	300 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M272 Dosage: 1 to 2 capsules tid

> magnesium monograph product data sheet

Magnesium Citrate

a well-absorbed form of magnesium

A study comparing the bioavailability of magnesium citrate with magnesium oxide (a form found in many poorly absorbed mineral products) found significantly greater absorption of magnesium citrate than magnesium oxide in healthy volunteers. The same researchers examined solubility and found magnesium citrate to be 55-percent soluble in water; whereas, magnesium oxide was virtually insoluble. The more water-soluble a mineral chelate is, the more absorbable it is.

Magnesium has been found to decrease the precipitation of calcium oxalate and calcium phosphate in the urine, thus preventing the formation of kidney stones. Supplementation of magnesium has been shown to prevent the recurrence of kidney stones. Citric acid also has the capacity to inhibit urinary calcium oxalate and phosphate crystals. Thus, the combination of magnesium with citrate in our Magnesium Citrate offers an attractive combination for this patient population – about 10 percent of men will experience a kidney stone at some time during their lifetime.

Magnesium Citramate™

with malic acid for support of individuals with fibromyalgia

Magnesium Citramate provides magnesium bound to citrate-malate for superior absorption. Each capsule of magnesium citrate-malate contains 300 mg of malic acid in addition to 150 mg of magnesium. Both magnesium and malic acid have been found to provide relief for individuals with fibromyalgia. A study of 24 patients with fibromyalgia found malic acid along with 300 mg magnesium (equivalent to 2 capsules of Magnesium Citramate) twice daily reduced severity of fibromyalgia measured by three measurements of pain and tenderness.

[†]A hypoallergenic ingredient used to fill space.

Potassium is an important intracellular cation. Approximately 98 percent of the body stores of potassium are within the cell. It is the ratio of intracellular to extracellular potassium that determines muscle cell excitability. Thus, potassium plays an essential role in functioning of not only skeletal muscle, but also the heart muscle. It is essential for nerve impulse transmission, muscle contractility, blood pressure maintenance, energy production, and nucleic acid synthesis. Epidemiological evidence suggests diets high in potassium may protect against cardiovascular disease, high blood pressure, and stroke.

Potassium deficiency can occur if large amounts are lost via the digestive system or urinary tract. Prolonged use of non-potassium sparing diuretics are a major cause of potassium loss via the kidneys. Conditions associated with potassium deficiency include diabetic ketoacidosis and hyperaldosteronism. Individuals with eating disorders, such as bulimia or anorexia nervosa, are also at significant risk for potassium deficiency. Low potassium can be a life-threatening condition, resulting in weakness, fatigue, metabolic alkalosis, and cardiac arrhythmias.

Potassium Citrate

a highly-absorbable form of potassium

Potassium citrate can be used to alkalinize the urine in individuals with UTIs. This results in symptomatic improvement, including pain relief. In addition, certain herbs such as goldenseal and *uva ursi* (ingredients in Uristatin) contain antibacterial constituents that work most effectively in an alkaline urine. Like magnesium citrate and calcium citrate, potassium citrate has also been shown to decrease crystal formation in the urine – so can be considered for prevention of stones in the urinary tract.

kidney support urinary tract support minerals

Potassium Citrate

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Potassium (as Potassium Citrate) 99 mg. 2.9% Daily Value (DV)

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M240 Dosage: 1 to 3 capsules tid

potassium monograph product data sheet

Drug-Nutrient/Botanical Interactions of Potassium

Medications that induce potassium depletion include aspirin, bisacodyl, choline magnesium trisalicylate, colchicine, corticosteroids, non-potassium sparing diuretics (such as thiazide diuretics), laxatives, and sodium bicarbonate. The botanical *Glycyrrhiza glabra* may also result in potassium loss. While it more commonly occurs with long-term use of more than 1 g glycyrrhizin daily, some people experience signs of potassium loss with lower doses.

ACE inhibitors (captopril, enalapril, ramipril, etc.) produce potassium retention by inhibiting aldosterone. Potassium supplementation with ACE inhibitors and potassium-sparing diuretics (spironolactone, amilroide, triamterene, etc.) should be approached with caution to prevent hyperkalemia.

Electrolyte balance is a critical issue in managing comorbid conditions in both diseased and elderly patients. Patients with hypertension and diabetes need careful regulation of their calcium and magnesium levels, whereas in patients with congestive heart failure, sodium and potassium levels also are critical. Issues such as renal magnesium clearance, arrhythmic risk, ion balance in heart failure, diabetes, ischemic stress, oxidative stress in the cardiomyopathy of magnesium deficiency, roles of magnesium and potassium in bone metabolism and the aging population, and hypertension, all have links to electrolyte balance. Maintaining homeostasis of potassium and magnesium is critical especially in the treatment of patients with cardiovascular disease and progressive heart failure.

Potassium-Magnesium Citrate and Potassium-Magnesium Aspartate for improved cellular function

Both potassium and magnesium are essential for maintaining normal muscle contractility, blood pressure, and nerve conduction. Both Potassium-Magnesium Citrate and Potassium-Magnesium Aspartate offer these two important intracellular cations in one capsule. In addition, citrate chelates can benefit individuals with a propensity for kidney stones, while aspartate chelates may provide relief of fatigue.

Tri-Spartate®

three important macrominerals in one capsule

Tri-Spartate combines calcium, magnesium, and potassium aspartates in one capsule. Each of these minerals alone provides significant benefit for conditions ranging from muscle spasms to hypertension. Combining all three assures your patients are receiving each in a well-balanced ratio.

electrolyte balance minerals

Potassium-Magnesium Citrate

Supplement Facts Serving Size: One Capsule Servings Per Container: 90 Each Capsule Contains: Magnesium (as Magnesium Citrate) 70 mg. 17.5% Potassium (as Potassium Citrate) 99 mg. 2.9%

Other Ingredients: Hypromellose (derived from cellulose) capsule. May contain one or more of the following hypoallergenic ingredients to fill space – Leucine, Silicon Dioxide.

90 Vegetarian Capsules Code: M241 Dosage: 1 to 3 capsules tid

> potassium monograph magnesium monograph product data sheet

Potassium-Magnesium Aspartate

Supplement F Serving Size: One Capsule Servin	Facts	
Each Capsule Contains:		
Magnesium (as Magnesium Aspartate)	70 mg.	17.5%
Potassium (as Potassium Aspartate)	99 mg.	2.9%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule. May contain one or more of the following hypoallergenic ingredients to fill space – Leucine, Silicon Dioxide.

90 Vegetarian Capsules Code: M216 Dosage: 1 to 3 capsules tid

product data sheet

Tri-Spartate®

Supplement Facts Serving Size: One Capsule Servings Per Container: 60			
Each Capsule Contains:			
Calcium (as Calcium Aspartate)	100 mg.	10%	
Magnesium (as Magnesium Aspartate)	90 mg.	22.5%	
Potassium (as Potassium Aspartate)	30 mg.	0.86%	
Daily Value (DV)			

Other Ingredients: Hypromellose (derived from cellulose) capsule. May contain one or more of the following hypoallergenic ingredients to fill space – Leucine, Silicon Dioxide.

60 Vegetarian Capsules
Code: M203
Dosage: 1 to 3 capsules tid

product data sheet

Multiple Mineral Formulas

Individuals at high risk for mineral deficiencies include the elderly due to hypochlorhydria and subsequent malabsorption, children and teenagers because of poor diet, individuals with eating disorders, and those suffering from chronic diseases such as diabetes or inflammatory bowel disease. Certain medications can also result in mineral deficiencies. The amount of minerals in fruits and vegetables depends on the soil they are grown in. Therefore, even healthy individuals who maintain a good diet are at risk for mineral deficiencies because of mineral-depleted soil.

Thorne's individual minerals are chelated to amino acids or organic acids via an exothermic reaction that provides a predictable, high quality, hypoallergenic chelate.

Biomins®

aspartate chelates for improved energy

Biomins contains a full compliment of both macrominerals (calcium, magnesium, and potassium; minerals found in large amounts in the body) and trace minerals, including copper and iron. Aspartic acid (aspartate) is essential for energy production in the Kreb's cycle. Clinical reports indicate aspartate chelates can be beneficial for patients who suffer from fatigue, most likely because of the involvement of aspartate in energy production on a cellular level.

Biomin II®

without copper and iron

Biomin II offers a multiple mineral without iron and copper. Both copper and iron can act as pro-oxidants in certain situations so many practitioners prefer to have an option of a multiple formula without these minerals (see Citramin II for more info).

other products to see: Citramins, Citramin II

minerals

Biomins®

Three Capsules Contain:		% DV
Calcium (as Calcium Aspartate)	300 mg.	30%
Iron (as Iron Aspartate)	15 mg.	83%
lodine (as Potassium lodide)	120 mcg.	80%
Magnesium (as Magnesium Aspartate)	270 mg.	67.5%
Zinc (as Zinc Aspartate)	21 mg.	1409
Selenium (as Selenium Aspartate)	150 mcg.	214%
Copper (as Copper Aspartate)	0.9 mg.	45%
Manganese (as Manganese Aspartate)	6 mg.	3009
Chromium (as Chromium Aspartate)	200 mcg.	167%
Molybdenum (as Molybdenum Aspartate)	90 mcg.	120%
Potassium (as Potassium Aspartate)	90 mg.	2.5%
Boron (as Boron Aspartate)	3 mg.	*
Vanadium (as Vanadium Aspartate)	90 mcg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

90 Vegetarian Capsules Code: M201 Dosage: 1 capsule tid

product data sheet

Biomin II®

Supplement Facts Serving Size: Three CapsulesServings Per Container: 30

Three Capsules Contain: % DV Calcium (as Calcium Aspartate) 300 mg. 30% lodine (as Potassium lodide) 120 mcg. 80% Magnesium (as Magnesium Aspartate) 270 mg. 67.5% Zinc (as Zinc Aspartate) 21 mg. 140% Selenium (as Selenium Aspartate) 150 mcg. 214% Manganese (as Manganese Aspartate) 6 mg. 300% Chromium (as Chromium Aspartate) 200 mcg. 167% Molybdenum (as Molybdenum Aspartate) 90 mcg. 120% 2.5% Potassium (as Potassium Aspartate) 90 mg. Boron (as Boron Aspartate) 3 mg. Vanadium (as Vanadium Aspartate) 90 mcg. *Daily Value (DV) not established.

Other Ingredients: Hypromellose (derived from cellulose) capsule. Leucine.† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M202 Dosage: 1 capsule tid

product data sheet

The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

[†]A hypoallergenic ingredient used to fill space.



minerals

Citramins®

Supplement Facts Serving Size: Three CapsulesServings Per Container: 30 Three Capsules Contain: % DV Calcium (as Calcium Citrate) 300 mg. 30% 15 mg. Iron (as Iron Citrate) 83% lodine (as Potassium Iodide) 120 mcg. 80% Magnesium (as Magnesium Citrate) 270 mg. 67.5% Zinc (as Zinc Citrate) 140% 21 mg. Selenium (as Selenium Citrate) 150 mcg. 214% 0.9 mg. Copper (as Copper Citrate) 45% Manganese (as Manganese Citrate) 6 mg. 300% Chromium (as Chromium Citrate) 200 mcg. 167% Molybdenum (as Molybdenum Citrate) 90 mcg. 120% 2.6% Potassium (as Potassium Citrate) 90 mg. Boron (as Boron Citrate) 3 mg. Vanadium (as Vanadium Citrate) 90 mcg. *Daily Value (DV) not established.

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M249 Dosage: 1 capsule tid

product data sheet

Citramin II®

Supplement Facts Serving Size: Three CapsulesServings Per Container: 30

Three Capsules Contain:		% DV
Calcium (as Calcium Citrate)	300 mg.	30%
lodine (as Potassium Iodide)	120 mcg.	80%
Magnesium (as Magnesium Citrate)	270 mg.	67.5%
Zinc (as Zinc Citrate)	21 mg.	140%
Selenium (as Selenium Citrate)	150 mcg.	214%
Manganese (as Manganese Citrate)	6 mg.	300%
Chromium (as Chromium Citrate)	200 mcg.	167%
Molybdenum (as Molybdenum Citrate)	90 mcg.	120%
Potassium (as Potassium Citrate)	90 mg.	2.6%
Boron (as Boron Citrate)	3 mg.	*
Vanadium (as Vanadium Citrate)	90 mcg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M250 Dosage: 1 capsule tid

product data sheet



Citramins®

highly absorbable citrate chelates

Citramins contains all the essential minerals, including copper and iron, bound to citric acid. Besides providing a well-absorbed chelate, citric acid has potential health benefits of its own. As an important Kreb's cycle intermediate (in fact it is also called the citric acid cycle), it is essential for metabolism in all living organisms. Citric acid has been shown to inhibit urinary precipitation of calcium oxalate and phosphate crystals, preventing the formation of kidney stones. Since magnesium, calcium, and potassium also have that potential, the combination of all four in one supplement provides added benefit.

Citramin II® without copper and iron

Citramin II contains the same full array of macrominerals and trace minerals as Citramins, but without copper and iron. There are individuals who do not need iron, including women who are no longer menstruating and men. Individuals at low risk for an iron deficiency often do not need supplemental iron unless they have a chronic disease that renders them iron deficient. This can be easily determined by a CBC and a blood chemistry panel to check serum ferritin levels. While copper is an essential cofactor for many enzymes in the body, there are individuals who have developed copper toxicity due to disease processes or external exposure to copper (e.g., copper pipes). Therefore, Citramin II provides a highly-absorbable citrate chelate formula without these two minerals.

other products to see: Biomins, Biomin II

Research on trace minerals is ongoing; their importance in human health is continuing to be elucidated. They are cofactors for most enzymes in the body and are essential for proper hormone and neurotransmitter function. Deficiencies of specific trace minerals are associated with many chronic diseases, including cardiovascular disease, insulin resistance, diabetes, immune deficiency, infertility, osteoporosis, neurodegenerative diseases, and anemia – to name just a few. Even mild deficiencies can result in poor growth and development. We get many of our dietary trace minerals from fruits and vegetables. However, mineral depletion of the soil has rendered much of the produce we buy deficient in these essential nutrients; thus, supplementation may be indicated.

Trace Minerals citrate chelates

Trace Minerals combines citrate-bound minerals in a well-balanced trace mineral formula. As an important Kreb's cycle intermediate, citrate is essential for metabolism in all living organisms. Like picolinates, citrate-bound trace minerals are well absorbed and utilized by the body. For individuals with a tendency to form kidney stones, the citric acid in this formula is particularly indicated, as citrate prevents the precipitation of calcium oxalate and phosphate in the urine.

Pic-Mins®

for superior absorption

In 1984, Thorne was the first to introduce zinc picolinate, and is still the exclusive manufacturer of the trace mineral picolinates – iron, copper, selenium, molybdenum, boron, and vanadium.

Picolinic acid is a natural organic acid that is produced in the body by conversion of the amino acid tryptophan. Found in high concentrations in breast milk, it helps in mineral absorption by the infant. Studies indicate mineral picolinates provide superior absorption, even when compared to other "well-absorbed" mineral chelates. Pic-Mins combines the important trace minerals zinc, selenium, manganese, molybdenum, boron, and vanadium with UltraChrome, Thorne's patented highly bioavailable chromium complex.

other products to see: any of the individual trace minerals on the following pages

minerals

Trace Minerals

Each Capsule Contains:		% DV
Zinc (as Zinc Citrate)	15 mg.	1009
Selenium (as Selenium Citrate)	100 mcg.	1439
Manganese (as Manganese Citrate)	2.5 mg.	1259
Chromium (as Chromium Citrate)	100 mcg.	839
Molybdenum (as Molybdenum Citrate)	50 mcg.	679
Boron (as Boron Citrate)	700 mcg.	*
Vanadium (as Vanadium Citrate)	50 mcg.	*

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

90 Vegetarian Capsules Code: M242 Dosage: 1 capsule tid

product data sheet

Pic-Mins®

Supplement Facts Serving Size: One CapsuleServings Per Container: 90

Each Capsule Contains:		% DV
Zinc (as Zinc Picolinate)	15 mg.	100%
Selenium (as Selenium Picolinate)	100 mcg.	143%
Manganese (as Manganese Picolinate)	2.5 mg.	125%
Chromium (as UltraChrome®)	100 mcg.	83%
Molybdenum (as Molybdenum Picolinate)	50 mcg.	67%
Boron (as Boron Picolinate)	700 mcg.	*
Vanadium (as Vanadium Picolinate)	50 mcg.	*
*Naily Value (DV) not established		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M243 Dosage: 1 capsule tid

product data sheet

The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

[†]A hypoallergenic ingredient used to fill space.

Each Capsule Contains:

bone support women's health minerals

Boron Picolinate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 % DV Boron (as Boron Picolinate) *Daily Value (DV) not established.

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M264 Dosage: 1 capsule tid

> boron article (2-1) boron monograph product data sheet

Boron Picolinate

an important bone-protective trace mineral

Recent data from animal and human studies suggest boron may be important for mineral metabolism, brain function and performance, hormone regulation, and prevention of osteoporosis and osteoarthritis. Boron is necessary for steroid hormone metabolism in humans, affecting the levels of estrogens and testosterone, possibly by facilitating hydroxylation reactions or by protecting steroid hormones from degradation. Boron appears to have anti-inflammatory activity, including inhibition of leukotriene synthesis, reduction of reactive oxygen species, and suppression of an over-active antibody expression.

Boron deficiency impacts mineral metabolism, cognitive function, steroid hormone and vitamin levels, and bone integrity. Clinical evidence suggests a role for boron in treatment protocols for osteoporosis, osteoarthritis, and rheumatoid arthritis. Tissue homeostasis is maintained by the rapid elimination of excess boron, primarily in the urine.

other products to see: Oscap, Oscap Plus, AR-Encap

minerals

Copper Picolinate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60		
Each Capsule Contains:		% DV
Copper (as Copper Picolinate)	2 mg.	100%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

search mineral and trace mineral products - page 50

60 Vegetarian Capsules Code: M257 Dosage: 1 capsule qd - tid

product data sheet

Copper Picolinate

a well-absorbed form of this important trace mineral

Copper is an essential trace mineral for humans. Conditions associated with a copper deficiency include anemia, osteoporosis, low neutrophil counts, impaired glucose tolerance, arthritis, high cholesterol, cardiovascular disease (with a tendency toward vessel weakness or aneurysms), arrhythmias, neurological problems, and decreased skin pigmentation. Because copper and zinc compete with each other for absorption, high doses of zinc (50 mg daily for extended time periods) without copper can result in copper deficiency.

Although copper can have pro-oxidant capabilities, it also demonstrates antioxidant properties. It is a cofactor for the essential endogenous antioxidants superoxide dismutase and ceruloplasmin. A deficiency of copper can render many cell types, including lipids and lymphocytes, more susceptible to oxidation. In a clinical setting, copper supplementation was shown to protect red blood cells from oxidation.

Chromium is an essential nutrient for human life and is widely distributed in small quantities in foods; however, refining (e.g., making flour or sugar) depletes foods of chromium. Metabolic stress (such as experienced by trauma patients), strenuous exercise, and pregnancy can all increase chromium needs. Studies suggest inadequate dietary chromium intake may produce insulin insensitivity, abnormal fasting blood glucose (too low or too high), and reduced sperm count.

Chromium potentiates insulin by facilitating receptor binding, thereby stabilizing blood glucose levels. Clinical conditions that might benefit from chromium supplementation include insulin resistance, diabetes, hypoglycemia, obesity, and hyperlipidemia.

Chromium Picolinate

an essential mineral for carbohydrate metabolism

Chromium in the form of picolinate has been widely studied for glycemic control and other metabolic derangements associated with insulin resistance. A review of clinical studies found 13 of 15 trials yielded significant improvement in at least one parameter of glucose control – including decreased blood glucose, normalization of hemoglobin A1C (a sign of long-term control), lower insulin levels in hyperinsulinemia, and improved lipid profiles. Decreases in carbohydrate cravings have also been noted. Recent evidence suggests chromium picolinate may have an antidepressant effect, particularly in individuals with abnormal carbohydrate metabolism. Other studies have shown chromium picolinate attenuates drug-induced insulin resistance in HIV patients, increases lean-body mass in obese patients, and enhances the effect of other weight-loss strategies.

Picolinic acid is a natural mineral chelator produced in the body. Picolinic acid is produced from the amino acid tryptophan in the liver and kidneys and is transported to the pancreas. During digestion, it is secreted from the pancreas into the intestine. It has been found in high concentrations in human milk, whereas cow milk has very little. The theory is that this may enhance absorption of minerals in breast-fed infants.

other products to see: UltraChrome, Diabenil, Vanoxyl

carbohydrate metabolism minerals

Chromium Picolinate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Chromium (as Chromium Picolinate) 500 mcg. 417%

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M255 Dosage: 1 capsule qd - bid

chromium article (7-3) chromium monograph product data sheet

→ patented chromium complex

- → shown to provide the highest tissue levels
- → available only from Thorne Research

carbohydrate metabolism lipid metabolism support minerals

UltraChrome 500®

Supplement Fa Serving Size: One CapsuleServings Per		
Each Capsule Contains:		% DV
Chromium (as UltraChrome®)	500 mcg.	417%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M276 Dosage: 1 capsule qd - bid

product data sheet

UltraChrome 200®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Chromium (as UltraChrome®) 200 mcg. 167% Daily Value (DV)

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M274 Dosage: 1 capsule qd - tid

product data sheet

UltraChrome-500®

Thorne's patented chromium complex

The beneficial effects of chromium picolinate (see Chromium Picolinate) compared to other common chromium chelates on the market are thought to be due to its superior absorption. UltraChrome is Thorne's patented chromium product, consisting of chromium arginate and chromium 4-oxopyridine, 2,6-dicarboxylate. Compared to other chromium compounds including chromium picolinate, this combination of chromium chelates appears to have the highest bioavailability.

In an *in vitro* study testing glucose uptake by adipocytes, chromium 4-oxopyridine, 2,6-dicarboxylate was shown to have the highest tissue levels and biopotency. Chromium arginate was the most effective at mimicking the action of insulin at the cellular level. See biopotency comparison chart below.

UltraChrome-200®

a lower dose of this unique chromium complex

Although much of the research on chromium has examined higher dosages, in the range of 500 mcg twice daily, we also offer UltraChrome in a 200-mcg per capsule dose. Situations that might warrant a lower dose include use in pediatrics, pregnancy, borderline blood sugar abnormalities, or in conjunction with other supplements that might contain chromium.

other products to see: Chromium Picolinate, Diabenil, Vanoxyl

Compound Tested	Adipocyte Biopotency Index
Chromium Chloride	1.03
Chromium Picolinate	1.01
Chromate® (niacin bound)	0.96
Nichrome (chromium polynicotinate)	1.04
Chromium Arginate	1.18
Chromium (4-oxopyridine, 2,6-dicarboxylate)	3.06

To determine the iron status of persons in the United States, the Centers for Disease Control (CDC) calculated the prevalence of iron deficiency and iron deficiency anemia from data collected from the 1999-2000 National Health and Nutrition Examination Survey (NHANES). They collected data from physical exams and household interviews within a sample of the U.S. civilian, non-institutionalized population. The prevalence of iron deficiency was greatest among toddlers ages 1-2 years (7%) and menstruating adolescent and adult females ages 12-49 years (9-16%).

Most of the body's iron is found in the iron porphyrin complex of hemoglobin, the oxygen-carrying molecule in red blood cells. Smaller amounts are found in the tissues as myoglobin and as cofactors for many enzymes. Because of its central role in the hemoglobin molecule, iron is essential for formation of red blood cells. A deficiency results in microcytic anemia, which is the most common type of anemia.

Symptoms of an iron deficiency include weakness, fatigue, shortness of breath on exertion, dizziness, headache, tinnitus, spots before the eyes, drowsiness, irritability, amenorrhea, and loss of libido. A craving for dirt can accompany severe iron deficiency. An iron or folate deficiency should always be ruled out in cases of restless legs syndrome.

Iron Picolinate

for enhanced iron absorption without GI side effects

What is picolinic acid? Picolinic acid is a metabolite of tryptophan, similar to niacin. It is naturally produced in the pancreas and binds to minerals to facilitate their absorption.

Conventional iron supplementation, including forms such as ferrous sulfate, can often cause GI side effects, including nausea, vomiting, constipation, diarrhea, and dark-colored stools. That is because they are poorly absorbed; therefore, most of the iron remains in the intestines and is eliminated. Iron Picolinate provides 30 mg elemental iron per capsule reacted with picolinic acid for superior absorption in the GI tract, thus preventing the typical GI side effects.

other products to see: Ferrasorb, Iron Citrate

hematinics minerals

Iron Picolinate

Supplement F Serving Size: One CapsuleServings Pe		
Each Capsule Contains:		% DV
Iron (as Iron Picolinate)	25 mg.	139%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M258 Dosage: 1 to 3 capsules qd

restless legs syndrome article (12-2) product data sheet

hematinics minerals

Iron Citrate

Supplement Facts Serving Size: One ConsuleServings Pay Container: 6

Each Capsule Contains:		% DV
Iron (as Iron Citrate)	25 mg.	139%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M238 Dosage: 1 to 3 capsules qd

restless legs syndrome article (12-2) product data sheet

Iron Citrate

a well-absorbed iron chelate

Citric acid is an organic acid produced naturally in the body during the Kreb's cycle production of ATP. Since citrate is essential for energy production and many people who are anemic suffer from low energy, Iron Citrate provides an attractive choice for the practitioner. Supplementation of iron to increase red blood cell counts and replace iron stores (determined by serum ferritin levels) typically requires 60-100 mg iron daily for 3-6 months.

hematinics minerals

Ferrasorb®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Folate (200 mcg as Calcium Folinate and 200 mcg as 5-Methyl-tetrahydrofolate) 400 mcg. 100% Vitamin B12 (150 mcg as Adenosylcobalamin and 150 mcg as Methylcobalamin) 300 mcg. 5000% Iron (as Iron Picolinate) 25 mg. 139%

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF750 Dosage: 1 to 3 capsules qd

folate article (3-3) B12 article (2-6) 5-methyl-tetrahydrofolate monograph methylcobalamin monograph product data sheet

Ferrasorb®

a complete blood-building formula

Microcytic anemia is related to an iron deficiency, whereas, macrocytic anema is associated with deficiencies of folate and/or vitamin B12. Despite these diverging diagnoses, studies indicate using a combination of folate, B12, and iron is superior to any one nutrient alone. Each of these nutrients is dependent upon the other for proper red blood cell formation. Ferrasorb combines the two active forms of vitamin B12 and folate, adenosyland methylcobalamin and folinic acid and 5-methyl-tetrahydrofolate, respectively, with well-absorbed iron picolinate – for a superior blood-building (hematinic) formula.

Individuals who might benefit from a hematinic formula include those with a greater need for iron, individuals who tend to lose iron chronically, and those who are not absorbing it well – teenage girls, pregnant women, women of childbearing age (particularly if they have heavy menses), individuals with malabsorption syndromes (Crohn's disease or Celiac disease), elderly patients with low hydrochloric acid secretion, and individuals with renal failure.

other products to see: Iron Picolinate, Iron Citrate

- → key nutrients for thyroid support
- → beneficial in treatment of fatigue



lodine & Tyrosine

essential mineral and amino acid support for the thyroid gland

lodine deficiency is well accepted as the most commonly preventable cause of mental retardation in the world and the most common cause of endocrinopathy (goiter and primary hypothyroidism). lodine deficiency is most critical in pregnancy due to the consequences for neurological damage during stages of fetal development and lactation. The safety of therapeutic doses of iodine above the established safe range of 1.0 mg may be evident in the lack of obvious toxicity in the Japanese population that consumes 25 times the median intake of iodine consumption of the United States. The Japanese population suffers no demonstrable increased incidence of autoimmune thyroiditis or hypothyroidism. Studies using 3- to 6-mg doses to effectively treat fibrocystic breast disease may reveal an important role for iodine in maintaining normal breast tissue architecture and function. lodine may also have important antioxidant functions in breast tissue and other tissues that concentrate iodine via the sodium iodide symporter.

L-tyrosine is an amino acid necessary for the synthesis of thyroxine (T4) and triiodothyronine (T3). In the process of thyroid hormone synthesis, iodine binds to two positions on the tyrosyl ring of tyrosine. Thus, a deficiency of this important amino acid could contribute to low thyroid hormone levels. Studies have found tyrosine may be beneficial for treating fatigue, a common symptom of low thyroid. Iodine is necessary for the formation of T4, but appears to have no affect on peripheral conversion of T4 to T3.

Goitrogenic foods can cause a relative iodine deficiency by binding to iodine, making it inaccessible for thyroid hormone synthesis. Cooking these foods tends to make them less goitrogenic. Common goitrogenic foods include broccoli, cauliflower, cabbage, Brussels sprouts, kale, soy, peanuts and pine nuts, turnips, and rutabaga.

other products to see: Thyrocsin, L-Tyrosine

neuroendocrine support thyroid support minerals amino acids

lodine & Tyrosine

Supplement For Serving Size: One CapsuleServings Per		
Each Capsule Contains:		% DV
lodine (as Potassium lodide)	225 mcg.	150%
Tyrosine (as L-Tyrosine)	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M219 Dosage: 1 capsule bid

iodine article (13-2) thyroid article (5-4) tyrosine monograph product data sheet

Selenium is an important trace mineral and constituent of the antioxidant enzyme glutathione peroxidase – necessary for the metabolism of hydrogen peroxide and lipid peroxides.

Selenium appears to exert chemopreventive effects by impacting transcription factor NF κ B, signal transduction and cell cycle checkpoints, and enhancing apoptosis. Evidence also indicates selenium may substitute for sulfur in key signaling enzymes such as tyrosine kinase. Therefore, selenium's chemopreventive role is not limited to its antioxidant function. Selenium is also necessary for conversion of thyroid hormone T4 to active T3.

antioxidants thyroid support minerals

Selenium Picolinate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60		
Each Capsule Contains:		% DV
Selenium (as Selenium Picolinate)	200 mcg.	286%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M256 Dosage: 1 capsule qd

product data sheet

Selenium Citrate

Supplement Fa Serving Size: One CapsuleServings Per		
Each Capsule Contains:		% DV
Selenium (as Selenium Citrate)	200 mcg.	286%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule. Leucine.† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M236 Dosage: 1 capsule qd

selenium and cancer article (9-3) selenium monograph product data sheet

Selenium Picolinate

a Thorne Research exclusive

Numerous studies have found a relationship between low serum selenium and higher incidence of certain chronic diseases. Epidemiological studies indicate low selenium levels are associated with cardiomyopathy and other cardiovascular conditions, increased rates of carcinogenesis, endemic goiter, multiple sclerosis, progression of HIV, rheumatoid arthritis, liver disease, hypothyroidism, asthma, cataracts, food allergies, and male infertility. Selenium supplementation may exert a protective effect against mercury, cadmium, and other heavy metal toxicities.

Selenium picolinate is a patented, highly absorbable selenium chelate, available only from Thorne Research.

Selenium Citrate

citrate - an important Krebs cycle intermediate

Selenium citrate contains 200 mcg of selenium bound to citric acid – also a very well absorbed mineral chelate. Citric acid is an important Krebs cycle organic acid. Citrate chelates are especially indicated if you are trying to increase citrate levels in the body – for patients with a propensity to develop kidney stones, for example.

other products to see: Anti-Oxidant

Vanoxyl-5®

a trace mineral with insulin-like activity

Vanadium is essential for healthy bones, teeth, and cartilage. In the form of vanadyl sulfate, vanadium can mimic the effects of insulin. In fact, at the end of the 19th century, 20-30 years before the discovery of insulin, vanadium was used as a first-line treatment for diabetes. Both animal and human studies point to the potential of vanadyl sulfate for enhancing glucose control. One mechanism of action appears to be an increase in insulin-producing beta cells in the pancreas. Other studies have shown an improvement in muscle and liver insulin sensitivity in type 2 diabetes and stimulation of lipolysis in fat cells after vanadium supplementation. Vanadium also appears to increase deposition of glycogen (storage sugar) in the liver and prevent gluconeogenesis (the formation of glucose from protein). Animal studies have also shown vanadium exerts antihypertensive effects and protects against glucose-induced cataracts and nephropathy. Vanadium appears to accumulate in bone tissue where it plays an important osteogenic role, so it may have application for prevention of osteoporosis.

Vanoxyl-5 provides 5 mg vanadyl sulfate (1.56 mg elemental vanadium) per capsule.

Vanoxyl-25®

a high potency vanadyl sulfate compound

Studies on vanadyl sulfate for impacting glucose metabolism have relied on relatively high doses. In one study of individuals with type 2 diabetes, 150 mg or 300 mg vanadyl sulfate daily for six weeks significantly improved fasting glucose and hemoglobin A1C (a measure of long-term blood sugar control), while 75 mg/day did not. Other studies have yielded positive results with daily doses of 150 mg for six weeks and 100 mg for three weeks (two studies). Other findings in these studies include decreases of total and LDL cholesterol, free fatty acids, and lipid oxidation. The only side effect with higher doses (150-300 mg) was some gastrointestinal intolerance. No oxidative stress or other signs of toxicity were noted in these short-term studies. Animal toxicity studies at doses necessary to achieve euglycemia concluded no toxicity after one year.

Each capsule of Vanoxyl-25 contains 25 mg of vanadyl sulfate (7.81 mg elemental vanadium) per capsule.

other products to see: Diabenil, UltraChrome, Chromium Picolinate

carbohydrate metabolism minerals

Vanoxyl 5

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Vanadyl Sulfate 5 mg. *

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M266 Dosage: 1 to 2 capsules tid

product data sheet

carbohydrate metabolism minerals

Vanoxyl 25

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Vanadyl Sulfate 25 mg. *

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: M267 Dosage: 1 to 2 capsules qd - bid

> diabetes article (2-4) diabetes article (7-1) product data sheet

musculoskeletal support minerals

Manganese Picolinate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60

	•		
Each Capsule Conta	ains:		% DV
Manganese (a	s Manganese Picolinate)	15 mg.	750%
Daily Value (DV)			

Other Ingredients: Hypromellose (derived from cellulose) capsule. Leucine.† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M211 Dosage: 1 capsule qd - bid

> manganese monograph product data sheet

sulfite metabolism minerals

Molybdenum Picolinate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains:	% DV
Molybdenum (as Molybdenum Picolinate)	1000 mcg. 13349
Daily Value (DV)	

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

 $^{\dagger}\!A$ hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M260 Dosage: 1 to 2 capsules tid

> molybdenum monograph product data sheet

Manganese Picolinate exclusive, well-absorbed, picolinate chelate

Manganese is an essential component of carbohydrate metabolism, reproductive function, and skeletal and cartilage development. It concentrates in mitochondrial tissue and in the bone, liver, pancreas, and kidney. Manganese is the critical element in the metalloenzymes pyruvate decarboxylase and superoxide dismutase that are involved in energy production and immune function. Manganese also activates phosphatases, kinases, decarboxylases, and glycosyltransferases, facilitating the synthesis of protein and DNA in the production of mucopolysaccharides found in cartilage. Because manganese is an essential cofactor for superoxide dismutase (an enzyme that protects cell membranes from lipid peroxidation, radiation- or chemical-induced carcinogenesis, reperfusion injury, and inflammation), a manganese deficiency can result in a deficiency of SOD. Decreased serum manganese has been found in epileptics, diabetics, and persons with osteoporosis.

other products to see: Collag-en

Molybdenum Picolinate

an important trace mineral cofactor for sulfite metabolism

Molybdenum has been identified as an essential trace element in humans, occurring as a cofactor in three important enzymatic reactions – sulfite oxidase, xanthine oxidase/dehydrogenase, and aldehyde oxidase. The latter two play a roll in hepatic detoxification of xenobiotics, certain drugs, estradiol, and progesterone. Sulfite oxidase, the most important molybdoenzyme in humans, oxidizes sulfite to sulfate, the final step in metabolism of sulfur-containing amino acids.

Sulfites are frequently found in wine and food preservatives for meat, fish, salad bar items, and dehydrated fruits and vegetables. Sulfite sensitivity is characterized by asthma-like symptoms, including wheezing, chest tightness, coughing, shortness of breath, and even loss of consciousness in cases of anaphylactic shock. Other symptoms include flushing, itching, hives, swelling of eyes, hands and feet, nausea, and diarrhea. Because molybdenum, as an essential cofactor for sulfite oxidase, enhances sulfite metabolism, supplementation may benefit some sulfite-sensitive individuals.

other products to see: Basic Detox Nutrients

Zinc is essential for growth, immune system function, testosterone metabolism, as a cofactor for the antioxidant enzyme superoxide dismutase, and for many other functions in the body. Zinc is involved in the functioning of over 200 enzymes, including RNA and DNA polymerase, alcohol dehydrogenase and alkaline phosphatase, and plays a key role in genetic expression, cell division, and growth. Zinc appears to protect the retina, enhance fertility, and have antiviral effects.

Zinc deficiency has been associated with endocrine changes, immune dysfunction, congenital malformations and prematurity, anorexia, alopecia, and hypogeusia (decreased sense of taste). Individuals susceptible to zinc deficiency include the elderly, HIV patients, those on parenteral nutrition, and burn victims.

Clinical studies demonstrate zinc supplementation can decrease the incidence of infections, including the common cold, infectious diarrhea, and childhood pneumonia. Zinc is deficient in colonic mucosal tissue of patients with ulcerative colitis; supplementation may improve intestinal mucosal integrity. Other conditions that may benefit from zinc supplementation include male infertility, macular degeneration, weight loss associated with anorexia, and rheumatoid arthritis.

immune support minerals

Zinc Citrate

a well-absorbed zinc chelate

Low-molecular-weight organic acids, such as citrate, are known to have a positive effect on zinc absorption. Certain dietary factors such as phytic acid in grains can interfere with absorption of minerals. An animal study found citrate offset the negative effects of dietary phytic acid on zinc absorption.

other products to see: Zinc Picolinate, IM-Encap

Zinc Citrate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Zinc (as Zinc Citrate) 30 mg. 200% Daily Vialue (DV)

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M239 Dosage: 1 capsule qd - bid

> zinc monograph product data sheet

The Thorne Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

BACK TO ALPHA INDEX

immune support minerals

Zinc Picolinate

Supplement Facts Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains:		% DV
Zinc (as Zinc Picolinate)	15 mg.	100%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Aspartic Acid,† Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M210 Dosage: 1 capsule qd - bid

product data sheet

Zinc Picolinate high bioavailability zinc supplement

Because of zinc's essential role in human nutrition and metabolism, there is concern regarding the absorption of zinc, both from dietary intake and nutritional supplements. While oral zinc supplementation is efficacious in most zinc deficiency conditions, not all zinc preparations have equal bioavailability. Acrodermatitis enteropathica (AE), a rare genetic disorder characterized by a severe zinc deficit, provides an excellent model for understanding zinc deficiency and absorption in humans. Patients with AE have a defect in tryptophan metabolism, which may predispose them to producing decreased levels of picolinic acid. Zinc picolinate appears to have the greatest efficacy in reversing the zinc deficiency of AE and is also absorbed to a higher degree in normal subjects than other zinc supplements.

immune support dermatology minerals

Double Strength Zinc Picolinate

Supplement Facts

Serving Size: One CapsuleServings Per Container: 60		
Each Capsule Contains:		% DV
Zinc (as Zinc Picolinate)	30 mg.	200%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Aspartic Acid,† Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: M220 Dosage: 1 capsule qd - bid

> also available 180 Vegetarian Capsules Code: M221

> > zinc monograph product data sheet

Double Strength Zinc Picolinate

high-potency zinc supplement

Zinc deficiency in humans is widespread and

Zinc deficiency in humans is widespread and supplementation at high levels may be necessary in such patients, including those with malnutrition, malabsorption, chronic diarrhea, or other risk factors of zinc deficiency. Injured and stressed individuals are more prone to developing deficiencies. Increased local demand for zinc, resulting from surgery, wound trauma, or burns, exposes otherwise marginal zinc deficiencies. Zinc is lost in significant amounts after surgery because of fistulas, stress, and diarrhea.

Zinc supplements should be taken with food, especially when higher doses are used, in order to prevent nausea. If high doses are taken over a long period of time, copper should be supplemented as well to prevent a deficiency of this important trace mineral. A recommended ratio of zinc to copper is 15 mg zinc to 1 mg copper.

other products to see: Zinc Citrate, IM-Encap





Zinc Carbonate

a naturally occurring form of zinc

Zinc carbonate is a neutral pH, naturally occurring, inorganic form of zinc. Some practitioners find this form of zinc particularly beneficial for allergy patients.

Zinc carbonate has a somewhat colorful history. It was first identified in 1832. Also known as smithsonite, it was named for the British chemist James Smithson, whose estate also financed the Smithsonian Institute. Zinc carbonate has also been referred to as "calamine" and is a primary ingredient in the anti-itch product calamine lotion.

immune support minerals

Zinc Carbonate

Supplement Facts

erving Size: One CapsuleServings Per Container: 60

Each Capsule Contains:		% DV
Zinc (as Zinc Carbonate)	30 mg.	200%
Daily Value (DV)		

Other Ingredients: Hypromellose (derived from cellulose) capsule and cellulose.

60 Vegetarian Capsules Code: M259 Dosage: 1 capsule qd - bid

product data sheet

Zinc Sulfate, 7-Hydrate zinc solution for the zinc taste test

Zinc sulfate solution can be used in testing for a possible zinc deficiency. Follow the steps outlined below for oral zinc taste testing. In addition, it can be used for low-dose zinc supplementation. Each teaspoon contains 1.5 mg zinc.

Oral Zinc Test

Instruct the individual to hold a teaspoonful of zinc sulfate solution in the mouth for 30 seconds and note the taste response from one of four categories:

- 1. No specific taste or other sensation is noticed, even after 30 seconds
- 2. No immediate taste is noted, but after a few seconds a slight taste described as dry, mineral, furry, or even sweet is reported
- 3. A definite, although not strongly unpleasant, taste is noted almost immediately and tends to intensify with time
- 4. A strong, unpleasant taste is noted immediately and tends to intensify with time

Individuals who fall into category 1 or 2 might respond favorably to zinc supplementation.

minerals

Zinc Sulphate, 7-Hydrate

Supplement Facts Serving Size: One Teaspoon

 Each (5 mL) Teaspoon Contains:
 % DV

 Zinc (as Zinc Sulfate)
 1.15 mg.
 7.7%

 Baily Value (DV)

Other Ingredients: Distilled water.

8 Fluid Ounces (240 mL) Code: ZN Dosage: call Customer Service

product data sheet

The Thome Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.



DETOXIFICATION REDEFINED BY PHYTOSOME TECHNOLOGY

MediClear Plus gives you more protein, fewer carbohydrates, and a lower price than the leading competitor. Plus, the enhanced bioavailability and significantly greater clinical benefits of the key plant phytosome complexes unique to MediClear Plus.

ultra good - not ultra curry!

THE MEDICLEAR PLUS

MERIVA® CURCUMIN PHYTOSOME

a curcumin phospholipid with superior bioavailability, when compared to ordinary curcumin extracts

LEUCOSELECT® PHYTOSOME

a unique grape seed phospholipid with better absorption

GREENSELECT® PHYTOSOME

a naturally decaffeinated green tea phospholipid with similarly increased bioavailability

MAKE IT THE WAY YOU WANT IT

a new, better tasting, high-quality rice protein – without any flavorings or sweeteners for optimal purity and flexibility

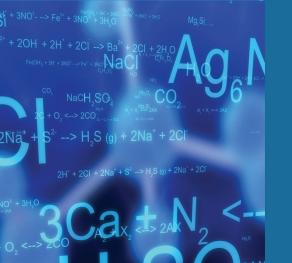


your partners in wellness

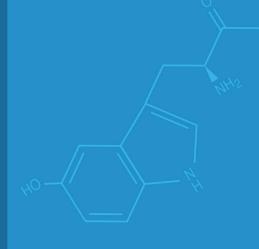


Perfusia-SR
time-release arginine
and we think the most
important cardiovascular
product of the decade

enhance serotonin production and calm anxiety



cardiac, neurological, and hepatic support





Amino acids provide essential building blocks for proteins and other biochemical substances. The structure of the individual amino acids and their sequences determines the biochemical properties of the particular protein. Proteins or individual amino acids are essential components for all structures and functions in the body, including enzymes, hormones, neurotransmitters, and connective tissues.

Some amino acids are produced in the body and others, the essential amino acids, must be provided in the diet or via supplementation. Beyond the amino acids used for protein synthesis, there are many non-protein amino acids that serve various functions in living organisms. Examples of non-protein amino acids include the neurotransmitters glycine, gamma-aminobutyric acid, and glutamate.

The 10 most significant amino acids produced in the human body include alanine, asparagine, aspartic acid, cysteine, glutamic acid, glutamine, glycine, proline, serine, and tyrosine (assuming the body has enough of its precursor, phenylalanine).

The 10 essential amino acids that need to be acquired in the diet or as supplements include arginine (required in infants, but not adults who can synthesize it), histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine. Since protein is not stored in the body in the same way fats and carbohydrates are, failure to obtain a particular necessary amino acid in the diet can result in breakdown of protein structures in the body, such as muscle tissue.

A number of amino acids have been shown to possess specific therapeutic potential when supplemented. These amino acids and their therapeutic functions are outlined in the following pages.



Perfusia-SR®

sustained-release arginine for cardiovascular function, wound healing, and immune function — a biological precursor to nitric oxide

L-arginine is a semi-essential amino acid involved in multiple areas of human physiology and metabolism. Arginine significantly affects endocrine function and helps regulate the release of catecholamines, insulin, glucagon, and growth hormone. However, one of L-arginine's most compelling contributions to human physiology is its role as a biological precursor of nitric oxide (NO). The vascular endothelium creates NO from L-arginine, resulting in endothelial relaxation and reduced platelet aggregation. These properties are critical to blood pressure maintenance, myocardial function, erectile function, inflammatory response, and protection against oxidative damage.

For oxidized cholesterol to embed in the wall of an artery, there first must be a breakdown of the normal protective mechanisms in the vascular endothelial cells lining the inside of blood vessels. This makes it vital to not only lower the amount of circulating cholesterol, but to also support the natural preventive functions of the vascular endothelium, which depend on an adequate amount of L-arginine being available to these cells. As mentioned above, the conversion of L-arginine to NO is responsible for vascular smooth muscle relaxation and increased blood flow. Adequate nitric oxide production also makes endothelial cells more resistant to oxidative damage and adhesion by monocytes, platelets, and LDL cholesterol. Numerous studies have demonstrated individuals with hyperlipidemia, hypertension, and heart failure have reduced nitric oxide production by endothelial cells and that L-arginine supplementation improves blood flow, blood pressure, and homocysteine levels.

... continued



when sufficient L-arginine is present:

- → arteries relax, causing greater blood flow
- as arteries relax, normal blood pressure is better maintained
- erections occur in the normal course of intimacy
- → white blood cells and platelets adhere less to vascular endothelial cells, helping to maintain supple, flexible arteries

amino acids cardiovascular support peripheral vascular support wound healing men's health

Perfusia-SR®

Other Ingredients: High and low viscosity hydroxypropyl methylcellulose and MagnesiumCitrateLaurate, Hypromellose (derived from cellulose) capsule, Leucine,¹ Silicon Dioxide.¹

**Arginine complexed with Time-Sorb® – a patent-pending, time release matrix

†A hypoallergenic ingredient used to fill space.

120 Vegetarian Capsules Code: SA525 Dosage: 2 capsules bid

arginine article (11-1)
vascular function article (10-1)
arginine monograph
product data sheet

In a large, double-blind trial of men with erectile dysfunction (ED), 1.6 g L-arginine daily for six weeks resulted in improvement in ED in those with abnormal nitric oxide metabolism.

Like most amino acids, L-arginine functions as a building block of proteins; however, its presence also appears to be a crucial element in wound healing. Numerous clinical studies have shown L-arginine supplementation increases the speed of healing and the strength of the tissue in and around the wound during the healing phase. Without adequate L-arginine (and subsequently, nitric oxide) available to vascular endothelial cells, arteries cannot dilate when necessary, resulting in poor blood flow. Diabetics and other individuals with peripheral vascular disease commonly have altered endothelial function and reduced blood flow to the extremities. Diabetics also tend to exhibit poor wound healing in the extremities. L-arginine supplementation has been shown to improve both peripheral blood flow and wound healing time in diabetics.

Regular L-arginine, however, is absorbed and metabolized very quickly, necessitating the use of large doses or frequent dosing throughout the day. Sustained release Perfusia-SR maintains a therapeutic level of L-arginine over 24 hours with twice-daily dosing. Studies on Perfusia-SR have shown increased blood flow to the heart muscle and the extremities, reduced blood pressure, and improved vascular elasticity. A 2004 study found Perfusia-SR potentiated the beneficial effect of statin drugs on the vascular endothelium, resulting in better blood flow. Another recent study demonstrated improved myocardial blood flow after Perfusia-SR supplementation in patients with coronary heart disease. This study utilized myocardial PET scans to determine a 22-percent increase in high-level myocardial functioning. Perfusia-SR was given to 29 healthy volunteers for one week and significant improvement was seen in diastolic blood pressure (mean 4 mm Hg) and vascular compliance. In individuals with borderline or frank hypertension, a significant reduction was seen in systolic blood pressure (mean 11 mm Hg).

- → increases serotonin levels for sleep enhancement, decreased sugar cravings, and less anxiety
- → can be utilized at meals without competing with other amino acids



5-Hydroxytryptophan

enhances serotonin production

5-Hydroxytryptophan (5-HTP) is the intermediate metabolite of the essential amino acid L-tryptophan in the biosynthesis of serotonin. Intestinal absorption of 5-HTP does not require the presence of a transport molecule, and is not affected by the presence of other amino acids; therefore, it may be taken with meals without reducing its effectiveness. Unlike L-tryptophan, 5-HTP cannot be shunted into niacin or protein production. Therapeutic use of 5-HTP bypasses the conversion of L-tryptophan into 5-HTP by the enzyme tryptophan hydroxylase, which is the rate-limiting step in the synthesis of serotonin and is inhibited by numerous factors, including stress, insulin resistance, vitamin B6 deficiency, magnesium deficiency, and increasing age. 5-HTP is well absorbed from an oral dose, with about 70 percent ending up in the bloodstream. It easily crosses the blood-brain barrier and effectively increases central nervous system (CNS) synthesis of serotonin. In the CNS, serotonin levels have been implicated in the regulation of sleep, depression, anxiety, aggression, appetite, temperature, sexual behavior, and pain sensation.

Therapeutic administration of 5-HTP has been shown to be effective in treating a wide variety of conditions, including depression, fibromyalgia, insomnia, binge eating associated with obesity, and chronic headaches. Numerous studies of individuals with unipolar or bipolar depression have shown significant clinical response with doses of 50-300 mg of 5-HTP daily. Higher doses are necessary to replenish serotonin levels in obese patients on calorie-restricted diets. In these studies, 300 mg three times daily resulted in decreased food intake and subsequent weight loss.

Thorne's 5-HTP formulation also contains pyridoxal 5'-phosphate, the active form of vitamin B6 and the necessary cofactor for conversion of 5-HTP to serotonin. 5-HTP is commercially produced by extraction from the seeds of the African plant, *Griffonia simplicifolia*.

other products to see: L-Tryptophan, PharmaGABA-PRO, Deproloft

amino acids neuroendocrine support mood enhancement sleep management

5-Hydroxytryptophan

Supplement Fa	acts s Per Con	
Each Capsule Contains:		
Vitamin B6 (from 5 mg Pyridoxal 5'-Phosphate)	3.4 mg.	170%
5-Hydroxytryptophan	50 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule. May contain one or more of the following hypoallergenic ingredients to fill space – Magnesium Citrate, Leucine, Silicon Dioxide.

90 Vegetarian Capsules Code: SA503 Dosage: 1 to 2 capsules tid

5HTP article (3-4)
5HTP and hot flash article (10-3)
5HTP monograph
product data sheet



- → acts as an antioxidant in the brain and peripheral nervous system
- → supports healthy brain function and improves memory
- → supports healthy sperm numbers and motility

amino acids cognitive support neurological support

CarnityI

Supplement Facts Serving Size: One CapsuleServings Per Container: 60		
Each Capsule Contains:		% DV
Acetyl-L-Carnitine	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide. $^{\dagger}\,$

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SA520 Dosage: 1 to 2 capsules tid

acetyl carnitine article (1-2) acetyl-L-carnitine monograph product data sheet

Carnityl®

acetyl-L-carnitine for support of the CNS and peripheral nerves

Acetyl-L-carnitine (ALC) is an ester of the trimethylated amino acid, L-carnitine, and is synthesized from L-carnitine in the brain, liver, and kidney. Acetyl-L-carnitine facilitates the uptake of acetyl CoA into the mitochondria during fatty acid oxidation, enhances acetylcholine production, and stimulates protein and cell membrane phospholipid synthesis.

Taken supplementally, ALC is better absorbed and crosses the blood-brain barrier better than L-carnitine. Several studies have demonstrated ALC's effectiveness in Alzheimer's disease, especially if supplementation is begun early in the disease process. Other studies have shown ALC may be of benefit for depression in the elderly, possibly by partially inhibiting the activity of the hypothalamic-pituitary-adrenal axis and lowering chronically elevated cortisol levels. ALC has also demonstrated benefit in diabetic, HIV-associated, and chemotherapy-induced neuropathies, ischemia and reperfusion of the brain, and cognitive impairment of alcoholics.

Therapeutic doses of acetyl-L-carnitine range from 1,500 to 3,000 mg daily, in divided doses.

other products to see: Memoractiv, Neurochondria, Fibrovive

L-Carnitine

essential for skeletal and cardiac muscle support

L-carnitine, a trimethylated amino acid, is a cofactor required for transformation of free long-chain fatty acids into acylcarnitines, and for their subsequent transport into the mitochondrial matrix, where they undergo beta-oxidation for cellular energy production. Preterm infants, dialysis patients, and HIV-positive individuals appear to be prone to a deficiency of L-carnitine. Deficiencies can manifest as cardiomyopathy, congestive heart failure, encephalopathy, hepatomegaly, impaired growth and development in infants, and neuromuscular disorders. Conditions that appear to benefit from supplementation of L-carnitine include anorexia, chronic fatigue, cardiovascular disease, insulin resistance, hyperlipidemia, male infertility, and muscular myopathies. L-carnitine has also been shown to benefit athletic performance. Studies have shown improvements in running speed, decreased average oxygen consumption, heart rate, and lactic acid, and increased maximal oxygen uptake. Studies on high-repetition exercise found improved muscle recovery after L-carnitine supplementation.

L-carnitine is probably best known for its cardiac benefits. In the heart muscle, L-carnitine facilitates fatty acid utilization, resulting in stabilization of rhythm, optimization of myocardial blood flow, and increased cardiac output. Carnitine also helps normalize and maintain blood lipid levels, with research showing improvements in total cholesterol, LDL cholesterol, LP(a), and triglycerides. Clinical studies show L-carnitine administration can have profound effects on cardiac tissue. L-carnitine improves exercise tolerance in patients with chronic obstructive pulmonary disorders. L-carnitine has also been demonstrated to improve cardiac function in patients with congestive heart failure. For example, in a study of 70 patients with congestive heart failure, L-carnitine (2 g/daily) significantly reduced the risk of death, compared to placebo, over a 54-month period (one death in the L-carnitine group versus six in the placebo group) (p <0.04). The most dramatic study of L-carnitine involved administration of 2 g/ day or placebo in 101 patients who had experienced a recent myocardial infarction. L-carnitine significantly reduced infarct size and improved angina, arrhythmias, and signs of heart failure. Cardiac events, including non-fatal infarctions and death, were significantly improved in the L-carnitine group (15.6% of patients) compared to placebo (26.0%).

other products to see: Fibrovive, Metaplex



amino acids cardiovascular support lipid support

L-Carnitine

Supplement Fa Serving Size: One CapsuleServings Per		
Each Capsule Contains:		% DV
L-Carnitine	330 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SA502 Dosage: 1 to 2 capsules tid

carnitine article (3-5) carnitine & HIV article (5-4) carnitine monograph product data sheet



- therapeutic agent for heavy metal detoxification
- → a powerful liver detoxifier well-accepted antidote for Tylenol® poisoning
- → decreases thickness of nasal mucosa

amino acids hepatic support respiratory support allergy support

detoxification support

Cysteplus®

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
Each Capsule Contains:		% DV
N-Acetyl-L-Cysteine	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine † Silicon Dioxide †

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SA560 Dosage: 1 capsule tid with

N-acetylcysteine article (3-2)
NAC and HIV article (5-4)
N-acetylcysteine monograph
product data sheet
detox booklet

Cysteplus®

N-acetylcysteine for liver support, detoxification, and immune support

N-acetylcysteine (NAC) is the precursor of both the amino acid L-cysteine and reduced glutathione (GSH). Animal and human studies of NAC have shown it to be a powerful antioxidant and a therapeutic agent for heavy metal toxicity and other diseases characterized by free radical, oxidative damage. As a source of sulfhydryl groups, NAC stimulates glutathione synthesis, enhances glutathione-S-transferase activity, promotes liver detoxification by inhibiting xenobiotic biotransformation, and is a powerful nucleophile capable of scavenging free radicals. Historically the most prevalent and well-accepted use of NAC has been as an antidote for acetaminophen (Tylenol®) poisoning. The resultant liver toxicity is due to an acetaminophen metabolite that depletes the hepatocytes of glutathione and causes hepatocellular damage and possibly even death. NAC administered intravenously or orally within 24 hours of overdose is effective at preventing liver toxicity; however, improvement is most notable if treatment is initiated within 8-10 hours of acetaminophen overdose. NAC has also been effective for poisoning by carbon tetrachloride, acrylonitriles, halothane, paraguat, acetaldehyde, coumarin, and interferon. In addition to its dramatic effects in liver poisoning, NAC is effective in promoting normal liver detoxification.

Research suggests NAC is capable of enhancing T-cell immunity by stimulating T-cell colony formation, and blocking NF kappa B expression. In a double-blind, placebo-controlled trial, NAC was shown to positively impact CD4+ lymphocyte cell counts. NAC has application for respiratory ailments due to its mucolytic activity. NAC's sulfhydryl group cleaves disulfide bonds in mucoproteins, causing mucus to be subsequently broken into smaller, less viscous units. NAC has been noted to decrease the viscoelasticity of nasal mucus and increase the mucociliary clearance rate by thinning of secretions, improving conditions such as bronchitis and flu. Several animal and human studies have explored NAC's effectiveness as a therapeutic agent for various types of respiratory illness. While results vary, NAC administration has resulted in improved expectoration, with decreased cough severity and diaphragm fatigue. In a small study of 18 patients with fibrosing alveolitis – a condition characterized by severe oxidative stress and decreased glutathione levels – NAC 600 mg three times daily for 12 weeks resulted in improvement in pulmonary function and glutathione levels.

- a Thorne Research exclusive
- → sustained release glutathione for optimal absorption



Glutathione-SR

sustained-release glutathione for essential antioxidant support

Reduced glutathione (GSH) occurs naturally in all human cells. Its intracellular depletion ultimately results in cell death; thus, it has extensive clinical relevance. GSH is a cofactor for dozens of enzymes involved in detoxification. In addition, it directly quenches several reactive oxygen species. The aging process is associated with deterioration of glutathione homeostasis. Numerous conditions are characterized by a glutathione deficiency, including liver disease, chronic obstructive pulmonary disease, HIV infection, inflammatory bowel disease, diabetes, cardiovascular disease, Alzheimer's disease, cataracts, and Parkinson's disease. Although a commonly held belief is that glutathione is not absorbed from an oral dose, copious data confirm it is efficiently absorbed across the intestinal epithelium by a specific uptake system.

The liver is the largest reservoir for glutathione in the body. Glutathione, a potent endogenous antioxidant, is absolutely essential for phase I and II liver detoxification. Glutathione levels have been found to be low in acute or chronic alcohol consumption, cirrhosis, non-alcoholic liver disease, and hepatitis. In addition acetaminophen (Tylenol®) and environmental xenobiotics can deplete the liver's supply of glutathione.

Optimal levels of glutathione appear to be very important for cognitive function, especially as we age. The process of aging is associated with a decrease in glutathione homeostasis, resulting in increased oxidative activity and decreased levels of reduced glutathione. This appears to be especially prominent in individuals experiencing a decline in cognitive function. Conversely, those living over 100 years tend to have higher glutathione reductase activity. A variety of neurodegenerative conditions manifest abnormally low glutathione levels.

Glutathione-SR from Thorne Research represents a breakthrough in glutathione supplementation. Absorption of oral glutathione may be affected by stomach acid or enzymes in the duodenum, which can break glutathione into its amino acid components. However, the sustained-release properties of Glutathione-SR protect it from stomach acid and digestive enzymes, allowing slower release and a more steady blood level of this essential nutrient.

other products to see: Anti-Oxidant

amino acids antioxidants cognitive support hepatic support

Glutathione-SR

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Reduced Glutathione ** 175 mg. *Daily Value (DV) not established

Other Ingredients: High and low viscosity hydroxypropyl methylcellulose and CalciumCitrateLaurate, Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

- [†]A hypoallergenic ingredient used to fill space.
- **Glutathione complexed with Time-Sorb® a patent-pending, time release matrix.

60 Vegetarian Capsules Code: SA540 Dosage: 1 capsule tid

glutathione article (2-3) **GSH** and mercury article (7-6) glutathione monograph product data sheet



amino acids stress management mood enhancement neuroendocrine support sleep management

PharmaGABA-PRO™

Supplement Facts

Each Capsule Contains:		% DV
Gamma-aminobutyric acid**	100 mg.	*
*Naily Value (NV) not established		

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Cellulose,† Silicon Dioxide.†

60 Vegetarian Capsules Code: SP652 Dosage: 1 to 2 capsules tid

GABA monograph PharmaGABA-PRO sales sheet product data sheet

Now, for the first time, a medical study has proven what we've all suspected: stress speeds up aging.

Stress and lack of sleep can exert significant effects on the body, contributing to the aging process. From a 2004 study in the Proceedings of the National Academy of Sciences:

"...the exact mechanisms of how stress gets 'under the skin' remain elusive. We investigated the hypothesis that stress impacts health by modulating the rate of cellular aging. Here we provide evidence that psychological stress – both perceived stress and chronicity of stress – is significantly associated with higher oxidative stress, lower telomerase activity, and shorter telomere length, which are known determinants of cell senescence and longevity."

Epel ES, Blackburn EH, Lin J, et al. Accelerated telomere shortening in response to life stress. *Proc Natl Acad Sci U S A* 2004;101:17312-17315.

PharmaGABA-PRO™

natural-source gamma-aminobutyric acid

Gamma-aminobutyric acid (GABA) is a major neurotransmitter widely distributed throughout the central nervous system. Because too much excitation can lead to irritability, restlessness, insomnia, seizures, and movement disorders, it must be balanced with inhibition. GABA – the most important inhibitory neurotransmitter in the brain – provides this inhibition, acting like a "brake" during times of runaway stress. Medications for anxiety, such as benzodiazepines, stimulate GABA receptors and induce relaxation. Either low GABA levels or decreased GABA function in the brain is associated with several psychiatric and neurological disorders, including anxiety, depression, insomnia, and epilepsy. Studies indicate GABA can improve relaxation and enhance sleep.

The natural GABA in PharmaGABA-PRO is produced via a fermentation process that utilizes *Lactobacillus hilgardii* – the bacteria used to ferment vegetables in the preparation of the traditional Korean dish known as kimchi. Clinical studies have shown that natural PharmaGABA increases the production of brain alpha-waves, creating a profound sense of physical relaxation while maintaining mental focus. In contrast, stress-related beta-waves are decreased. In addition to changes in brain waves, PharmaGABA has been shown to produce relaxation as evidenced by reduced pupil diameter, heart rate, and markers of stress – salivary cortisol and chromogranin A. In a head-to-head, double-blind trial of natural PharmaGABA versus synthetic GABA, synthetic GABA did not demonstrate these effects.

other products to see: Theanine, Rhodiola

[†]A hypoallergenic ingredient used to fill space.

^{**} From PharmaGABA®, a more effective, non-synthetic, naturally fermented form of GABA. PharmaGABA® is a trademark of Pharma Foods International.

- → provides a soothing/healing effect on inflamed intestinal cells
- → glutamine powder for ease of high dosing



L-Glutamine

primary fuel for the enterocytes of the small intestine

L-glutamine is the most prevalent amino acid in the bloodstream. It is found in high concentration in skeletal muscle, lung, liver, brain, and gastrointestinal tissues. Skeletal muscle contains the greatest intracellular concentration of glutamine, comprising up to 60 percent of total body glutamine stores, and is considered the primary storage depot and exporter of glutamine to other tissues. However, the gastrointestinal tract is by far the greatest user of glutamine in the body as glutamine provides the primary fuel for the enterocytes of the small intestine.

Trauma, infection, starvation, chemotherapy, and other stressors are all associated with a derangement of normal intestinal permeability. In numerous animal studies of experimentally induced intestinal hyperpermeability, the addition of glutamine improved gut barrier function as well as immune activity in the gut. Impaired gut permeability allows for large protein molecules to diffuse across the damaged mucosa and enter the bloodstream. The body identifies these proteins as foreign and mounts an immune reaction against them, resulting in food allergies.

Under certain pathological circumstances the body's tissues need more glutamine than the amount supplied by diet and synthesis. In times of metabolic stress, glutamine is released into circulation, where it is transported to the tissue in need. Intracellular skeletal muscle glutamine concentration is affected by various insults, including injury, sepsis, prolonged stress, starvation, and the use of glucocorticoids. Glutamine is therefore classified as a conditionally essential amino acid. Research demonstrates glutamine supplementation may benefit surgery and trauma patients. In addition, evidence suggests supplemental glutamine may provide benefit for certain gastrointestinal conditions (Crohn's disease, ulcerative colitis, irritable bowel syndrome, stomach ulcers, gastritis, and food allergies), wound healing, HIV patients, immune enhancement in endurance athletes, and prevention of complications associated with chemotherapy and radiation.

other products to see: Perma-Clear, Traumogen, MediClear Plus

amino acids gastrointestinal support wound healing oncology support

L-Glutamine

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Glutamine (as L-Glutamine) 500 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SA518 Dosage: 2 to 4 capsules bid

product data sheet

L-Glutamine Powder

Supplement Facts Serving Size: One ScoopServings Per Container: 89 Each (3.8 g) Scoop Contains: % DV Glutamine (as L-Glutamine) 3800 mg. *

NET WT. 12 OZ (340 G) Code: SA519 Dosage: 1/2 to 2 scoops bid

glutamine article (4-4) glutamine and HIV article (5-4) glutamine monograph product data sheet





amino acids detoxification

Glycine

Supplement Facts Serving Size: One CapsuleServings Per Container: 250		
Each Capsule Contains:		% DV
Glycine	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

250 Vegetarian Capsules Code: SA512 Dosage: 2 capsules tid

product data sheet

Glycine

inhibitory neurotransmitter and essential for detoxification

Clinically, glycine is an important amino acid for relaxation, detoxification, and normal muscle function. Glycine plays a key role in maintaining healthy function of the central nervous system (CNS). Along with GABA, glycine is considered one of the most important inhibitory neurotransmitters in the CNS — particularly in the brainstem and spinal cord. Research indicates this amino acid may be beneficial in management of seizures, hyperactivity, manic (bipolar) depression, and schizophrenia.

One study involving 22 schizophrenic patients, who were initially unresponsive to conventional treatments, observed that adding glycine to their ongoing antipsychotic medication resulted in significant reduction of their symptoms. More research concerning the effects of glycine on schizophrenia is underway. Other studies have shown that glycine may also help improve memory retrieval loss in those that suffer from a wide variety of sleep-depriving conditions, including schizophrenia, Parkinson's disease, Huntington's disease, jet lag, and overwork.

The benefits of glycine are not just limited to the CNS. Glycine plays a key role in phase II liver detoxification, via conjugation directly with certain toxins and through conjugation with glutathione, which is composed of three amino acids — cysteine, glycine, and glutamic acid.

In addition, glycine is necessary for the production of healthy DNA and RNA, and therefore plays an important role in ensuring healthy formation and function of cells throughout the body. Glycine is one of three amino acids (along with arginine and methionine) needed for the synthesis of creatine, which in turn supplies energy to muscle and nerve cells. High concentrations of glycine are found not only in the muscles, but in the skin and other connective tissues as well. Approximately 30 percent of collagen is composed of glycine. Consequently, without glycine the body would not be able to effectively repair damaged tissues.

Glycine plays an important role in maintaining a healthy digestive system. It helps regulate the synthesis of the bile acid used to digest fats. Glycine also helps the body in regulating glucose utilization for energy. Consequently, glycine supplementation may be useful for treating symptoms characterized by low energy and fatigue, such as hypoglycemia, anemia, and chronic fatigue syndrome (CFS).

L-Lysine

amino acid with antiviral properties

L-lysine is an essential amino acid, meaning it cannot be synthesized in the body. Vegetarians can be deficient in lysine because, while meat, poultry, and milk are rich sources of lysine, proteins in grains and cereals are typically low in lysine. Of the many biological functions requiring lysine, some notable applications include synthesis of connective tissues such as bone, skin, collagen, and elastin; synthesis of carnitine and the resultant conversion of fatty acids to energy; support for healthy growth and development in children; and maintenance of healthy immune function, particularly with regard to antiviral activity.

L-lysine has been most extensively researched for prevention or management of *Herpes simplex* virus (HSV) infections. Some individuals with *Herpes simplex* infection appear to be sensitive to the lysine/arginine ratio in their tissues, with a decrease in this ratio resulting in skin eruptions. L-lysine appears to be beneficial in suppressing *Herpes simplex* replication by competing with arginine for absorption in the intestines, reabsorption in the renal tubules, and transport into cells. In addition, lysine helps breakdown arginine by inducing the enzyme arginase.

amino acids immune support

L-Lysine

Supplement Fac Serving Size: One CapsuleServings Per Co		
Each Capsule Contains:		% DV
Lysine (as L-Lysine hydrochloride)	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SA516 Dosage: 1 to 2 capsules bid

herpes simplex article (11-2) herpes zoster article (11-2) lysine monograph product data sheet

Metaplex®

free-form amino acids

Amino acids are the fundamental building blocks of proteins, necessary for growth and development, formation of hormones, neurotransmitters, and enzymes, and promotion of wound healing and muscle function.

Metaplex contains 15 free-form amino acids, including branched-chain amino acids leucine, isoleucine, and valine that are anabolic and essential as skeletal muscle fuel. Metaplex also contains glycine, glutamic acid, and cysteine, the three components of glutathione, the essential hepatic detoxifier and cellular antioxidant. Alpha-ketoglutarate, the citric acid (Krebs) cycle intermediate, is included for its sparing effects on muscle amino acid concentrations. Ferulic acid is included for its potent antioxidant and anti-inflammatory activity. Chromium is known for its insulin potentiating effects.

amino acids

Metaplex™

Supplement Facts Serving Size: One CapsuleServings Per Container: 150

Each Capsule Contains:		% DV
Biotin	100 mcg.	33%
Chromium (as UltraChrome®)	25 mcg.	21%
Alpha-Ketoglutaric Acid	50 mg.	*
Ferulic Acid	75 mg.	*
	1.41 . 1.01	

In a proprietary blend of Amino Acids - L-Alanine, L-Glutamic Acid, L-Arginine, L-Threonine, L-Valine, L-Leucine, L-Cysteine, L-Serine, Glycine, L-Isoleucine, L-Lysine, L-Proline, L-Tyrosine, L-Histidine, L-Carnitine.

*Daily Value (DV) not established.

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

150 Vegetarian Capsules Code: SA505 Dosage: 2 to 3 capsules tid between meals

product data sheet





amino acids neuroendocrine support mood enhancement

DL-Phenylalanine

Supplement Facts Serving Size: One CapsuleServings Per Container: 60		
Each Capsule Contains:		% DV
Phenylalanine (as DL-Phenylalanine)	550 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule.

60 Vegetarian Capsules
Code: SA550
Dosage: 1 to 2 capsules tid

depression article (5-1) dl-phenylalanine monograph product data sheet

DL-Phenylalanine

important neurotransmitter precursor

Phenylalanine is a biologically essential amino acid that is a precursor to tyrosine and the catecholamines (dopamine, norepinephrine, and epinephrine) and is a constituent of many central nervous system neuroactive metabolites and neuropeptides. An omnivorous diet provides 1-2 grams phenylalanine daily. Phenylalanine is involved in protein synthesis and regulation. It is converted to tyrosine via phenylalanine hydroxylase, an oxygenase enzyme that requires the presence of oxygen and tetrahydrobiopterin. In addition to phenylalanine's role as a precursor to the catecholamines, it is present in several active brain neuropeptides, including somatostatin, vasopressin, melanotropin, ACTH, substance P, enkephalin, angiotensin II, and cholecystokinin. A metabolic end product of phenylalanine, phenylethylamine (PEA) is believed to have stimulant-like properties, and urine levels may be reduced in patients with depression. Phenylalanine is the only amino acid besides methionine in which both isomers, the D- and L-forms, are equally utilized, due to efficient enzymatic conversion between the isomers.

Clinically, DL-phenylalanine (DLPA) is used to treat endogenous depression, attention deficit disorder, and chronic pain. DLPA has the potential to increase endorphin and enkephalin levels in the central nervous system. The analgesic properties associated with DLPA are thought to relate, at least in part, to blockage of enkephalin breakdown by D-phenylalanine. The resulting endorphins can interfere with prostaglandin-mediated inflammation. Pain relief has been noted after tooth extraction, and in individuals with osteoarthritis, rheumatoid arthritis, and chronic low-back pain.

Several clinical studies have demonstrated DLPA has antidepressant effects. In one study, the effects of DLPA were equivalent to the tricyclic antidepressant imipramine, both of which have the potential to increase norepinephrine levels. DLPA's antidepressant effects are attributable to its conversion to catecholamines including norepinephrine, low levels of which have been found in depressed patients.

other products to see: Deproloft

Taurine

important amino acid for cardiac, neurological, and hepatic support

Taurine is a conditionally essential, sulfur-containing amino acid that is found in the tissues of most animal species. It is not incorporated into proteins, but is found free in many tissues. Taurine is involved in a number of physiological processes including bile acid conjugation, osmoregulation, detoxification of xenobiotics, cell membrane stabilization, modulation of cellular calcium flux, and regulation of neuronal excitability. Conjugation of bile acids by taurine results in increased cholesterol solubility and excretion. Low levels of taurine have been associated with retinal degeneration, growth retardation, and cardiomyopathy. Individuals who are taurine deficient may be more susceptible to tissue damage by xenobiotics including aldehydes, chlorine, and amines. Taurine has been used clinically in the treatment of cardiovascular diseases, hypercholesterolemia, seizure disorders, ocular disorders, diabetes, Alzheimer's disease, hepatic disease, cystic fibrosis, and alcoholism.

Taurine is the most abundant amino acid in the heart. Taken supplementally, taurine helps stabilize heart rhythm, improves cardiac function and blood lipid levels, and may help normalize blood pressure. In a seven-week study of obese, non-diabetic patients, taurine (3 grams daily) significantly improved serum triglycerides, total cholesterol, HDL cholesterol, and body weight. Taurine has also been shown to improve nitric oxide production in the vascular endothelium, which is essential to blood flow, blood pressure regulation, and overall cardiovascular functioning. This improvement in vascular endothelial function is significant, as endothelial dysfunction is one of the earliest events in the formation of atherosclerotic lesions. Taurine acts as an antioxidant as well, inhibiting LDL cholesterol oxidation. Taurine significantly improved cardiac function in patients with congestive heart failure. In one study, in which patients were given 3 grams daily for six weeks, taurine dosing significantly improved left ventricular function. Other clinical studies echo these results, showing significant improvement in congestive heart failure.

other products to see: Q10 Plus

amino acids cardiovascular support hepatic support

Taurine

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
Each Capsule Contains:		% DV
Taurine	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SA511 Dosage: 1 to 2 capsules bid

> taurine article (3-2) taurine monograph product data sheet



amino acids mood enhancement neuroendocrine support stress management sleep management

Theanine

Supplement Facts

Each Capsule Contains:		% DV
Suntheanine® (L-Theanine)	200 mg.	*
*Naily Value (DV) not established		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SA508 Dosage: 1 or more capsules daily as needed

> theanine monograph product data sheet

Theanine

amino acid from green tea for enhanced relaxation

L-theanine is a unique amino acid present almost exclusively in the tea plant (Camellia sinensis) and used safely in Japan for decades. L-theanine has demonstrated the potential to positively modify brain waves and key neurotransmitters involved in mood, focus, and memory. Consumption of L-theanine enhances brain alpha-wave activity, a sign of relaxation. The intensity of brain alpha-wave activity increases within 30-45 minutes of L-theanine supplementation, resulting in enhanced relaxation and improved mental focus and acuity. This effect is most pronounced in persons subjectively feeling the highest levels of distress. A small Japanese study of university students showed 200 mg oral L-theanine led to increased brain alpha-waves and a subjective sense of relaxation. Theanine administration caused a dose-dependent relaxed, yet alert, state of mind without sedation, beginning approximately 40 minutes after oral dosing. L-theanine enhances production of dopamine and serotonin and appears to play a role in the formation of GABA - a neurotransmitter that acts like a "brake" during times of runaway distress. Theanine helps establish balance in the neurotransmitter system, resulting in improvements in the mental/ emotional and physical disturbances resulting from chronic stress.

In vitro and animal studies demonstrate L-theanine has an antitumor effect and potentiates the effect of some chemotherapeutic agents. L-theanine also inhibits LDL oxidation. An animal study demonstrated a dosedependent hypotensive effect of L-theanine. Conditions that may respond positively to L-theanine supplementation include anxiety, stress, insomnia, and hypertension. In addition, it has been shown to increase the activity of the chemotherapy drugs doxorubicin, idarubicin, pirarubicin, cisplatin, and irinotecan.

other products to see: PharmaGABA-PRO, Rhodiola

- → precursor to protein, niacin, serotonin, and melatonin
- → improves sleep, relaxation, and mood
- adjunct therapy for smoking cessation protocols



L-Tryptophan

precursor to serotonin, melatonin, and niacin

L-tryptophan is available again as a dietary supplement! Thorne's L-tryptophan is imported under strict FDA supervision and is independently tested to assure its purity.

L-tryptophan is a large amino acid essential to human metabolism because it is the metabolic precursor of serotonin (a neurotransmitter), melatonin (a neurohormone), and niacin (vitamin B3). Other neurotransmitters and central nervous system chemicals, including dopamine, norepinephrine, and beta-endorphin, have also been shown to increase following oral administration of tryptophan. Low levels of tryptophan have been associated with depression, bulimia, and schizophrenia. L-tryptophan can benefit individuals with sleep disorders, including sleep apnea and difficulty falling asleep. Clinical studies have shown L-tryptophan can provide benefit for several conditions with a dysphoric component. L-tryptophan supplementation improves mood swings, tension, anxiety disorders, and irritability associated with PMS. Non-responders to light therapy for seasonal affective disorder have been shown to respond to L-tryptophan supplementation. L-tryptophan has been used as an adjunct therapy for smoking cessation, with recipients experiencing fewer nicotine withdrawal symptoms.

Supplementing with L-tryptophan allows the body to use it where it is needed most - for protein synthesis, niacin formation, or as a serotonin/ melatonin precursor. For optimal L-tryptophan absorption and transport across the blood-brain barrier, it is best to dose L-tryptophan along with a dietary carbohydrate.

other products to see: 5-Hydroxytryptophan, Deproloft

amino acids neuroendocrine support mood enhancement sleep management

L-Tryptophan

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV 500 mg. Tryptophan (as L-Tryptophan) *Daily Value (DV) not established.

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Cellulose,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SA501 Dosage: 1 to 2 capsules bid

depression article (5-1) tryptophan monograph product data sheet





amino acids neuroendocrine support mood enhancement

L-Tyrosine

Supplement Facts Serving Size: One CapsuleServings Per Container: 90

Each Capsule Contains:		% DV
Tyrosine (as L-Tyrosine)	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SA514 Dosage: 2 capsules tid

> thyroid article (5-4) tyrosine monograph product data sheet

L-Tyrosine essential for neurotransmitter and thyroid hormone synthesis

Tyrosine is an amino acid precursor for norepinephrine and dopamine synthesis. By improving the rate of neurotransmitter synthesis, tyrosine stimulates the central nervous system and acts as an antidepressant. It appears to function as an adaptogen by relieving physical symptoms of stress, such as anxiety and mood swings. Chronically stressed individuals may not efficiently convert phenylalanine to tyrosine, making supplementation with tyrosine a necessity.

Tyrosine also serves as a precursor for the thyroid hormone thyroxine and melanin, the pigment responsible for skin and hair color and protection against harmful ultraviolet rays. In addition, tyrosine stimulates growth hormone and is involved in adrenal and pituitary function. Because of its phenolic structure, tyrosine is a powerful antioxidant, scavenging and neutralizing free radicals and inhibiting lipid peroxidation.

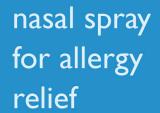
Clinical conditions for which tyrosine supplementation may be of therapeutic benefit include depression, hypertension, stress, cognitive function and memory, Parkinson's disease, hypothyroidism, and narcolepsy. Individuals with phenylketonuria (PKU) lack the enzyme phenylalanine hydroxylase necessary for conversion of phenylalanine to tyrosine, making tyrosine an essential amino acid for this population.

other products to see: Thyrocsin, Deproloft, Iodine & Tyrosine

flavonoids

variety, quality and innovation

patented
water-soluble
quercetin for
greater absorption



potent antioxidants

Flavonoids occur in most plant species and account for a significant percentage of the chemical constituents of some. Flavonoids have been shown to have antibacterial, anti-inflammatory, anti-allergic, antimutagenic, antiviral, antineoplastic, anti-thrombotic, and vasodilatory activity. The potent antioxidant activity of flavonoids may be the most important function of flavonoids and underlies many of the above actions in the body.



Flavonoids occur in most plant species and account for a significant percentage of the chemical constituents of some; e.g., dried green tea leaves contain approximately 30-percent flavonoids by weight. Flavonoids have been shown to have antibacterial, anti-inflammatory, anti-allergic, antimutagenic, antiviral, antineoplastic, anti-thrombotic, and vasodilatory activity. The potent antioxidant activity of flavonoids – their ability to scavenge hydroxyl radicals, superoxide anions, and lipid peroxy radicals – may be the most important function of flavonoids and underlies many of the above actions in the body. Oxidative damage is implicated in most disease processes, and epidemiological, clinical, and laboratory research on flavonoids suggest their use in the prevention and treatment of a number of these. Catechin and its derivatives, oligomeric proanthocyanidins, quercetin and quercetin chalcone, Ginkgo flavone glycosides, silymarin, and others can be utilized in preventive and treatment protocols for cardiovascular disease, cancer, inflammatory conditions, asthma, periodontal disease, cognitive dysfunction, liver disease, cataracts, and macular degeneration.

flavonoids peripheral vascular support women's health

Diosmin-HMC

Supplement Facts Serving Size: One CapsuleServings Per Container: 60				
Each Capsule Contains:		% DV		
Diosmin	400 mg.	*		
Hesperidin Methyl Chalcone	50 mg.	*		
*Daily Value (DV) not established.				

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

 $^{\rm t}\!{\rm A}$ hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SB333 Dosage: 1 capsule bid

> varicose vein article (6-2) diosmin monograph product data sheet

Diosmin-HMC

strengthens blood vessels

Diosmin HMC is a combination of the flavonoids diosmin and hesperidin methyl chalcone (HMC). Both flavonoids are derived from the citrus flavonoid hesperidin. HMC is a water-soluble, well-absorbed form of hesperidin, while diosmin is similar to hesperidin, yet has different clinical effects.

Diosmin HMC improves venous tone, increases lymphatic drainage, protects capillary bed microcirculation, and reduces capillary permeability. This potent combination also has anti-inflammatory activity that protects blood vessels from an over-active inflammatory response. Clinically, these activities result in improvement of varicose veins, chronic venous insufficiency, hemorrhoids, and lymphedema. In a clinical study of over 5,000 individuals with chronic venous insufficiency/varicose veins, study participants who took a diosmin and hesperidin complex similar to Diosmin HMC for six months had a significant improvement in their condition. Similar improvements have been seen in studies using diosmin for hemorrhoids and poor wound healing. Diosmin HMC is safe to use in pregnancy, a time when many women, suffering from hemorrhoids or varicose veins, need a natural, safe remedy.

other products to see: Venocap, HMC Hesperidin, Vitamin C with Flavonoids

Hesperidin is a flavonoid glycoside (one that contains a sugar molecule – in this case, a disaccharide called rutinose). Many experts believe flavonoids like hesperidin have a synergistic activity with vitamin C. Animal studies indicate hesperidin may lower blood lipids, increase the density and strength of bones, and reduce lymphedema. It may also increase capillary and venous strength. In addition, clinicians utilize hesperidin in allergies, as it reduces histamine release by mast cells. Hesperidin methyl chalcone is a water-soluble form of hesperidin.

HMC Hesperidin

well-absorbed antioxidant flavonoid

Hesperidin is the predominant flavonoid in lemons and oranges. While hesperidin itself is not very water soluble, Thorne's patented hesperidin methyl chalcone (HMC) form is highly soluble, allowing for greater absorption of the molecule from the gastrointestinal tract. As with all flavonoids, HMC is an antioxidant. It stabilizes histamine-releasing mast cells and inhibits the cataract-producing enzyme aldose reductase. In addition, HMC has anti-inflammatory and blood vessel-stabilizing effects.

Taken along with vitamin C, HMC was shown to significantly decrease the incidence of hot flashes in menopausal women. Although hesperidin methyl chalcone is included in Meta-Balance because of its ability to alleviate hot flashes, Meta-Balance also contains phytoestrogenic botanicals that might be contraindicated in some patients (those with a history of hormone-related cancers, for instance). Therefore, we offer hesperidin methyl chalcone as a stand-alone product.

HMC-Plus®

hesperidin methyl chalcone plus gambir catechins

In HMC Plus, the water-soluble, well-absorbed hesperidin methyl chalcone (HMC) is paired with the Malaysian herb gambir (*Uncaria gambir*). Gambir is a rich source of catechin flavonoids – potent antioxidant flavonoids similar to those found in green tea. Catechins are hepatoprotective and strengthen collagen by inhibiting the enzyme collagenase. This results in efficient production of connective tissue and more effective wound healing.

HMC Plus has traditional uses in liver support, osteoarthritis, and food allergies.

allergy support flavonoids women's formulas

HMC Hesperidin

Supplement Fa Serving Size: One CapsuleServings Per		
Each Capsule Contains:		% DV
Hesperidin Methyl Chalcone	250 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SB324 Dosage: 1 to 2 capsules tid

product data sheet

flavonoids allergy support

HMC-Plus®

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Gambir (leaf) (Uncaria gambir) 200 mg. * Hesperidin Methyl Chalcone 100 mg. *

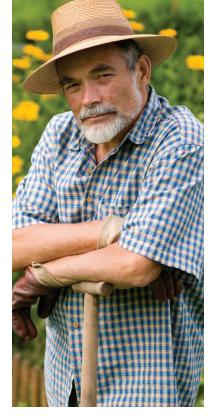
Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SB328 Dosage: 2 capsule tid

product data sheet

The Thome Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.



flavonoids allergy support respiratory support

Quercetone®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Quercetin Chalcone 250 mg. *

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SB330 Dosage: 1 to 2 capsules tid with

NOTE: Quercetin Chalcone is a water-soluble form of Quercetin. Protected under U.S Patent No. 5,977,184.

quercetin study article (5-6) quercetin & cancer article (5-3) quercetin monograph product data sheet

Quercetone®

a patented, well-absorbed, water-soluble guercetin

Widely distributed in the plant kingdom, quercetin is the most abundant of the flavonoid molecules. It is found in many often-consumed foods, including apples, onions, teas, berries, brassica vegetables, seeds, and nuts. Quercetin is thought to be an essential component of the medicinal activity of many plants. All flavonoid molecules are similar in their chemical structure; however, small changes in these molecules dramatically change their solubility, activity, and affinity for certain tissues. It appears quercetin is poorly absorbed; however, altering the molecule by removing an oxygen molecule from its center flavonoid ring – thus creating a chalcone – significantly increases the molecule's water solubility and absorption.

Quercetin appears to have many beneficial effects on human health, including cataract prevention and cardiovascular protection, as well as gastroprotective, antihistamine, antiviral, and anti-inflammatory activity. Both quercetin and quercetin chalcone demonstrate specific, potent antiproliferative activity. In a clinical study, quercetin supplementation resulted in a significant decrease in blood pressure in hypertensive individuals. Quercetin's mast cell-stabilizing effects make it an obvious choice for use in preventing histamine release in allergy cases, similar to the use of the synthetic flavonoid analogue cromolyn sodium. Studies show quercetin's ability to inhibit histamine release stimulated by IgE-dependent ligands.

A number of quercetin's effects appear to be due to its antioxidant activity. Quercetin scavenges oxygen radicals and inhibits the enzyme xanthine oxidase. It also inhibits oxidation of LDL cholesterol. By itself, and paired with vitamin C, quercetin reduced the incidence of oxidative damage to structures in skin and to neurons caused by glutathione depletion.

Conditions that may benefit from supplementation with water-soluble Quercetone, because of its anti-inflammatory, antihistamine, and antioxidant effects, include allergies, asthma, ulcers, gastritis, cardiovascular disease, and other chronic inflammatory conditions. In addition, its antioxidant activity and aldose reductase-inhibiting properties make it a useful addition to diabetic nutritional supplementation for prevention of cataracts and neurovascular complications.

other products to see: Quercenase, QC Nasal Spray

The flavonoid quercetin is practically ubiquitous in the plant community. It consists of a three-ringed structure with an oxygen molecule at the top of the middle flavonoid ring. It contains five hydroxyl groups, which gives it potent antioxidant activity. However, quercetin is poorly absorbed from an oral dose. Thorne's patented quercetin chalcone has an open center ring with another hydroxyl group attached, giving it greater water solubility and more antioxidant activity.

Quercenase® plant extracts with anti-inf

plant extracts with anti-inflammatory and antihistamine effects

Quercenase, a combination of quercetin chalcone and bromelain, is indicated to reduce allergy symptoms by providing anti-inflammatory activity in combination with antihistamine effects. Bromelain is a compound of proteolytic enzymes derived from the pineapple plant. It has anti-inflammatory, wound-healing, anti-platelet aggregation, mucolytic, protein-digesting, and immune-enhancing properties.

Quercetin chalcone and bromelain work synergistically to reduce inflammation associated with swollen nasal membranes. In addition to anti-inflammatory effects, bromelain provides mucolytic and antibiotic potentiating effects. In a clinical study of 124 patients hospitalized with chronic bronchitis, pneumonia or bronchopneumonia, bronchiectasis, or pulmonary abscess, those receiving bromelain orally showed a decrease in the volume and purulence of the sputum.

In humans, bromelain has been documented to increase blood and urine levels of antibiotics. Combined bromelain and antibiotic therapy has been shown to be more effective than antibiotics alone in a variety of conditions, including pneumonia, bronchitis, cutaneous Staphylococcus infection, thrombophlebitis, cellulitis, pyelonephritis, perirectal and rectal abscesses, and sinusitis.

other products to see: Ouercetone, OC Nasal Spray

flavonoids allergy support respiratory support

Quercenase®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains:		% DV
Quercetin Chalcone	250 mg.	*
Bromelain (2000 m.c.u./gm)	100 mg.	*

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SB332 Dosage: 1 to 2 capsules <u>tid with</u>

NOTE: Quercetin Chalcone is a water-soluble form of Quercetin. Protected under U.S Patent No. 5,977,184.

NOTE: Bromelain is derived from the pineapple plant.

quercetin study article (5-6) quercetin monograph bromelain monograph product data sheet

WARNING: Because bromelain has fibrinolytic effects, potentially inhibiting blood clotting, many practitioners advise avoiding it prior to surgery.

 $\ensuremath{\mathsf{NOTE}}\xspace$. Bromelain is derived from the pineapple plant.

The Thorne Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.



- → allergy relief for nasal mucosa in a convenient spray form
- → for stuffy nose, sneezing, watery discharge caused by rhinitis and sinusitis
- → relieves dry and inflamed nasal passages

allergy support flavonoids respiratory support

QC Nasal Spray

Active Ingredients:

Quercetin Chalcone 2x Euphorbium 6x

In an isotonic solution with potassium sorbate and benzalkonium chloride.

1 FL. OZ. (30 mL) Code: SB331 Dosage: 1 to 2 sprays in each nostril 3 to 5 times daily

NOTE: Quercetin Chalcone is a water-soluble form of Quercetin. Protected under U.S Patent No. 5,977,184.

quercetin monograph product data sheet

QC Nasal Spray™

a homeopathic nasal spray for allergy relief

Few things are more annoying than inhalant allergies. The pain and pressure of a stuffy or runny nose turns normal daily activities into truly miserable tasks. Thorne's QC Nasal Spray is a homeopathically-prepared nasal spray utilizing quercetin chalcone 2X and Euphorbium 6X, packaged in a one-ounce, metered-dose bottle.

The flavonoid quercetin blocks histamine release from mast cells and basophils, and inhibits the proinflammatory enzymes cyclooxygenase and lipoxygenase. Homeopathic indications for Euphorbium include hay fever, headache, fluent nasal discharge, stuffy nose, sneezing, and post-nasal discharge with a raw, sore throat.

QC Nasal Spray relieves the dry and inflamed nasal membranes and sinus passages, sneezing, stuffy nose, watery nasal discharge, and headache caused by rhinitis and sinusitis. And this unique homeopathic medicine goes to work right where the body needs it most – the nasal mucosa.

other products to see: Quercenase, Berbercap, Cysteplus

- → increased absorption from grape seed phytosome
- → oligomeric proanthocyanidins bound to phosphatidylcholine



0.P.C.-100™

now containing Leucoselect® Phytosome - grape seed extract rich in oligomeric proanthocyanidins bound to phosphatidylcholine for superior absorption

Leucoselect Phytosome markedly elevates blood total antioxidant capacity. In a randomized human trial, young healthy volunteers received Leucoselect Phytosome (containing 300 mg of Leucoselect every day), or a placebo. The blood Total Radical-trapping Antioxidant Parameter (TRAP - a measure of antioxidant activity) was measured at several time points during day one, then also on day five. Within 30 minutes after administration on day one, blood TRAP levels were significantly elevated, compared to placebo. Other studies on Leucoselect Phytosome supplementation have demonstrated a reduction in LDL cholesterol oxidation in heavy smokers, reduced oxidative stress in diabetics, and a reduction in oxidative stress after a fatty meal.

OPCs demonstrate important vascular protective effects. OPCs also have strong free radical scavenging ability, resulting in inhibition of oxidative damage and protection of blood vessels and other tissues. OPCs have been shown to inhibit oxidation of LDL cholesterol and to protect vascular endothelial cells from damage. The positive effects of OPCs on microcirculation are additionally attributed to decreased incidence of foam cells, markers of early stage atherosclerosis. OPCs also appear to strengthen the resistance of cell membranes to injury and degradation and bind copper and iron, thereby reducing their oxidative effects. A clinical study of 10 healthy volunteers examining the effect of OPC supplementation on markers of oxidative stress showed significantly increased levels of alpha-tocopherol in red blood cell membranes.

Evidence suggests OPCs stabilize collagen cross-linkage within skin and other connective tissues. OPCs have also been shown to decrease capillary permeability (thus decreasing bruising and telangiectasia) and block the effects of hyaluronidase, elastase, collagenase, and other enzymes that degrade connective tissue. Clinical studies demonstrate reduced swelling and improved healing time from sports injuries in athletes given OPCs prior to a sporting event.

other products to see: Collag-en, Venocap, Diosmin-HMC

flavonoids antioxidants peripheral vascular support musculoskeletal support

0.P.C.-100

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Grape Seed Phytosome (Vitis vinifera extract / Phosphatidylcholine complex) *Daily Value (DV) not established.

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.† Contains ingredient derived from soy (phytosome).

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF745 Dosage: 1 to 2 capsules bid

oligomeric proanthocyanidins article (5-2) oligomeric proanthocyanidins monograph product data sheet



flavonoids bone support women's health

Ipriflavone

Supplement Facts Serving Size: One CapsuleServings Per Container: 90			
Each Capsule Contains:		% DV	
Ipriflavone	200 mg.	*	
*Daily Value (DV) not established.			

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SB345 Dosage: 1 capsule tid

ipriflavone article (4-1) ipriflavone monograph product data sheet

Ipriflavone bone-building isoflavone

Ipriflavone, an isoflavone synthesized from the soy isoflavone daidzein, holds great promise in the prevention and treatment of osteoporosis and other metabolic bone diseases. It has been widely studied in humans and found effective for inhibiting bone resorption and enhancing bone formation, the net result being an increase in bone density and a decrease in fracture rates in osteoporotic women.

Over 60 human clinical trials have demonstrated ipriflavone's effectiveness, at a dose of 200 mg three times daily, in enhancing bone density. Over 150 studies on safety and effectiveness, both animal and human, have been conducted in Italy, Hungary, and Japan. One of the benefits of ipriflavone in the treatment of osteoporosis is its lack of direct estrogenic effect. Ipriflavone or placebo was given to a group of 15 postmenopausal women and compared to women taking estrogen. LH, FSH, prolactin, and estradiol were measured after a single oral dose of 600 or 1,000 mg, and after 7, 14, and 21 days of treatment with 600 or 1,000 mg doses. No differences in endocrine effect were noted between the ipriflavone and placebo groups. Vaginal cytology was unchanged after 21 days of IP or placebo compared to a significant increase in superficial vaginal cells in the estrogen group. Thus, ipriflavone appears to exert its effects specifically on bone.

Preliminary studies have also found ipriflavone effective in preventing bone loss associated with chronic steroid use, immobility, ovariectomy, renal osteodystrophy, and gonadotrophin hormone-releasing hormone agonists. In addition, it holds promise for the treatment of other metabolic diseases affecting the bones, including Paget's disease of the bone, hyperparathyroidism, and tinnitus caused by otosclerosis.

Ipriflavone may be used in conjunction with Thorne's Oscap formula for more bone building nutrients.

other products to see: Oscap, Oscap Plus, Calcium Citramate, D-5000, Vitamin K2

Soy Isoflavones unique, beneficial soy flavonoids

Soy has been a part of the human diet for millenia. The high intake of soy foods by Asian populations is thought to contribute to the low incidence of osteoporosis and cancers in these populations. Isoflavones are members of the large flavonoid family of plant compounds, which are in turn members of the larger group of plant constituents known as polyphenols. Soy isoflavones contain a number of isoflavones, but the most beneficial appear to be genistein and daidzein. Soy isoflavones weakly resemble estrogens and, as such, can bind to estrogen receptors, purportedly being able to occupy those receptors and block the effects of estrogen.

Soy isoflavones appear to exert a weak estrogenic effect upon binding to cell receptors. Estrogen-receptor binding may be the mechanism for some of their beneficial effects, particularly on osteoporosis and hot flashes. A study in perimenopausal women determined that an isoflavone-enriched soy protein providing 90 mg isoflavones daily slowed bone loss in the lumbar spine.

Considerable epidemiological evidence suggests soy isoflavones might offer protection from several types of cancer, including breast and prostate. The mechanisms of this activity are thought to be inhibition of protein tyrosine kinase, estrogen-receptor binding, antioxidant activity, and genistein's inhibition of angiogenesis. Isoflavones are also known to induce apoptosis (programmed cell death) in cancer cells.

Research shows intake of soy isoflavones may have a beneficial impact on incidence of cardiovascular disease. One mechanism for this is genistein's inhibition of thrombus formation. Soy protein has also been found to lower cholesterol and a meta-analysis suggests at least 70 percent of this effect is due to the isoflavone content. Many studies have also demonstrated soy isoflavones improve the health of blood vessels by increasing vascular endothelial nitric oxide production, which in turn inhibits platelet adhesion and thrombus formation, and improves vascular elasticity, resulting in vasodilation and improved blood flow.

other products to see: Perfusia-SR, Meta-Balance, HMC Hesperidin



flavonoids women's health

Soy Isoflavones

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Soy Isoflavones (from 500 mg Soy concentrate) 50 mg. *

Other Ingredients: Magnesium Citrate,[†] Hypromellose (derived from cellulose) capsule, Leucine,[‡] Silicon Dioxide.[†] Contains ingredient derived from soy.

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SB341 Dosage: 1 to 2 capsules qd

soy isoflavone article (2-6) soy isoflavone & bone health article (7-4) soy isoflavone monograph product data sheet



Vacimyr® bilberry flavonoids for eye health

Vaccinium myrtillus (bilberry) is also known as European blueberry or huckleberry. Several active medicinal constituents have been isolated from the berries and leaves of the bilberry plant, including anthocyanoside flavonoids (anthocyanins), vitamins, quercetin, and catechins. The anthocyanosides are considered the most important of the pharmacologically active components, and have been shown to possess antioxidant, collagen stabilizing, capillary strengthening, and platelet anti-aggregating activity. Bilberry extracts have been shown to inhibit the synthesis and release of leukotrienes, histamine, and prostaglandins, which results in an anti-inflammatory response.

The eye appears to benefit the most from this plant's various activities, as the anthocyanosides have an affinity for the pigmented epithelia of the retina. In this regard, historically bilberry was used to improve night vision. Clinically, bilberry extracts containing 25-percent anthocyanosides have been of significant benefit in the treatment of diabetic retinopathy and cataracts. Animal research shows prevention of macular degeneration with bilberry extract dosing. Other research suggests bilberry may be helpful in reducing blood glucose levels in diabetics. Cardiovascular health can also be improved with bilberry extract, as it has been demonstrated to reduce the oxidation of LDL cholesterol and improve nitric oxide-related vascular endothelial function, which results in increased blood flow.

flavonoids antioxidants ocular support

Vacimyr®

Supplement Facts Serving Size: One CapsuleServings Per Container: 45 Each Capsule Contains: % DV Bilberry extract (berry) (Vaccinium myrtillus) (25% anthocyanosides) 80 mg. * *Daily Value (DV) not established.

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

45 Vegetarian Capsules Code: SF748 Dosage: 1 to 2 capsules bid

ocular disorder article part I (4-5) ocular disorder article part II (6-2) vaccinium monograph product data sheet

other products to see: Ocu-Clear

- → all the potent antioxidant, antihistamine, and anti-inflammatory benefits of green tea, without the caffeine
- → exclusive green tea phytosome in a unique time-release matrix
- → increased bioavailablity



powerful antioxidant polyphenols containing Greenselect® Phytosome – a highly bioavailable complex of green tea polyphenols and phosphatidylcholine

A study on healthy volunteers compared absorption of a single 400-mg dose of green tea polyphenols as a non-complexed standardized extract Greenselect or as the same extract complexed with phosphatidylcholine – Greenselect Phytosome. Peak blood concentration of EGCG from the phytosome, measured over a period of six hours, was approximately double that of non-complexed green tea extract.

Green tea polyphenols are powerful antioxidants due to their particular flavonoid structures. Green tea polyphenols' anti-inflammatory activity results from inhibition of the production of arachidonic acid metabolites, including pro-inflammatory prostaglandins and leukotrienes.

Green tea has a thermogenic effect. Extracts of EGCG increase energy expenditure and fat oxidation, thus essentially burning calories. Greenselect Phytosome was tested in obese subjects (n=100) of both genders also on a low-caloric diet; 50 subjects were assigned to the green tea extract plus low-calorie diet, while the other 50 subjects followed the low-calorie diet only. After 90 days of treatment, significantly greater improvement in weight and body mass index were observed in the group taking Greenselect Phytosome compared to the diet-only group.

Green Tea Phytosome is a decaffeinated extract containing 250 mg per capsule of green tea polyphenols complexed with phosphatidylcholine.

flavonoids antioxidants oncology support immune support metabolic support

Green Tea Phytosome

Supplement Facts Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains: % DV

Green Tea Phytosome** (leaf) (*Camellia sinensis* extract

/ Phosphatidylcholine complex) 250 mg. *

Other Ingredients: High and low viscosity hydroxypropyl methylcellulose and CalciumCitrateLaurate, Hypromellose (derived from cellulose) capsule, Leucine, Silicon Dioxide. Contains ingredient derived from soy (phytosome).

**Green Tea Phytosome complexed with Time-Sorb® – a patent-pending, time release matrix.

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SB336 Dosage: 1 to 2 capsules tid

green tea & cancer article (4-5) liver article (4-3) green tea monograph product data sheet

other products to see: Planti-Oxidants

The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.



- potent free radical scavenger
- anti-inflammatory compound
- → collagen-stabilization for connective tissue repair

flavonoids hepatic support musculoskeletal support

Formula SB313

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Gambir (leaf) (Uncaria gambir†) 400 mg. *

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Silicon Dioxide. †

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SB313 Dosage: 1 to 2 capsules tid

product data sheet

Formula SB313

catechin flavonoids from Gambir

Catechins comprise a variety of flavonoid molecules found in high concentration in grape seeds and skins, green tea leaves, pine bark, cranberries, black acacia catechu, *Uncaria gambir* (pale catechu), and other plants. They are very potent free radical scavengers and are an important addition to the overall antioxidant balance in the body, along with vitamins A, C, and E, lipoic acid, glutathione, coenzyme Q10, and the minerals selenium and zinc. Due to their inhibition of the pro-inflammatory enzymes cyclooxygenase and lipoxygenase, they act as anti-inflammatory compounds. Catechins also have blood vessel and skin strengthening properties and anti-proliferative activity.

Catechins are hepatoprotective and have been used in acute hepatitis. Catechins also strengthen collagen by inhibiting the enzyme collagenase and increasing cross-links between collagen fibers in connective tissue. Gambir contains up to 33-percent catechin, with epicatechin, quercetin, catechutannic acid, and other substances making up the balance. Gambir also contains a unique flavonoid – gambiriin, a dimer flavonoid comprised of two catechin molecules. Gambir has traditional uses in diarrhea, hepatitis, allergies, and back pain.

other products to see: Traumogen, HMC-Plus

- → a unique combination of antioxidants
- → combat oxidative stress
- → now with phytosomes



Planti-Oxidants®

potent plant-based flavonoid antioxidants, now with three exception flavonoid-phytosome complexes – Greenselect® Phytosome (green tea), Siliphos® (milk thistle), and Leucoselect® Phytosome (OPC) for enhanced absorption

Free radical damage has been implicated in most disease processes.

Free radicals can attack, infiltrate, and injure vital cell structures, leading to a destructive chain reaction called lipid peroxidation. This series of reactions causes damage to the lipid layer of cell membranes and can even cause DNA breakage. Free radicals are produced as a result of normal biochemical processes, certain diseases, and environmental or dietary stress. An imbalance of pro-oxidant versus antioxidant processes (oxidative stress), which occurs more readily as we age, can cause cellular damage, contributing to chronic disease.

Flavonoid molecules found in pigmented fruits and vegetables are responsible for providing color and antioxidant activity to the plant. When these common plants are eaten, the antioxidant activity of their flavonoids is passed on to us. However, most individuals in the United States do not eat enough fruits and vegetables to get the full effect of their flavonoid content. Plant-based flavonoids have been found in numerous studies to exhibit antioxidant activity.

Planti-Oxidants is a combination of several of the best-researched flavonoid compounds, including silybin from milk thistle (Silybum marianum) as Siliphos, polyphenolic catechins from green tea as Greenselect Phytosome, oligomeric proanthocyanidins from grape seed extract as Leucoselect Phytosome, anthocyanidins from bilberry (Vaccinium myrtillus), and our patented flavonoid quercetin chalcone. These powerful plant antioxidants enhance the activity of nutrient-based antioxidants.

other products to see: Anti-Oxidant, Extra Nutrients , Green tea Phytosome

flavonoids antioxidants

Planti-Oxidants®

Each Capsule Contains:		% DV
Bilberry extract (Vaccinium myrtillus)		
(25% Anthocyanosides)	20 mg.	*
Silybin Phytosome (seed) (Silymarin ma	rianum extrac	t
/ Phosphatidylcholine complex)	50 mg.	*
Grape Seed Phytosome (Vitis vinifera ex	tract	
/ Phosphatidylcholine complex)	20 mg.	*
Green Tea Phytosome (Camellia sinensis	extract	
/ Phosphatidylcholine complex)	50 mg.	*
Quercetin Chalcone	50 mg.	*

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. † Contains ingredients derived from soy (phytosomes).

[†]A hypoallergenic ingredient used to fill space.

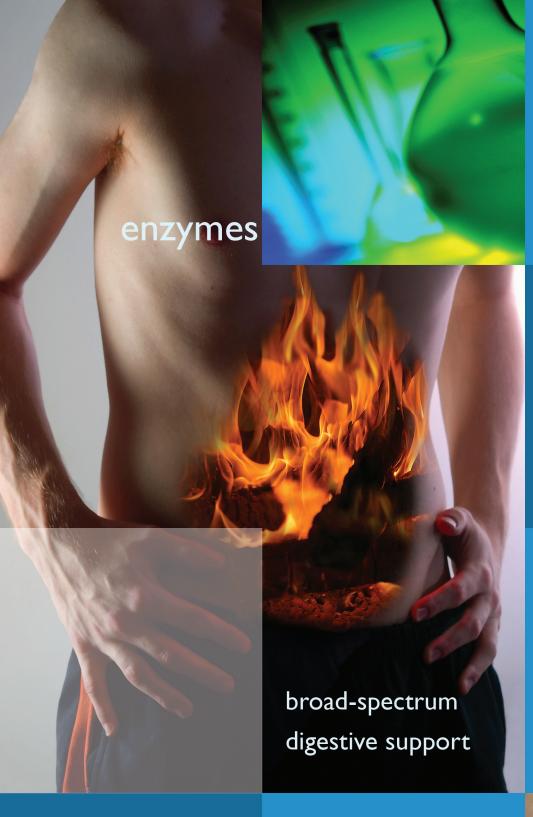
60 Vegetarian Capsules Code: SF701 Dosage: 1 to 2 capsules bid

NOTE: Quercetin Chalcone is a water-soluble form of Quercetin. Protected under U.S Patent No. 5,977,184.

flavonoid article (1-2) product data sheet

ANTIOXIDANT PRODUCT	TISSUE AFFINITY
ANTI-OXIDANT	General antioxidant support; phase I and II liver detoxification
PLANTI-OXIDANT	General antioxidant support (see individual ingredients for specific tissue affinity)
SILIPHOS	Particular affinity for the liver; efficiently incorporated into hepatic cell membranes because it is bound to phosphatidylcholine
G.TEX	Particular affinity for skin protection from U.V. radiation
OPC-30/OPC-100	Special affinity for blood vessels and collagen support
VACIMYR	Particularly benefits the eyes, especially the retina
QUERCETONE/QUERCENASE	Provides additional anti-inflammatory and antihistamine activity
R-LIPOIC ACID/ THIOCID/THIOCID-300	Antioxidant in both fat- and water-soluble environments; special affinity for nerve cell membranes and the liver
GLUTATHIONE-SR	Antioxidant with special importance for brain and liver functions
EXTRA NUTRIENTS	Complete multiple vitamin with extra antioxidant support
ULTIMATE -E	Provides antioxidant support in fat-soluble environments such as cell membranes; prevents oxidation of cholesterol for cardiovascular support
E-500	Because of its partially water-soluble nature, may provide antioxidant effects in both fat- and water-soluble tissues
PURE ASCORBIC ACID/PURE ASCORBIC ACID (1 GM)/BUFFERED C POWDER	Antioxidant in water-soluble environments, such as within the cell cytosol
SELENIUM PICOLINATE SELENIUM CITRATE	A co-factor for glutathione peroxidase; protects all cells from lipid peroxidation
ZINC PICOLINATE DOUBLE ZINC PICOLINATE/ZINC CITRATE	A co-factor for the endogenous antioxidant superoxide dismutase; helps prevent oxidative damage from too much iron

While antioxidants have broad activity within all cells or cell membranes of the body, certain antioxidant nutrients and botanicals appear to have a particular affinity for certain bodily tissues. This chart represents a very generalized approach to identifying tissue specificity, but by no means is an exhaustive list of organs or tissues that may benefit from a particular nutrient.



potent
proteolytic
enzymes for
inflammation

Indigestion affects millions of people everyday. Indigestion can be a sign of poor digestive enzyme activity. Situations such as illness, gall bladder removal, overuse of antacids, and aging contribute to insufficient secretion of hydrochloric acid, pancreatic enzymes, and bile, which affect digestive enzyme activity and can lead to heartburn, gas, bloating, and other symptoms of gastrointestinal discomfort.

improved protein digestion in the stomach

unlike many products on the market
Thorne products do not contain lactose (they never have).



Indigestion affects millions of people everyday. For some, eating fatty foods can bring on heartburn. For others, simple carbohydrates (like bread and pasta) may cause gas and bloating. And for other folks, spicy foods cause them grief.

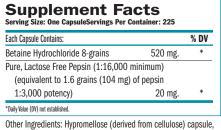
Although what we eat can greatly influence the frequency and severity of indigestion, this discomfort can be a symptom of a greater underlying problem.

Indigestion can be a sign of poor digestive enzyme activity. Situations such as illness, gall bladder removal, overuse of antacids, and aging contribute to insufficient secretion of hydrochloric acid, pancreatic enzymes, and bile, which affect digestive enzyme activity and can lead to heartburn, gas, bloating, and other symptoms of gastrointestinal discomfort. This, however, can just be the tip of the iceberg.

Maldigestion can result in chronic digestive problems and poor absorption of nutrients, leading to vitamin deficiencies (particularly fat-soluble vitamins like vitamins A, D, E, and K). Food allergies can develop when inadequately digested proteins are absorbed through the gut. As large proteins are absorbed intact, the body recognizes them as foreign and creates antibodies to them, resulting in an allergic response to the food. Food allergies have been implicated in a number of chronic conditions, including asthma, sinusitis, ear infections, irritable bowel syndrome, chronic fatigue, and arthritis. Therefore, if patients complain of indigestion, it is important they have adequate enzyme support in order to prevent further problems down the road.

digestive support

Betaine HCL & Pepsin



Uther ingredients: hypromeilose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

225 Vegetarian Capsules Code: SD415 Dosage: 1 to 2 capsules with each meal

also available 625 Vegetarian Capsules Code: SD414

HCl article (2-2) hydrochloric acid monograph product data sheet

WARNING: Avoid in patients with ulcers or gastritis.

Betaine HCL & Pepsin

for improved protein digestion in the stomach

Hydrochloric acid secretion assists protein digestion by activating pepsinogen to pepsin, renders the stomach sterile against orally-ingested pathogens, prevents bacterial or fungal overgrowth in the small intestine, and encourages the flow of bile and pancreatic enzymes. Hydrochloric acid also facilitates the absorption of a number of nutrients, including folate, vitamin B12, ascorbic acid, beta-carotene, non-heme iron, and some forms of calcium, magnesium, and zinc. Numerous studies have shown acid secretion declines with advancing age. Impaired HCl production and secretion are also associated with a number of clinical conditions, requiring long-term supplementation.

Hypochlorhydria and achlorhydria are conditions in which the production of hydrochloric acid in the digestive juices of the stomach is low or absent, respectively. Overuse of antacids can lead to hypochlorhydria (low stomach acid), which can result in poor protein digestion and the potential for development of allergies. Thorne offers HCl (hydrochloric acid) and pure pepsin from a porcine source. Unlike many supplement companies, the pepsin utilized in Thorne's product is pure, undiluted, and lactose-free.

BACK TO ALPHA INDEX

Bio-Gest®

for individuals needing both HCI and pancreatin

For those patients who may need the combination of ingredients found in Betaine HCl & Pepsin and Dipan-9, we offer Bio-Gest. Bio-Gest contains ox bile, which is important for those who have problems with fat emulsification and absorption – such as a patient whose gall bladder has been removed.

Because of their physiological role in the absorption of dietary lipids, bile salts are widely used for replacement therapy, in pathological conditions in which the concentration of bile acids in upper intestines is low, such as:

- → biliary fistula
- → disease of the ileum
- → hepatic or extra-hepatic cholestasis
- → to help lower cholesterol & triglycerides
- → a general aid in fat metabolism
- → gall bladder removal

Bio-Gest®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60				
Each Capsule Contains:		% DV		
Betaine Hydrochloride	240 mg.	*		
Glutamic Acid Hydrochloride	240 mg.	*		
Ox Bile concentrate	40 mg.	*		
Pure Pancreatin	70 mg.	*		
Pure Pepsin [1:16000 minimum]	35 mg.	*		
*Daily Value (DV) not established.				

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide.†

60 Vegetarian Capsules Code: SD404 Dosage: 1 to 2 capsules with each meal

> also available 180 Vegetarian Capsules Code: SD405

product data sheet

digestive support

BPP

broad-spectrum digestive support without ox bile

Aging, illness, and the overuse of antacids can each contribute to insufficient secretion of hydrochloric acid and pancreatic enzymes, resulting in incomplete digestion of food. This maldigestion can result in various health problems, including nutrient malabsorption, allergies, digestive problems (such as gas, bloating, and diarrhea), and vitamin deficiencies (particularly of the fat-soluble vitamins). Thorne offers hydrochloric acid (HCl) and pure pepsin. Unlike many supplement companies, the pepsin utilized in Thorne's product is pure, undiluted, and lactose-free. Thorne's pure pancreatin is also lactose-free and is the highest potency and purity possible. These elements are combined in one formula, B.P.P., to help aid in overall digestion. Consider this product for patients who may be low in hydrochloride production and have malabsorption of protein, carbohydrates, and fat. Fat malabsorption may manifest as fat in stool, nausea when eating fatty foods, or deficiencies of fat-soluble vitamins.

WARNING: Avoid in patients with ulcers or gastritis.

B.P.P.

Each Capsule Contains:		
Betaine Hydrochloride 8-grains	520 mg.	*
Pure, Lactose Free Pepsin (1:16,000 mi	nimum)	
(equivalent to 1.6 grains (104 mg)	of pepsin	
1:3000 potency)	20 mg.	*
Pure Pancreatin (porcine)	100 mg.	*
The Pancreatin in this capsule will typica	ally provide the follow	ing:
Amylase 25,000 NF Units		
Protease 23,000 NF Units		
Lipase 4000 NF Units		
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule. May contain one or more of the following hypoallergenic ingredients to fill space - Leucine, Silicon Dioxide.

Note: This pure Betaine is derived from a non-plant source. Note: This product does not contain lactose.

Note: Individuals with porcine allergies should not take this product.

180 Vegetarian Capsules Code: SD410 Dosage: 1 to 2 capsules with each meal

HCl article (2-2) hydrochloric acid monograph product data sheet

The Thorne Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

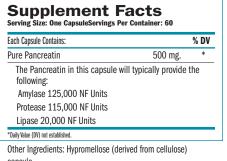
[†]A hypoallergenic ingredient used to fill space.

Equally important in prescribing a product is assuring the quality of the enzymes that your patients take. For example, lactose intolerance – due to a deficiency of the enzyme lactase – is a frequent reason for prescribing digestive enzymes. Yet many of the enzymes (pancreatin, pepsin, papain, and bromelain) on the market are actually diluted with hidden lactose! Why? Lactose is used as a means of diluting the potency of a digestive enzyme to meet a given specification. The U.S. Pharmacopeia calls for pepsin and pancreatin to have a particular digestive power. Anything greater than the U.S.P. requirement is listed on the label as 2X, 3X, etc. - meaning the product has twice or three times the digestive power required. Pure, raw pancreatin typically has a 9X digestive power. In other words, 9X or greater means the pancreatin is undiluted. Anything less than 9X is diluted, usually with lactose.

Healthcare providers should be aware that both prescription and non-prescription products might contain lactose. This possibility should be investigated if a patient responds adversely to the appropriate therapy with symptoms that include nausea, bloating, and abdominal cramping. Thorne Research products are hypoallergenic and do not contain lactose (they never have).

digestive support

Dipan-9



60 Vegetarian Capsules Code: SD400 Dosage: 1 to 2 capsules with each meal

> also available 180 Vegetarian Capsules Code: SD401

NOTE: Individuals with porcine allergies should not take this

NOTE: This product does not contain lactose.

product data sheet

WARNING: Avoid in patients with ulcers or gastritis.

Dipan-9®

the purest, undiluted pancreatin on the market

Pancreatin is a mixture of several digestive enzymes produced by the exocrine cells of the pancreas. It is composed of amylase, lipase and protease. This mixture is used to treat conditions in which pancreatic secretions are deficient, such as pancreatitis and cystic fibrosis. It has been claimed to help with food allergies, celiac disease, autoimmune disease, cancer, and weight loss.

Thorne's pure pancreatin is also lactose-free and is the highest potency and purity possible. Consider this product for patients who have malabsorption of protein, carbohydrates, and particularly fat. Fat malabsorption may manifest as fat in stool, nausea when eating fatty foods, or deficiencies of fat-soluble vitamins.

Thorne uses only pure, undiluted pancreatin.



Plantizyme[™] plant-based enzyme formula for digestive support

Maldigestion is an issue that can affect individuals of any dietary preference or persuasion. Although many enzyme formulas come from animal sources, there are alternative sources available that have demonstrated beneficial effect as a digestive aid. For individuals wanting a vegetarian-source digestive enzyme formula, Thorne's Plantizyme provides amylase, protease, lipase, cellulase, and lactase from a fungal source, *Aspergillus spp.*

Listed below are the general industry methods used to determine enzyme activity:

Amylase – SKB units (Sandstedt, Kneen and Blish), based on the digestion of starch over time.

Protease – HUT units (Hemoglobin Units), based on enzymatic hydrolysis of denatured hemoglobin.

Lipase – LU units (Lipase Units), based on lipolytic activity utilizing olive oil.

Cellulase – GD units (Guar gum or methylcellulose hydrolysis), based on reduced viscosity flow time against hydrolysis.

Lactase – FCC units (Food Chemicals Codex), based on liberation of o-nitrophenol.

digestive support

Plantizyme™

Supplement Facts Serving Size: One CapsuleServings Per Container: 90					
Each Capsule Contains:		% DV			
Amylase concentrate	19,000 SKB units	*			
Protease concentrate	47,000 HUT units	*			
Lipase concentrate	9000 Lipase units	*			
Cellulase concentrate	185 GD units	*			
Lactase concentrate	1400 FCC units	*			
*Daily Value (DV) not established.					

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

90 Vegetarian Capsules Code: SD403 Dosage: 1 to 2 capsules with each meal

product data sheet

WARNING: Avoid in patients with ulcers or gastritis.

	ction	rate Digeston Protein D	restion	sification	etic pH	Source
Lipid Dig	carbohyd	rate Digest Digest Di	lipidEni	leffcation Lowers Co	estic ort	i.

Dipan-9	Х	Х	Х			
Bio-Gest	Χ	Χ	Χ	Х	Х	
Betaine HCI/ Pepsin			Х		Х	
Plantizyme	Х	Х	Х			Χ
B.P.P.	Х	Х	Х		X	

[†]A hypoallergenic ingredient used to fill space.



digestive support musculoskeletal support wound healing

M.F. Bromelain®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60				
Each Capsule Contains:		% DV		
Bromelain (3200 m.c.u./gm)	500 mg.	*		
*Daily Value (DV) not established.				

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SB315 Dosage: 2 capsule tid

NOTE: Bromelain is derived from the pineapple plant NOTE: This product does not contain lactose.

bromelain article (1-4) bromelain monograph product data sheet

WARNING: Because bromelain has fibrinolytic effects, potentially inhibiting blood clotting, many practitioners advise avoiding it prior to surgery.

NOTE: Bromelain is derived from the pineapple plant.

- → lactose-free bromelain
- → potent anti-inflammatory
- → effective treatment for wound healing and bruising

M.F. Bromelain®

a mixture of potent proteolytic enzymes from pineapple

Bromelain is a general name given to a family of proteolytic enzymes derived from *Ananas comosus*, the pineapple plant. Bromelain's anti-inflammatory activity appears to be due to a variety of physiological actions. Evidence indicates that bromelain's action is in part a result of inhibiting the generation of bradykinin at the inflammatory site via depletion of the plasma kallikrein system, as well as limiting the formation of fibrin by reduction of clotting cascade intermediates. Bromelain has also been shown to stimulate the conversion of plasminogen to plasmin, resulting in increased fibrinolysis. These anti-inflammatory effects make bromelain an effective treatment tool for musculoskeletal inflammation of all types – from tendinitis to arthritis to myofascial pain.

Studies indicate the effects of orally administered bromelain include the reduction of edema, bruising, pain, and healing time following trauma and surgical procedures. The pain reduction effects of bromelain are probably related to its anti-inflammatory properties rather than direct analgesic effects. In one clinical study, patients with long bone fractures administered a proteolytic enzyme combination containing bromelain had less post-operative swelling and consumed fewer analgesics compared to patients given placebo. Bromelain has also been shown to reduce swelling, bruising, pain, and healing time in patients following dental surgeries. In a double-blind study of post-dental surgery patients, bromelain was found to decrease swelling to 3.8 days compared with seven days in patients given placebo. In addition, duration of pain was reduced to five days in the treatment group compared to eight days in the placebo group. In one trial, bromelain was reported to positively influence swelling, pain, and tenderness in patients with blunt injuries to the musculoskeletal system.

Aside from its documented anti-inflammatory activity, bromelain is of interest to plastic surgeons because of its ability to increase resorption rate of hematomas. Oral bromelain, given at the time of hematoma and for seven days thereafter, resulted in significantly faster hematoma resolution in the treatment group than in controls.

other products to see: Meriva, Quercenase, Phytoprofen, Neo-Cardio,

essential fatty acids



concentrated
omega-3 fatty acids
from cold-water
fish in fish
gelatin capsules



Undoubtedly due to widespread deficiency states, there are numerous and varied conditions that have been found to benefit from the addition of EFAs. Some of the best studied of these conditions include cardiovascular disease, inflammatory bowel disease, cognitive decline, asthma, rheumatoid arthritis, and diabetes/insulinresistance.

Because we know that no two patients are alike, at Thorne we offer a variety of essential fatty acid products to satisfy the varying needs of your patients.





Essential Fatty Acids for optimum cell-membrane support

- → maintain a healthy heart
- improve circulation
- → optimize serum lipid levels
- → improve chronic inflammatory conditions
- → maintain mobility of joints
- → improve poor memory
- → improve cognitive development in children

With the refinement of oils, reliance on fast foods, and increased consumption of saturated and hydrogenated oils and low-fat fare during the past several decades, the Western diet has become abysmally deficient in essential fatty acids (EFAs). Due to lack of EFAs in the diet or because of poor absorption, actual deficiency states are common, manifesting in a number of ways.

Undoubtedly due to widespread deficiency states, there are numerous and varied conditions that have been found to benefit from the addition of EFAs, either in the diet or via supplementation. Some of the best studied of these conditions include cardiovascular disease, hypertriglyceridemia, PMS, kidney disease, inflammatory bowel disease, osteoporosis, cognitive decline, asthma, rheumatoid arthritis, diabetes/insulin resistance, multiple sclerosis, psoriasis, and cancer prevention.

Because we know that no two patients are alike, at Thorne we offer a variety of essential fatty acid products to satisfy the varying needs of your patients.

Super EPA

concentrated omega-3 fatty acids from cold-water fish — in fish gelatin capsules

Adequate dietary availability of EPA and DHA is fundamental to brain function. EPA and DHA are important throughout adulthood, as well as during periods of increased brain growth that characterize prenatal and postnatal development. Dietary supplementation with DHA and EPA has proven beneficial for many of the known higher mental functions. Among the proven brain benefits of DHA/EPA are the perinatal development of visual and other sensory functions; perinatal emergence of cognitive function and maintenance throughout life; behavior management; and mood control (e.g., the mood swings of bipolar disorder or symptoms of major depressive disorder). DHA appears to influence brain development and cognition; whereas, EPA seems to be more influential on behavior and mood. In double-blind, randomized, controlled trials, EPA and DHA combinations have been shown to benefit attention deficit/hyperactivity disorder, autism, dyspraxia, dyslexia, and aggression. For the affective disorders, meta-analyses confirm benefits in major depressive disorder and bipolar disorder, with promising results in schizophrenia and initial benefit for borderline personality disorder. Accelerated cognitive decline and mild cognitive impairment correlate with lowered tissue levels of DHA/EPA, and supplementation has improved cognitive function.

Super EPA (an EPA/DHA fish oil supplement) has been one of our best-selling products for over two decades because of its exceptional purity and quality. Recent technology has provided us with an ultra-concentrated, ultra-pure fish oil material that enabled us to increase the amount of EPA and DHA in each gelcap. This more concentrated formula allows you to dispense the high-dose EPA and DHA that recent research says is indicated, without having to take extra capsules, resulting in better efficacy and patient compliance. As always, you can count on Thorne to provide the highest quality, purest fish oil available. Molecular distillation ensures removal of cholesterol and contaminants, including PCBs and heavy metals.

Another innovation from Thorne – no more bovine gelcaps! We are proud to introduce the first products in gelcaps made entirely from fish-derived gelatin.

other products to see: Krill Oil, Omega-3 w/ CoQ10, DHA, MediClear Plus



essential fatty acids cardiovascular support lipid support cognitive support mood enhancement kidney support oncology support

Super EPA

**Daily Value (DV) not established.

Supplement Facts Serving Size: One GelcapServings Per Container: 90 Each Gelcap Contains: % DV Calories 10 Calories from Fat 10 **Total Fat** 3%* 1 g. 0%* Saturated Fat 0 g. Trans Fat 0 g. 0%* 425 mg. EPA (Eicosapentaenoic Acid) DHA (Docosahexaenoic Acid) 270 mg. * Percent Daily Values are based on a 2,000 calorie die

Other Ingredients: Gelatin (from tilapia, tuna, perch and catfish), and glycerin (vegetable source) gelcap, vitamin E (mixed tocopherols).

Contains ingredient derived from fish (gelatin = tilapia, tuna, perch and catfish) (fish oil = anchow, sardine, mackerel).

90 Fish Gelatin Gelcaps Code: SP608 Dosage: 2 gelcaps tid

EFA article (1-3) omega-3 & cognitive article (12-3) fish oil monograph product data sheet

Introducing Fish Gelatin Softgels!

Over five years ago Thorne was one of the first dietary supplement manufacturers to switch to vegetarian hard gelatin capsules. However, the technology at that time did not allow us to switch to a non-bovine gelatin source for our softgel capsules.

We at Thorne Research are very proud to announce the conversion of our softgel capsules to a fish-based gelatin source!

At this time Formula SF722, Black Currant Oil, Omega Plus, Omega-3 with CoQ10, Krill Oil and CoQ10 Softgel products are in the new fish-based softgels.

This change is another example of our commitment to you and your patients to provide the purest, safest dietary supplements in the professional market.

Contact customer service for current information.



Interest in the health benefits of cold-water fish oil has greatly increased since a landmark study over two decades ago on Greenland Eskimos found this population had low rates of heart disease, despite ingestion of high amounts of fatty fish. Unfortunately, the typical U.S. diet is practically devoid of omega-3 fatty acids from fish, resulting in an overabundance of pro-inflammatory omega-6 fatty acids and very little omega-3 (approximate omega-3 to omega-6 dietary ratio of 1:20). The essential omega-3 fats from fish, including EPA and DHA, are converted in the body into molecular messenger molecules (cytokines) beneficial to the cardiovascular and neurological systems. Fish oil has been found, in both epidemiological and clinical studies, to decrease the incidence of cardiovascular disease, possibly by lowering triglycerides, decreasing platelet aggregation, and reducing the production of inflammatory cytokines. In addition to direct effects on triglycerides, studies have found fish oils decrease insulin resistance another risk factor for cardiovascular disease - by enhancing glucose storage in the liver. Fish oil supplementation also increases endothelial nitric oxide production, which promotes vasodilation, increases blood flow, and is vasculoprotective. Ingestion of fish oil also stabilizes cardiac rhythmicity. In epidemiological studies, populations that eat more fish have a lower incidence of depressison, and intervention studies using fish oil show a reduction of depression.

Omega Plus™

therapeutically-balanced omega-3 and omega-6 fatty acids - now 67% more omega-3 per gelcap

While omega-3 fatty acids have significant health benefits, the omega-6 fatty acid gamma-linolenic acid (GLA) offers similar anti-inflammatory, vasodilatory, smooth muscle relaxing, and anti-platelet aggregation effects. Borage oil is a rich source of GLA – higher than evening primrose oil. Omega Plus provides an omega 3:6 ratio designed to provide a healthful balance of these important EFAs. Because the typical diet contains significantly more omega-6 than -3 fatty acids, fish oils make up a greater percentage of the product. Clinical studies yielding positive benefits from the combination of omega-3 fatty acids and GLA include cardiovascular disease, asthma, acute respiratory distress syndrome, and osteoporosis. Studies have found a combination of GLA with EPA and DHA improves LDL:HDL ratios and triglyceride levels. Now Omega Plus contains 300 mg EPA and 200 mg DHA in each gelcap. Greater concentration for more efficient dosing.

other products to see: Black Currant Oil, Super EPA

Omega-3 w/CoQ10

easy combination dosing of omega-3 and CoQ10

Research on fish oil demonstrates its role in the prevention of cardiovascular disease. Omega-3s from fish oil have been found to decrease the severity and frequency of arrhythmias, decrease the tendency to form blood clots, and lower cholesterol and triglyceride levels.

Quite often, individuals needing fish oil supplementation for cardiovascular support can benefit from the antioxidant and energy-promoting activity of coenzyme Q10. Omega-3 w/CoQ10 combines high-potency fish oil concentrate, with 30 mg CoQ10 in each fish-gelatin softgel capsule. At the typical dosage range of 2 - 6 capsules daily, that's 60-180 mg of CoQ10 daily.

In the current debate over CoQ10 absorption, it appears CoQ10 is best absorbed when delivered in an oil medium. Therefore, combining CoQ10 with fish oil provides the benefits of both substances and enhances the absorption of CoQ10. This product is available in fish gelatin gelcaps!

other products to see: Super EPA, CoQ100 Softgels, Q10 Plus

Omega Plus™

Each Gelcap Contains:		% DV
Calories	10	
Calories from Fat	10	
Total Fat	1.1 g.	2%*
Saturated Fat	0.3 g.	2%*
GLA (Gamma Linolenic Acid) from Bor	age Oil 40 mg.	**
EPA (Eicosapentaenoic Acid)	300 mg.	**
DHA (Docosahexaenoic Acid)	200 mg.	**

Other Ingredients: Gelatin (from tilapia) and glycerin (vegetable source) gelcap, vitamin E (mixed tocopherols).

Contains ingredient derived from fish (gelcap = tilapia) (EPA/DHA = anchow, sardine, mackerel).

90 Fish Gelatin Gelcaps Code: SP607 Dosage: 2 gelcaps tid

GLA monograph fish oil monograph product data sheet

essential fatty acids cardiovascular support neurological support oncology support

Omega-3 with CoQ10

Supplement Facts Serving Size: One GelcapServings Per Container: 90

Each Gelcap Contains:		% DV
Calories	10	
Calories from Fat	10	
Total Fat	1.5 g.	2%*
Saturated Fat	0 g.	0%*
Trans Fat	0 g.	0%*
EPA (Eicosapentaenoic Acid)	450 mg.	**
DHA (Docosahexaenoic Acid)	180 mg.	**
Coenzyme Q10	30 mg.	**
* Percent Daily Values are based on a 2,000 calorie diet.		

Other Ingredients: Gelatin (from tilapia, tuna, perch and catfish) and glycerin (vegetable source) gelcap, vitamin E (mixed tocopherols), zinc oxide, riboflavin (vitamin B2).

Contains ingredient derived from fish (gelatin = tilapia, tuna, perch and catfish) (fish oil = anchow, sardine, mackerel).

90 Fish Gelatin Gelcaps Code: SP616 Dosage: 1 - 2 gelcaps tid

omega-3 article (12-3) coenzyme Q10 monograph product data sheet

BACK TO ALPHA INDEX

essential fatty acids lipid support women's health cardiovascular support

Krill Oil

Each Gelcap Contain:		% DV
Calories	4.3	
Calories from Fat	3.2	
Total Fat	0.4 g.	0.5%*
Saturated Fat	0.2g.	1%*
Trans Fat	0 g.	0%*
Cholesterol	8 mg.	3%
EPA (eicosapentaenoic acid)	75 mg.	**
DHA (docosahexaenoic acid)	45 mg.	**
Omega-6 Fatty Acids	10 mg.	**
Omega-9 Fatty Acids	30 mg.	**
Phospholipids	200 mg.	**
Astaxanthin	0.8 mg.	**

Other Ingredients: Gelatin (gelatin, water and glycerin) gelcap. Contains ingredient derived from shellfish (krill).

> 60 Fish Gelatin Gelcaps Code: SP612 Dosage: 1 to 2 gelcaps bid

> > krill article (8-2) krill article (9-4) product data sheet



omega-3 fatty acids bound to important cell membrane phospholipids from Antarctic krill

Krill Oil is a unique source of omega-3 essential fatty acids extracted from Antarctic krill. A zooplankton crustacean, krill is rich in the omega-3 oils EPA and DHA, as well as phospholipids, flavonoids, and the carotene astaxanthin. The EPA and DHA in krill oil are already incorporated into phospholipid molecules – phosphatidylcholine, -inositol, and -ethanolamine, with a fatty acid profile closely resembling that of brain phospholipids. This makes krill oil highly absorbable and bioavailable, as these essential fatty acids do not have to be converted in the body into cell membrane-ready phospholipids.

A study comparing the effects of Neptune Krill Oil™ (NKO; the raw material used by Thorne) to fish oil found NKO significantly decreased total cholesterol, LDL cholesterol, and triglycerides. Compared to fish oil, 1.5 g NKO was more effective than 3 g fish oil in reducing LDL cholesterol and glucose.

Another study found 300 mg NKO daily significantly reduced C-reactive protein in patients with inflammation. An animal study found NKO provided effective prevention of UV-induced skin cancer.

A study comparing the effects of NKO to regular fish oil found NKO to be superior for dysmenorrhea and the emotional symptoms associated with PMS. Data analysis showed a significant reduction of the number of analgesics used for dysmenorrhea within the NKO group (comparing baseline vs. 45- vs. 90-day visit). The between-groups analysis illustrated that women taking NKO consumed significantly fewer analgesics during the 10-day treatment period than women receiving omega-3 fish oil.

Thorne's Krill Oil is an exceptionally pure product – with no measurable mercury, lead, cadmium, or PCBs. Krill Oil is also a highly stable product without the use of preservatives. Its high bioavailability allows lower dosages (typically 1 to 2 capsules twice daily). Krill Oil causes no Gl upset or "fish oil burping." Krill is harvested in Antarctica in compliance with the landmark Antarctic Treaty, which strictly regulates the annual krill harvest to protect sea animals that depend on krill for food.



other products to see: Super EPA

DHA

vegetarian-source omega-3 fatty acid essential for brain development and function

Docosahexaenoic acid (DHA) is a naturally occurring omega-3 essential fatty acid found in fish and some algae. It is a downstream metabolite of eicosapentaenoic acid (EPA). Some interconversion exists between DHA and EPA, so if there is a deficit of one it can be made up if the other is present. DHA is essential for proper brain and retinal function.

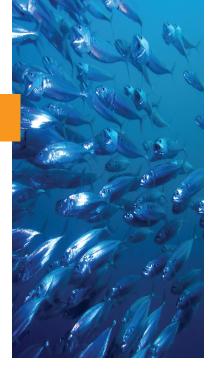
DHA's benefit in brain development in infants and children is clearly understood. Rapid growth of the human brain occurs in the latter part of pregnancy and the first months after birth, and infants rely on maternal intake of DHA for proper brain development. Human trials have demonstrated DHA supplementation during pregnancy and lactation results in improved mental processing, intelligence, and achievement scores in young children. Studies of human infants suggest DHA intake is vital for normal brain development and may be protective against certain neurodevelopmental disorders. The inability to convert other essential fatty acids to DHA has been implicated in attention deficit disorder.

With aging, DHA levels in brain phospholipids and plasma diminish, and decreased levels have been associated with a decline in cognitive function, specifically in terms of learning and memory. DHA deficiency may be an etiological factor for diseases characterized by abnormal neuronal signal transduction, such as Alzheimer's disease and depression. Research suggests DHA repletion in the elderly may be of benefit because it has the potential to improve nerve signaling, possibly translating to improved cognitive function.

DHA crosses the blood-brain barrier, protecting cell membranes from toxin-induced oxidative damage, particularly from organophosphate and carbamate pesticides. Individuals who can benefit from DHA supplementation include those undergoing detoxification from pesticides. exposed to organophosphates, carbamate, or pyrethroid pesticides, or experiencing neurological problems secondary to chemical toxin exposure.

Thorne offers algae-derived DHA for those who prefer a non-fish source of this pure omega-3 fatty acid.

other products to see: Super EPA, Omega Plus, Pesticide Protector



essential fatty acids cognitive support detoxification

DHA

Each Gelcap Contains:		% DV
Calories	5	
Calories from Fat	5	
Total Fat	0.5 g.	<1%
Saturated Fat	0 g.	0%
DHA (docosahexaenoic acid froi	n algae oil) 250 mg.	**

Other Ingredients: Olive oil, Ascorbyl Palmitate (vitamin C) and d-Alpha Tocopherol (vitamin E) as antioxidants, in a gelatin capsule (gelatin, water, and glycerin).

> 90 Gelcaps Code: SP609 Dosage: 1 gelcap tid

cognitive & omega 3 article (12-3) detox booklet

product data sheet



essential fatty acids women's health dermatology

Black Currant Oil

Each Gelcap Contains:		% DV
Calories	6	
Calories from Fat	6	
Total Fat	0.6 g.	1%*
Saturated Fat	0 g.	0%
Trans Fat	0 g.	0%
Gamma Linolenic Acid		
(from Black Currant Oil)	100 mg.	**

Other Ingredients: Gelatin (from tilapia) and glycerin (vegetable source) gelcap, vitamin E (mixed tocopherols).
Contains ingredient derived from fish (tilapia).

60 Fish Gelatin Gelcaps Code: SP602 Dosage: 2 gelcaps bid - tid

> also available 180 Fish Gelatin Gelcaps Code: SP604

> > GLA monograph product data sheet

Black Currant Oil

a rich source of gamma linolenic acid

Black Currant Oil is an excellent source of gamma-linolenic acid (GLA), containing 18-percent GLA. In addition, it contains 9-percent stearidonic acid, a precursor to the omega-3 fatty acid EPA. GLA formation is dependent on the activity of the delta-6-desaturase enzyme, which is hindered by numerous factors, including aging, nutrient deficiency, trans-fatty acids, hydrogenated oils, smoking, and excessive alcohol consumption.

Infants appear to lack sufficient delta-6-desaturase activity. Whereas breast milk is high in GLA, infant formula is not. This can lead to a deficiency in formula-fed infants. GLA-deficient infants present with dryness, desquamation and thickening of the skin, and growth failure. In a screening study on a Japanese population with high rates of atrophic gastritis, individuals with gastritis had significantly lower GLA levels than individuals without gastritis.

GLA has been found to provide benefit for a wide variety of conditions, including rheumatoid arthritis, atopic eczema, premenstrual syndrome, diabetic neuropathy, dry eye syndrome, and attention deficit disorder. GLA exerts an anti-thrombotic effect by decreasing platelet aggregation and thromboxane formation.

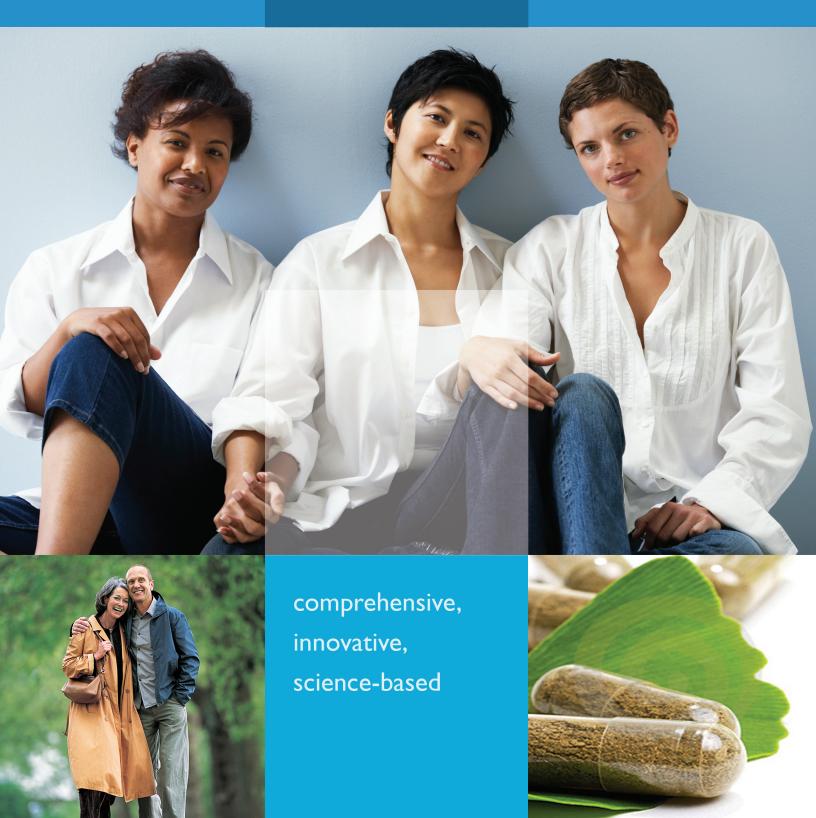
Because of the smooth muscle relaxing and anti-inflammatory effects of GLA, it has been found to benefit both PMS and dysmenorrhea. In addition, GLA plus EPA may provide protection from osteoporotic fracture. A placebo-controlled trial examined the effect of either a combination of GLA/EPA or placebo (coconut oil) for 18 months on 65 elderly women with osteoporosis. In addition, all women were given 600 mg calcium carbonate daily. After 18 months, femoral bone density increased by 4.7 percent and lumbar spine density remained the same in the treatment group, while in the placebo group femoral bone density remained the same and lumbar spine density decreased 3.2 percent.

In a six-month trial, 34 patients took daily doses of 10.5 g black currant seed oil (containing 2.0 g GLA) or placebo (soybean oil). Patients maintained NSAIDs and/or corticosteroid treatment throughout the study. Individuals in the treatment group who completed the study demonstrated significant improvement in joint tenderness scores compared to those on placebo who experienced no change.

other products to see: Omega Plus

specialty formulas

Thorne provides unique, science-based formulas designed to provide nutritional support a wide range of indications; from heavy metal detoxification, to menopause, and from various cardiovascular problems to memory loss or neuroendocrine support. Each product is created for optimum results and manufactured to exacting standards as only Thorne provides.





antioxidants

Anti-Oxidant

Supplement Facts Serving Size: Three CapsulesServings Per Container: 2

Three Capsules Contain:	•	% DV
Vitamin C (as Ascorbic Acid)	200 mg.	333%
Thiamine (as Thiamine HCI)	80 mg.	5333%
Riboflavin (as Riboflavin 5'- Phosphate)	36.5 mg.	2147%
Niacin (as Niacinamide)	180 mg.	900%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	33.8 mg.	1690%
Pantothenic Acid (as Calcium Pantothena	te) 59 mg.	590%
Zinc (as Zinc Picolinate)	15 mg.	100%
Selenium (as Selenium Picolinate)	225 mcg.	321%
Dimethylglycine (DMG)	75 mg.	*
R-Lipoic Acid	25 mg.	*
Reduced Glutathione	50 mg.	*
N-Acetyl-L-Cysteine	81 mg.	*
Glutamic Acid	45 mg.	*
Glycine	23 mg.	*
*Daily Value (DV) not established		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF702 Dosage: 1 to 2 capsules tid

> antioxidant article (4-5) antioxidant article (5-2) product data sheet

Anti-Oxidant

broad-spectrum antioxidant formula with phase I and II detoxification cofactors

Anti-Oxidant has long been one of our best sellers. Instead of the basic A, C, E, selenium combination, Anti-Oxidant provides nutrients that support the body during hepatic and systemic detoxification. Vitamin C, thiamine, riboflavin, niacin, vitamin B6, pantothenic acid, zinc, and selenium work collectively as cofactors in many enzyme systems to support metabolism and detoxification. Vitamin C directly protects fat-soluble vitamins A and E and some B vitamins from oxidation.

A number of amino acids and other organic acids are essential for detoxification of free radicals. Most research on dimethylglycine (DMG) has demonstrated its ability to enable tissues to improve oxygen utilization, ultimately protecting the body from free radical damage created by stress. N-acetylcysteine replenishes the body's glutathione levels by providing the rate-limiting substrate for glutathione synthesis. Glutamic acid is converted endogenously to glutathione and glutamine, and is most helpful in clearing potentially toxic ammonia by-products. Alpha-lipoic acid is a readily absorbed antioxidant that exerts its action in both fat- and watersoluble mediums. This formula provides lipoic acid in the all-natural, most bioavailable form - R-lipoic acid. Reduced glutathione (GSH) is an essential cofactor for many detoxification and antioxidant enzyme systems. In addition to the potent antioxidant capacity of glutathione, GSH status in the body is a highly sensitive indicator of cell function and viability. GSH depletion is linked to many chronic disease states. Glycine is an important amino acid, supporting hepatic detoxification and enhancing endogenous glutathione levels.

other products to see: Planti-Oxidants, Extra Nutrients, Glutathione-SR

pure adrenal cortex tissue in a capsule

The adrenal cortex is responsible for producing a special group of hormones known as corticosteroids. These hormones are comprised of glucocorticoids, mineralcorticoids, and 17-ketosteroids, and are essential for key homeostatic processes throughout the body. Glucocorticoids are necessary for healthy glucose metabolism, immune and anti-inflammatory response; cortisol is a glucocorticoid. Mineralcorticoids maintain healthy electrolyte balance and regulate blood pressure; the primary mineralcorticoid is aldosterone. The 17-ketosteroids, the primary hormone being dehydroepiandrosterone (DHEA), are associated with sex hormones produced by the adrenal glands.

other products to see: Cortrex, Cortine, Phytisone, Dehydrone

adrenal support

Adrenal Cortex

Supplement For Serving Size: One CapsuleServings Per		
Each Capsule Contains:		% DV
Adrenal Cortex (Bovine)	50 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SG803 Dosage: 1 to 2 capsules bid

product data sheet

Arabinex®

excellent fiber source with immune-stimulating effects

Larch arabinogalactan, a polysaccharide powder derived from the wood of *Larix occidentalis* (Western larch), possesses important immune-enhancing properties and is an excellent fiber source. It enhances colon health by increasing butyrate concentrations and levels of beneficial intestinal anaerobes.

Larch arabinogalactan may be an effective adjunct to cancer therapies due to its ability to enhance NK-cell cytotoxicity, stimulate the immune system, and inhibit metastasis. Chronic diseases characterized by decreased NK-cell activity – including chronic fatigue syndrome, viral hepatitis, HIV/AIDS, and autoimmune diseases such as multiple sclerosis – may also benefit from larch arabinogalactan supplementation.

In pediatric patients, decreased incidence and severity of otitis media have been observed with prophylactic supplementation of larch arabinogalactan. Its mild taste and excellent solubility in water or juice make it a relatively easy therapeutic tool for use in pediatric populations.

immune support

Arabinex®

Supplement Fa Serving Size: One ScoopServings Per Co	acts ontainer: 21	
Each (4.7 g) Scoop Contains:		% DV
Calories	17	
Total Carbohydrates	4 g.	<2%*
Arabinogalactans (from Larch)	4.7 grams	**
* Percent Daily Values are based on a 2,000 calorie diet. **Daily Value (DV) not established.		

This product contains no flavorings or sweeteners.

NET WT. 3.5 OZ. (100 G) Code: SP619 Dosage: Adult - 1 to 3 scoops daily

arabinogalatans article (4-2) arabinogalatans article (7-2) larch arabinogalactans monograph product data sheet



musculoskeletal support

AR-Encap®

Supplement Fac Serving Size: Eight Capsules Servings Pe	cts r Container: 30	
Eight Capsules Contain:		% DV
Glucosamine Sulfate	1500 mg.	*
MSM (Methyl Sulfonyl Methane)	1700 mg.	*
Boswellia serrata extract (gum)		
(60% Boswellic acids)	700 mg.	*
Curcumin Phytosome (root) (Curcuma	longa	
/ Phosphatidylcholine complex)	500 mg.	*
Devil's Claw (root)		
(Harpagophytum procumbens)	400 mg.	*
*Daily Value (DV) not established		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.† Contains ingredient derived from shellfish (crab and/or shrimp). Contains ingredient derived from soy (phytosome).

 $^{\dagger}\!A$ hypoallergenic ingredient used to fill space.

240 Vegetarian Capsules Code: SF774 Dosage: 2 to 4 capsules bid

osteoarthritis article (4-5) rheumatoid arthritis article (4-6) osteoarthritis article (9-3) product data sheet

AR-Encap®

comprehensive joint support to reduce inflammation and help repair damaged cartilage – now with Meriva® Curcumin Phytosome

AR-Encap is a comprehensive joint support formula that goes beyond simple glucosamine supplementation. This formula supplies the recommended daily dose of glucosamine in combination with other anti-inflammatory and joint-protecting nutrients and botanicals.

Methyl sulfonyl methane (MSM), also known as dimethyl sulfone (DMSO $_2$) and methyl sulfone, is an organic sulfur-containing compound that occurs naturally in a variety of fruits, vegetables, grains, and animals including humans. MSM possesses anti-inflammatory activity.

Curcumin, the principal polyphenol in the Indian spice turmeric, exerts potent anti-inflammatory effects. Mechanisms of action include inhibition of proinflammatory eicosanoid formation by its inhibitions of lipoxygenase and cyclooxygenase. Curcumin has the potential to positively impact autoimmune diseases such as rheumatoid arthritis by regulating inflammatory cytokines such as IL-1beta, IL-6, IL-12, TNF-alpha and IFN-gamma and associated signaling pathways, including NF-kappaB, in immune cells. Curcumin exhibits direct anti-inflammatory effects by inhibiting pro-inflammatory arachidonic acid and neutrophil function. This extract from turmeric has been found to be as effective as cortisone and phenylbutazone in acute inflammation, one-half as effective as these drugs for chronic inflammation, and more potent than ibuprofen as a stabilizer of lysosomal membranes.

Glucosamine can provide relief from pain and inflammation associated with arthritis. In trials where glucosamine sulfate has been compared to NSAIDS, long-term reductions in pain are greater in patients receiving glucosamine sulfate. In addition to symptom relief, glucosamine supplementation may actually retard progression of joint disease by rebuilding damaged cartilage.

In addition to glucosamine sulfate, MSM, and curcumin, AR-Encap contains the potent anti-inflammatory botanicals Boswellia and devil's claw. Boswellia appears to specifically inhibit pro-inflammatory 5-lipoxygenase activity. Extracts of devil's claw have been found to exert significant and dose-dependent anti-inflammatory and analgesic effects in animal studies. In a double-blind study of patients with osteoarthritis, an herb/nutrient formula, whose main anti-inflammatory ingredients were Boswellia and curcumin, resulted in significant pain reduction in the active treatment group compared to placebo.

other products to see: Glucosamine Sulfate, Phytoprofen, MSM-750, Meriva, MediClear Plus

Artecin®

antiparasitic herbal extract

Artemesia annua (Chinese wormwood or Sweet Annie), a member of the Compositae family, acts as a bitter and carminative, and has been used traditionally to treat fevers and for the nutritional support of the gastrointestinal tract. It is particularly favored for its antiparasitic effects. It can also improve digestion by enhancing secretion of digestive enzymes and bile.

gastrointestinal support

Artecin®

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
Each Capsule Contains:		% DV
Sweet Annie (stem/leaves)		
(Artemisia annua)	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule.

90 Vegetarian Capsules Code: SF736 Dosage: 1 to 2 capsules tid

product data sheet

Bacopa

Ayurvedic botanical for cognitive function

Bacopa monniera, a nerve tonic from Ayurvedic medicine, has traditionally been used to improve learning, enhance memory, and relieve anxiety and seizures. It has been shown to have neuro-protective and antioxidant properties. The active constituents for cognitive function appear to be saponins called bacosides. Although memory can improve with short-term dosing, it appears chronic (2-3 month) supplementation with Bacopa may be necessary for maximum cognitive-enhancing benefits to be demonstrated. Bacopa has been studied in adults and in normal children, as well as children diagnosed with attention deficit/hyperactivity disorder. Modern Bacopa research confirms its effects on anxiety, which might be mediated by an increase in the brain's level of the inhibitory neurotransmitter GABA (gamma-aminobutyric acid).

other products to see: Memoractiv, Nutri-ADD

cognitive support neuroendocrine support

Bacopa

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Bacopa monniera extract (leaf) (20% Bacosides) 200 mg. * *Daily Value (DV) not established.

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF728 Dosage: 1 to 2 capsules qd

cognitive function article (4-3) bacopa monograph product data sheet CK TO ALPHA INDEX Thome

Thorne Research specialty formula products — page 113



men's health prostate support

Basic Pygeum Herbal

Each Capsule Contains:		% DV
Pygeum extract (bark) (Prunus africanus)	25 mg.	*
Saw Palmetto extract (fruit) (Serenoa repe	ens)	
(85% fatty acids and sterols)	50 mg.	*
L-Alanine	100 mg.	*
Glycine	100 mg.	*
L-Glutamic Acid	100 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF761 Dosage: 2 capsules bid

> BPH article (1-1) pygeum monograph serenoa monograph product data sheet

Basic Pygeum Herbal botanical and amino acid blend for a healthy

prostateBasic Pygeum Herbal contains plant-based substances important for the health of the prostate. Saw palmetto and Pygeum have been shown to

inhibit the activity of 5-alpha reductase and reduce the size of the prostate. The amino acids alanine, glycine, and glutamic acid have been added for their ability to reduce prostate size.

Interest in *Pygeum africanum* began in the 1700s when European travelers learned from South African tribes how to soothe bladder discomfort and treat "old man's disease" with the bark of *P. africanum*. Pygeum bark extract has been used in Europe since the mid-1960s to treat men suffering from benign prostatic hyperplasia (BPH), and is backed by many double-blind studies pointing to its efficacy for reducing its symptoms.

Serenoa repens, also known as saw palmetto, is native to the southeastern United States, Southern Europe, and North Africa. Traditional indications for the use of saw palmetto include: cystitis, chronic bronchitis, asthma, diabetes, dysentery, and indigestion. The berries have also been thought to be an aphrodisiac. Modern usage of saw palmetto is overwhelmingly for the treatment of BPH.

other products to see: Serenoa Gelcaps



Berbercap®

direct broad-spectrum antimicrobial activity

Berberine is an alkaloid found in many plants, including *Hydrastis* canadensis (goldenseal), *Coptis chinensis* (Coptis or goldenthread), *Berberis aquifolium* (Oregon grape), *Berberis vulgaris* (barberry), and *Berberis aristata* (tree turmeric). Berberine has demonstrated significant antimicrobial activity against a variety of organisms, including bacteria, viruses, fungi, protozoans, helminths, and Chlamydia.

In diarrhea caused by *Vibrio cholera* and *Escherichia coli*, berberine was found in human studies to reduce intestinal secretion of water and electrolytes, directly inhibit enterotoxins, significantly reduce smooth muscle contraction and intestinal motility, and delay intestinal transit time. In the case of *E. coli, in vitro* research indicates berberine sulfate inhibits bacterial adherence to mucosal or epithelial surfaces, the first step in the infective process.

Berberine extracts and salts have demonstrated *in vitro* growth inhibition of *Giardia lamblia, Entamoeba histolytica, Trichomonas vaginalis,* and *Leishmania donovani.* Animal studies show berberine markedly decreases parasitic load and rapidly improves hematological parameters. In comparison to metronidazole (Flagyl®), a popular giardiasis medication, berberine was nearly as effective at half the dose. In *Chlamydia trachomatis* infection in humans, berberine has been shown to be effective in both the clinical course of trachoma and in reducing serum antibody titers against *C. trachomatis*.

other products to see: Entrocap

gastrointestinal support immune support urinary tract support

Berbercap®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Oregon Grape extract (root) (Berberis aquifolium) (80% Berberine) 200 mg. * "Daily Value (DV) not established.

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

60 Vegetarian Capsules Code: SF760 Dosage: 1 capsule bid - tid

berberine article (2-2) berberine monograph product data sheet

[†]A hypoallergenic ingredient used to fill space.



- clinically proven to reduce flaking and redness associated with psoriasis
- → helps balance the skin's immune response
- convenient 2 capsules a day dosing
- → no messy ointments or creams
- → no adverse side effects
- → may be used in conjunction with other therapies

dermatology immune system support

Bio-DERM™

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Isolated Whey Protein fraction (XP-828L complex) 400 mg. *

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†
†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SP650 Dosage: 1 capsule bid

The active ingredient used in BioDerm was developed and patented by Advitech, Inc., Quebec City, Canada.

psoriasis study (13-2) psoriasis article (12-4) psoriasis study (12-4) dermatology booklet bioderm sales sheet product data sheet

BioDERM®

immune-modulating formula for psoriasis relief

Psoriasis affects 2-4 percent of the U.S. population (approximately six million people). Thorne Research offers an innovative nutritional supplement to help manage symptoms and support healthy, smooth skin.

Bio-DERM is an innovative approach to reducing scaly, irritated skin associated with psoriasis. Clinical trials have demonstrated Bio-DERM to be safe and effective. In a double-blind, placebo-controlled, crossover study on patients with mild-to-moderate psoriasis, individuals experienced significant reduction in scaly patches and redness within eight weeks of treatment compared to placebo. Furthermore, continued improvement was experienced by those who maintained their dosing for an additional eight weeks. No adverse side effects were observed.

Bio-DERM is an all-natural product that utilizes a patented process to extract specific protein complexes from whey. These protein complexes act as immune modulators, balancing the immune response of the skin and thereby helping ease the discomfort of psoriasis symptoms. Specifically, transforming growth factor-beta2 up-regulates cell-cycle inhibitors and has a potent antiproliferative effect. Bio-DERM can also reduce production of proinflammatory messengers (cytokines) like interleukin-2 and interferongamma, which are known to play a major role in psoriasis. Thorne Research is proud to be the exclusive supplier of this beneficial formula to health-care practitioners.

other products to see: Coleus Forskholii, Perma-Clear

Premenstrual syndrome (PMS) is a common medical complaint experienced by women, although its exact causes remain unclear. Over 100 symptoms have been attributed to PMS, the most common being irritability, tension, mood swings, anger, weepiness, depression, bloating, breast tenderness, headache, stomach upset, and food cravings. The diagnosis is not dictated by the symptoms themselves, but by their cyclic nature – the monthly onset 7-14 days prior to menstruation and relief with menses.

A number of hormone, neurotransmitter, and nutrient imbalances have been suggested as possible causes of PMS, including an increased estrogen-to-progesterone ratio, elevated prolactin, increased aldosterone, reduced serotonin, lowered endorphins, and impaired vitamin B6 activity. A number of nutrients and botanicals have been found to alleviate the discomforts associated with PMS by modulating these imbalances.

women's health

Bio-PMT®

for the special needs of women during the premenstrual phase

Designed to be taken in addition to Nutri-Fem, Bio-PMT is an excellent combination of nutrients and botanicals to lessen the symptoms associated with the ebb and flow of the hormones and neurotransmitters associated with the menstrual cycle.

Bio-PMT provides nutritional support for women experiencing mood swings, anxiety, and irritability associated with premenstrual tension. Bio-PMT is a combination of nutrients and botanicals that balance neurotransmitters and the cycling of hormones and their metabolites. Pyridoxal 5'-phosphate, zinc, and magnesium levels have been shown to be significantly lower in women with PMS symptoms. During the luteal phase of the menstrual cycle of PMS patients, an increased progesterone/estrogen ratio can cause fluid retention, breast tenderness, irritability, and anxiety. The nutrients and herbs in Bio-PMT help regulate the estrogen/progesterone ratio by regulating estrogen metabolism in the liver.

Bio-PMT is intended to be used along with Nutri-Fem. While it is recommended to take Bio-PMT for two weeks prior to menses, some women find they prefer to take it every day.

other products to see: Black Currant Oil, Nutri-Fem

Bio-PMT®

Four Capsules Contain:		% DV
Vitamin C (as Ascorbic Acid)	250 mg.	4179
Vitamin E (as d-Alpha-Tocopheryl)	200 IU.	6679
Riboflavin (as Riboflavin 5'- Phosphate)	14.6 mg.	8599
Niacin	20 mg.	1009
Vitamin B6 (as Pyridoxal 5'- Phosphate)	33.8 mg.	16909
Pantothenic Acid (as Calcium Pantothenato	e) 45 mg.	4509
Magnesium (as Magnesium Citrate)	200 mg.	509
Zinc (as Zinc Picolinate)	5 mg.	339
Chaste Tree extract (fruit)		
(Vitex angus-castus)	300 mg.	*
Alfalfa concentrate (herb) (Medicago sativa	a) 100 mg.	*
Wild Yam (root) (Dioscorea villosa)	200 mg.	*
Bearberry concentrate (leaf)		
(Arctostaphylos uva-ursi)	50 mg.	*
Rhodiola rosea extract (root) (3% Rosavins) 100 mg.	*
Gambir (leaf) (Uncaria gambir)	400 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF710 Dosage: 2 capsules bid last 2 weeks of cycle

PMS article (2-1) product data sheet

The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical rature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.







hepatic support women's health detoxification support lipid metabolism support

Calcium D-Glucarate

Supplement Serving Size: One CapsuleServing:		
Each Capsule Contains:		% DV
Calcium D-Glucarate	500 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule.

90 Vegetarian Capsules Code: M280 Dosage: 1 to 2 capsules tid

cancer article (6-2)
calcium-D-glucarate monograph
detox booklet
product data sheet

Calcium D-Glucarate

for enhanced phase II liver detoxification

Calcium D-glucarate is the calcium salt of D-glucaric acid, a substance produced naturally in small amounts by humans. Oral supplementation of calcium D-glucarate has been shown to inhibit beta-glucuronidase, preventing recycling of hormones and carcinogenic toxins, allowing for adequate phase II detoxification and excretion.

Glucuronidation is the process of attaching a glucuronic acid molecule to substances for detoxification and elimination from the body. During phase II detoxification, chemical carcinogens, steroid hormones, and other lipid-soluble toxins undergo glucuronidation and are then excreted through the bile or urine. However, the enzyme beta-glucuronidase is capable of deconjugating these hormones, toxins, and carcinogens, thereby making it possible for them to be reabsorbed rather than excreted. Elevated beta-glucuronidase activity is associated with increased risk for various cancers, particularly hormone-dependent cancers such as breast, prostate, and colon cancers.

The metabolites produced from calcium D-glucarate have been shown to inhibit beta-glucuronidase activity, increasing excretion of conjugated xenobiotic compounds and decreasing activity of harmful substances that are most active in their deconjugated state. Upon ingestion and exposure to the acidic environment of the stomach, calcium D-glucarate is metabolized to form D-glucaric acid. D-glucaric acid is further metabolized in the gastrointestinal tract into three compounds existing in equilibrium and comprised of approximately 40-percent D-glucaric acid, 30 percent D-glucaro-1,4-lactone, and 30-percent D-glucaro-6,3-lactone. These compounds are then transported to the blood and various internal organs, and are subsequently excreted in the urine and bile. Calcium D-glucarate administration results in inhibition of beta-glucuronidase activity for approximately five hours with each dosing.

Clinical applications of oral calcium D-glucarate include lipid lowering and support for healthy hormone metabolism, particularly in excess-estrogen conditions such as hormone-dependent cancers, polycystic ovaries, endometriosis, and PMS. Animal studies have also demonstrated inhibition of cancer types not usually considered hormone related, including skin, colon, liver, and lung cancers.

other products to see: Indole-3-Carbinol

Heavy metals are common underlying factors in chemical overload, and in some persons comprise the primary toxic assault. Contamination of water, air, and food by chemicals and heavy metals is an unfortunate consequence of our industrialized, high-tech society. The resultant accumulation of heavy metals in the human body poses a significant health risk, leading to a wide array of symptoms and disease states. Although human lead toxicity has decreased in the United States since lead was eliminated from gasoline and lead-based paint, it continues to be a significant problem, particularly in urban areas and areas of lead mining and smelting. Mercury, cadmium, and arsenic toxicity from occupational and environmental exposure also continue to pose a significant threat to public health. For these reasons, diagnostic testing for heavy metals and subsequently decreasing the body's burden of these substances has become a necessity.

Captomer® and Captomer-250® DMSA for heavy metal chelation

Meso-2, 3-dimercaptosuccinic acid (DMSA) is a sulfhydryl-containing, water-soluble, non-toxic, orally administered, metal chelator which has been in use as an antidote to heavy metal toxicity since the 1950s. More recent clinical use and research substantiates this compound's efficacy and safety, and establishes it as the premier metal chelation compound when compared to other available chelating substances. Captomer contains 100 mg DMSA per capsule, while Captomer-250 contains 250 mg DMSA per capsule.

Provocation testing using DMSA, followed by a 6- to 24-hour toxic metal urine analysis, is recommended to assess the amount of heavy metal present. Before initiating a heavy metal challenge with DMSA, the physician should be assured the patient has sufficient creatinine clearance to handle heavy metal excretion via the kidneys, as this is the primary route of elimination of heavy metals bound to DMSA. Check with your lab to establish their preferred protocol for the DMSA challenge. Some labs use a 24-hour urine collection, others a six-hour collection – which means a different pre-collection protocol.

Heavy metal detoxification should be accompanied by regular colonic irrigation – weekly is preferable but no less than one colonic per cycle of Captomer (on the last day of the Captomer dosing if possible). More frequent colonics will aid in elimination and reduce the body's toxic burden.

Metals chelated by DMSA include mercury, lead, arsenic, antimony, silver, bismuth, copper, cadmium, tin, nickel, zinc, thallium, and manganese.

other products to see: Heavy Metal Support

detoxification

Captomer®

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

45 Vegetarian Capsules
Code: SF740
Dosage: 10 mg. per kg body
weight per day in three divided
doses - between meals. Use on
a two-week cycle, 3 days on 11

product data sheet

Captomer-250®

Supplement Facts Serving Size: One CapsuleServings Per Container: 45 Each Capsule Contains: % DV Succinic Acid (from 250 mg DMSA†) 162.5 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule.

45 Vegetarian Capsules
Code: SF735
Dosage: 10 mg. per kg body
weight per day in three divided
doses - between meals. Use on
a two-week cycle, 3 days on 11

† Meso-2,3-Dimercaptosuccinic Acid

DMSA article (3-3) dimercaptosuccinic acid monograph detox booklet product data sheet

The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical rature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

Elevated blood cholesterol is one of several risk factors for cardiovascular disease. Although conventional prescription medications are often effective at lowering cholesterol, the potential for adverse effects involving the liver, muscle tissue, eyes, and other organs causes many patients to seek alternatives. The first step in natural cholesterol management should involve dietary and lifestyle modifications, including a low-saturated fat, low-carbohydrate diet and aerobic exercise. As additional supplementation, several nutrients and botanicals can be used to aid in lipid metabolism, and an amino acid – L-arginine – may enhance the protective effects of statin drugs.

The cholesterol fraction that appears to be of most concern is LDL cholesterol, and even more specifically, oxidized LDL. Therefore, in addition to concentrating on lipid lowering, antioxidant supplementation may be beneficial for decreasing the oxidation of LDL.

cardiovascular support lipid metabolism support

Choleast[™]

Supplement Facts Serving Size: One CapsuleServings Per Container: 120 Each Capsule Contains: % DV Red Yeast Rice (Monascus purpureus) 600 mg. * Coenzyme Q10 15 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine.[†]

[†]A hypoallergenic ingredient used to fill space.

120 Vegetarian Capsules Code: SF751 Dosage: 2 to 4 capsules bid

> CVD/CRP article (6-3) red yeast rice monograph product data sheet

NOTE: This product may cause a temporary and harmless red coloring of the stool

Choleast™

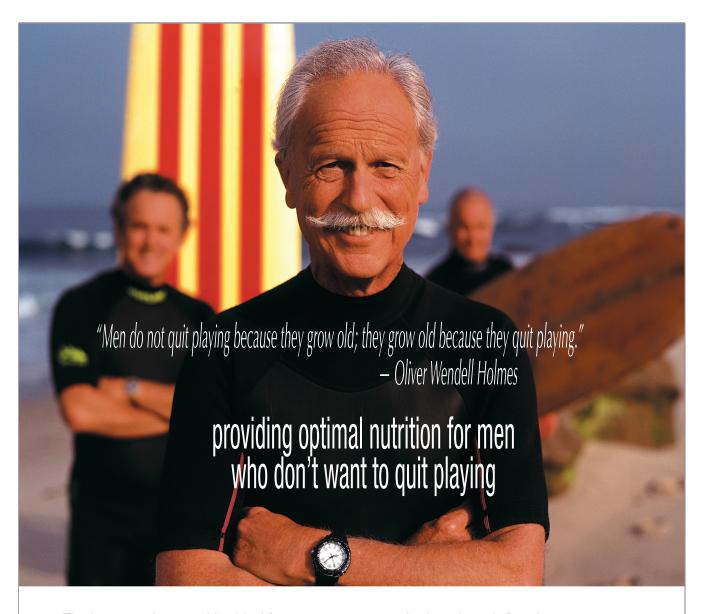
with natural HMG-CoA reductase inhibitors

After a check of their cholesterol levels and the subsequent prescription for a lipid-lowering "statin" drug, many patients express concern over potential adverse effects of drug therapy. Choleast is a natural alternative to the prescription drugs most often used in this case. Choleast is a lipid-lowering supplement containing red yeast rice, *Monascus purpureus*, a red-pigmented yeast grown on rice. Red yeast rice has been found to significantly benefit blood lipid levels, including total cholesterol, LDL cholesterol, and triglycerides.

Numerous scientific studies in China and the United States have proven red yeast rice preparations to be helpful in establishing normal blood lipid levels. This is important, as maintaining optimal cholesterol and triglyceride levels has been shown to reduce the incidence of myocardial infarction.

Red yeast rice appears to exert its influence on blood lipids by inhibiting the enzyme HMG-CoA reductase; the lipid-lowering "statin" drugs inhibit this enzyme as well. In contrast to drugs that contain one isolated synthetic HMG-CoA-reductase-inhibiting molecule, red yeast rice contains nine naturally-occurring HMG-CoA reductase-inhibitor compounds, phytosterols (beta-sitosterol, campesterol, and stigmasterol), isoflavones, and trace minerals. There is scientific evidence that inhibition of HMG-CoA reductase, in addition to inhibiting cholesterol biosynthesis, can also inhibit production of Coenzyme Q10 (CoQ10), the ubiquitous antioxidant and energy-producing nutrient vital to mitochondrial function. While it remains to be researched whether red yeast rice can cause this same deficiency in humans, one animal study suggests this is a possibility. To safeguard against CoQ10 depletion, Choleast contains 15 mg CoQ10 per capsule.

other products to see: Pharmacol-40, Niasafe-600, Krill Oil



The key to a vibrant and healthy life is to stay active – in body and mind. By taking a proactive approach to health maintenance, men can improve overall wellbeing. From Al's Formula, Thorne's comprehensive multivitamin mineral formula for men over 40, to Basic Pygeum Herbal prostate formula, to healthy circulatory support from Perfusia-SR, Thorne offers a variety of nutritional supplements specifically formulated for health, prevention, and maintenance.

now available from Thorne Research

call customer service at 800-228-1966 and ask for details on Perfusia-SR, Al's Formula, and Basic Pygeum Herbal.

Thorne Research your partners in wellness



purity is in the details™



email: info@thorne.com website: www.thorne.com toll free: (800)228-1966 toll-free fax: (800)747-1950 P.O. Box 25, Dover, Idaho, 83825

gastrointestinal support

Citricidin®

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Grapefruit Seed extract 50 mg. *

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF746 Dosage: 1 to 3 capsules tid

product data sheet

Citricidin® antimicrobial herbal extract

Citrus seed extracts, from grapefruit seeds in particular, have broad-spectrum antimicrobial effects – antifungal, antibacterial, and antiparasitic. Numerous *in vitro* studies have found grapefruit seed extract has activity against numerous gram-negative and gram-positive bacteria, *Candida albicans* and other fungal-yeast species, dermatophytes, and molds. Animal studies have also found grapefruit seed extracts can prevent gastric ulcerations by enhancing antioxidant effects in the gut.

other products to see: Undecyn, Entrocap

respiratory support allergy support dermatology

Coleus Forskohlii

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Coleus forskohlii extract (root) (10% Forskohlin) 100 mg. * *Daily Value (DV) not established.

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF756 Dosage: 1 capsule bid - tid

> coleus monograph product data sheet

Warning: Because forskolin is a potent inhibitor of platelet aggregation, it should be used with caution or avoided in patients on anticoagulant therapy.

Coleus Forskohlii

decreases histamine release by increasing cAMP

Coleus forskohlii root contains the diterpene forskolin, which activates adenylate cyclase, and in turn increases cellular cyclic AMP (cAMP) concentrations. Ingestion of Coleus extracts, and the subsequent increase in cAMP, can be helpful in decreasing histamine release from mast cells and basophils, while mitigating the inflammatory response in individuals with such conditions as asthma, psoriasis, and eczema. Studies suggest the increased cAMP stimulated by Coleus extracts relaxes respiratory airway smooth muscle, resulting in bronchodilation and improved respiratory function in asthma.

Forskolin inhibits IgE-mediated release of the potent inflammatory mediators histamine and leukotriene C4 from human basophils and lung mast cells. This suggests Coleus might be of benefit in inhibiting immediate hypersensitivity reactions.

other products to see: BioDERM

body's ability to synthesize cholesterol; however, one unintended effect of these medications is a significant dose-dependent decrease in the biosynthesis of coenzyme Q10. CoQ10 is an essential biochemical cofactor and antioxidant present in the ATP-producing mitochondrial respiratory chain of all cells, including myocardial cells. A statin-induced CoQ10 deficiency is thought to be one possible explanation for the fatigue, myalgia, exercise intolerance, and peripheral neuropathy experienced by some individuals taking this type of cholesterol-lowering drug. Because of this, many experts advise the use of CoQ10 along with cholesterol-lowering statins to prevent this depletion.

Cholesterol-lowering statin drugs decrease the

 $\text{Co-}10^{\text{@}}$ and $\text{Co-}Q\text{-}100^{\text{@}}$ an essential antioxidant and energy-producing nutrient

Like L-carnitine, coenzyme Q10 is absolutely necessary for proper myocardial function. CoQ10 is a vital component of energy production within the mitochondria of myocardial cells. CoQ10 is also an essential antioxidant that protects vascular endothelial cells from oxidative damage that can lead to decreased nitric oxide production, increased platelet aggregation, reduced blood flow, and an increased risk of atherosclerosis and coronary events. Type II diabetics, who commonly exhibit poor endothelial function and an increased risk of cardiovascular disease, were given 200 mg CoQ10 daily and demonstrated significantly improved endothelial function.

other products to see: Q10 Plus, Omega-3 w/ CoQ10

cardiovascular support gingival support antioxidants neurological support oncology support

CO-10®

Supplement Fa Serving Size: One CapsuleServings Per		
Each Capsule Contains:		% DV
Coenzyme Q10	30 mg.	*
*Daily Value (DV) not established.	228.	

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF721 Dosage: 1 to 2 capsules bid

product data sheet

Co-Q-100®

Supplement Serving Size: One CapsuleServing		
Each Capsule Contains:		% DV
Coenzyme Q10	100 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF719 Dosage: 1 to 2 capsules bid

coenzyme Q10 article (1-1) coenzyme Q10 article (1-3) coenzyme Q10 monograph product data sheet Thorne Research specialty formula products — page 123

Thorne Research specialty formula products — page 124

cardiovascular support gingival support antioxidants neurological support oncology support

CoQ100 Softgels

Each Gelcap Contains:		% DV
Calories	2	
Calories from Fat	2	
Total Fat	0.5 g.	1%*
Saturated Fat	0 g.	0%*
Trans Fat	0 g.	0%*
Coenzyme Q10	100 mg.	**
* Percent Daily Values are based on a 2,000 calorie diet. **Daily Value (DV) not established.		

Other Ingredients: Gelatin (from tilapia), glycerin (vegetable source) gelcap. Rice bran oil, beeswax, lecithin (from sunflower), vitamin E (mixed tocopherols), zinc oxide, riboflavin (vitamin B2)

Contains ingredient derived from fish (tilapia).

90 Fish Gelatin Gelcaps Code: SP617 Dosage: 1 - 2 gelcaps tid

product data sheet

CoQ300 Softgels

Each Gelcap Contains:		% DV
Calories	2	
Calories from Fat	2	
Total Fat	0.5 g.	1%*
Saturated Fat	0 g.	0%*
Trans Fat	0 g.	0%*
Coenzyme Q10	300 mg.	**

Other Ingredients: Gelatin (from tilapia and catfish), glycerin (vegetable source) gelcap. Rice bran oil, beeswax, lecithin (from sunflower), vitamin E (mixed tocopherols), zinc oxide, riboflavin (vitamin B2).

Contains ingredient derived from fish (tilapia and catfish).

90 Fish Gelatin Gelcaps Code: SP618 Dosage: 1 gelcap qd - tid

product data sheet

Coenzyme Q10 (ubiquinone, CoQ10) functions as an intracellular antioxidant. Due to its involvement in ATP synthesis, CoQ10 affects the function of all cells in the body, making it essential for the health of all tissues and organs. CoQ10 particularly benefits the most metabolically active cells: heart, immune system, gingiva, and gastric mucosa. An adequate amount of intracellular CoQ10 is vital to the health of heart muscle. CoQ10 stabilizes heart rhythm, may prevent ischemia, and can help maintain normal blood pressure. Supplementation with CoQ10 improved signs and symptoms of periodontal disease (including pocket depth and periodontal score) which have been linked with an increased risk for cardiovascular disease.

CoQ100® & CoQ300® Softgels

the ubiquitous antioxidant and mitochondrial factor

Our CoQ10 softgels, available in 100 mg and 300 mg per capsule doses, offer the premier antioxidant and energy-producing benefits of Coenzyme Q10 in a rice bran oil carrier for superior absorption. CoQ10 is a fat-soluble nutrient, and research has demonstrated better absorption when delivered in oil. Research indicates rice bran oil may provide therapeutic benefits of its own, including improved cholesterol and triglyceride metabolism. Present in the mitochondria of every cell, CoQ10 is an essential factor in ATP production. Clinical trials on CoQ10 demonstrate particular benefit for the cardiovascular and neurological systems, as well as the gingiva and gastrointestinal tract.

CoQ10 has been shown to increase cardiac output, ejection fraction, and stroke volume in patients with congestive heart failure.

other products to see: 010 Plus, Omega-3 w/ Co010

BACK TO ALPHA INDEX

Collag-en™

nutritional support for connective tissue – ligaments and tendons

Collag-en provides a comprehensive formula of nutrients for support of connective tissues – ligaments and tendons in particular. In addition to the important trace mineral manganese, the macrominerals calcium, magnesium, and zinc are included. Individuals who are healing from injuries are at risk for developing a zinc deficiency. Injuries to ligaments or tendons can also result in a splinting affect caused by spasm of the surrounding muscles. Calcium and magnesium are essential for proper muscle relaxation and deficiencies of either or both can result in muscle spasms.

Vitamin C is important for normal collagen cross-linkage and free radical scavenging, while bioflavonoids help stabilize connective tissue cell membranes. Vitamin E provides additional antioxidant activity, as free radical damage occurs during tissue injury.

Glycosaminoglycans that make up cartilage and other connective tissues are enhanced by the addition of chondroitin sulfate and mucopolysaccharide concentrate.

other products to see: Traumogen, Manganese Picolinate, Glucosamine & Chondroitin

musculoskeletal support

Collag-en™

Two Capsules Contain:		% DV
Vitamin C (as Ascorbic Acid)	200 mg.	333%
Vitamin E (as d-Alpha Tocopheryl)	30 IU.	100%
Calcium (as Calcium Citrate-Malate)	35 mg.	3.5%
Magnesium (as Magnesium Citrate-Mala	te) 25 mg.	6%
Zinc (as Zinc Picolinate)	10 mg.	67%
Manganese (as Manganese Picolinate)	15 mg.	750%
Bioflavonoids	100 mg.	*
Chondroitin Sulfate	100 mg.	*
Mucopolysaccharide concentrate	200 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

60 Vegetarian Capsules Code: SG806 Dosage: 1 to 2 capsules bid

surgery / wound article (8-4) chondroitin monograph product data sheet

Coptis

a traditional Chinese herb high in berberine for enhanced immune support

Coptis chinensis, also known as Huang Lian, is a berberine-containing root with a long history of use in traditional Chinese medicine. Berberine, found in many plant species, has direct antimicrobial activity and has been shown to inhibit the adherence of bacteria to erythrocytes and epithelial cells. Thus, it is possible for berberine to exert an antimicrobial effect, even against organisms that do not exhibit direct *in vitro* sensitivity to the alkaloid. Thorne's Coptis provides broad-spectrum antimicrobial activity and comes in a liquid extract form for easy dosage titration.

other products to see: Berbercap, Entrocap

immune support

Coptis

Serving Size: 1/2 Dropperful	
Contains:	% DV
Chinese Goldthread (Huang-Lian) extract	*
(Coptis chinesis) *Daily Value (DY) not established.	

1 FL. OZ. (30 mL) Code: SP628 Dosage: 20 drops tid Thome Research specialty formula products — page

berberine article (2-2) berberine monograph product data sheet

·

[†]A hypoallergenic ingredient used to fill space.

adrenal support

Cortine®

Supplement Serving Size: One CapsuleServings F		
Each Capsule Contains:		% DV
Adrenal (Bovine)	100 mg.	*
Adrenal Cortex (Bovine)	20 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Silicon Dioxide. †

60 Vegetarian Capsules Code: SG802 Dosage: 1 to 2 capsules bid

product data sheet

Cortine®

whole adrenal and adrenal cortex in one capsule

In today's world it seems as though everyone is functioning in "high-stress" mode. Dietary habits fraught with caffeine and refined sugars, and lifestyle habits that deprive us of adequate rest and exercise, can over time, have a taxing effect on the adrenal glands. Whole adrenal and adrenal cortex tissue extracts play a valuable role in supporting healthy adrenal glands, particularly in cases of low adrenal function, which is usually accompanied by fatigue, feelings of being overwhelmed, and low immune resistance. Glandulars also help to support healthy cortisol levels. As such, they may also provide benefit for conditions related to immune modulation (allergies) and managing inflammation throughout the body. Thorne's Cortine combines the overall nutritive properties of pure, whole adrenal tissue and adrenal cortex tissue for focused support and healthy adrenal function.

adrenal support

Cortrex®

*Daily Value (DV) not established.

Supplement Facts

Each Capsule Contains:		% DV
Vitamin C (as Ascorbic Acid)	50 mg.	83%
Thiamine (as Thiamine HCI)	8 mg.	534%
Riboflavin (as Riboflavin 5'- Phosphate)	3.6 mg.	212 %
Vitamin B6 (as Pyridoxal 5'- Phosphate)	3.4 mg.	170%
Pantothenic Acid (as Calcium Pantothena	te) 45 mg.	450%
Zinc (as Zinc Picolinate)	10 mg.	67%
Adrenal (Bovine)	125 mg.	*
Adrenal Cortex (Bovine)	30 mg.	*
Licorice (root) (Glycyrrhiza glabra)	75 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

60 Vegetarian Capsules Code: SG801 Dosage: 1 to 2 capsules bid

> stress article (4-4) glycyrrhiza monograph product data sheet

Cortrex®

multi-faceted nutritional support for healthy adrenal function

Cortisol is a hormone produced by the adrenal glands, especially in times of stress. It is important in regulating healthy blood sugar. It also plays key roles in maintaining healthy immune function, fertility, and overall physical and mental stamina. Usually, the adrenal glands can cope with the demands of everyday life. However, in an environment of chronic stress, they can become overworked and unable to produce sufficient cortisol to keep up with demand. This can potentially lead to problems throughout the body. Thorne's Cortrex supplies a combination of adrenal glandulars and nutrients to support overall adrenal function and help maintain healthy cortisol levels. Whole adrenal tissue and adrenal cortex provide a component to Cortex specific for tonifying the adrenals. Licorice root (Glycyrrhiza glabra) appears to have a modulating effect on cortisol activity. Ascorbic acid, thiamine (B1), riboflavin 5'-phosphate (the active form of B2), pantothenic acid (B5), pyridoxal 5'-phosphate (the active form of B6), and zinc are included for their strengthening and supportive role in optimizing adrenal function.

other products to see: Phytisone, Adrenal Cortex

[†]A hypoallergenic ingredient used to fill space.

[†]A hypoallergenic ingredient used to fill space.

Meriva® - Curcumin Phytosome curcumin complexed with phosphatidylcholine for superior bioavailability

A 2007 study published in the journal Cancer Chemotherapy and Pharmacology demonstrated Meriva's superior bioavailability, compared to ordinary curcumin. This animal study indicated a significantly greater plasma concentration time curve, with an area under the curve (AUC) five times higher for Meriva. Liver levels of curcumin were also higher with Meriva supplementation. A recent human study (as yet unpublished) demonstrated even greater bioavailability. Meriva supplementation resulted in plasma concentrations of curcumin that were nine times higher than with ordinary curcumin dosing.

Curcumin, the principal polyphenol in the Indian spice turmeric, exerts potent anti-inflammatory effects. Mechanisms of action include inhibition of proinflammatory eicosanoid formation by its inhibitions of lipoxygenase and cyclooxygenase. Curcumin has the potential to positively impact autoimmune diseases such as rheumatoid arthritis by regulating inflammatory cytokines, such as IL-1beta, IL-6, IL-12, TNF-alpha, and IFN-gamma, and associated signaling pathways, including NF-kappaB, in immune cells. Curcumin has been found to be as effective as cortisone and phenylbutazone in acute inflammation, one-half as effective as these drugs for chronic inflammation, and more potent than ibuprofen as a stabilizer of lysosomal membranes.

Several studies have illustrated curcumin's hepatoprotective effects, leading researchers to suggest its use in protecting the liver from exogenous insults from environmental toxins, including carbon tetrachloride and acetaminophen. Curcumin also has the capacity to increase bile flow and solubility, making it of potential benefit for someone with a tendency to form gallstones. Curcumin also demonstrates potent chemopreventive effects. Animal and in vitro studies utilizing human cell lines have demonstrated curcumin's ability to inhibit carcinogenesis at three stages: tumor promotion, angiogenesis, and tumor growth. In two studies of colon and prostate cancer, curcumin was found to inhibit cell proliferation and tumor growth. Curcumin is also capable of suppressing the activity of several common mutagens and carcinogens in a variety of cell types in both in vitro and in vivo studies. The anticarcinogenic effects of curcumin are due in part to direct free-radical scavenging effect; but, curcumin also enhances the body's natural antioxidant system, increasing glutathione levels, thereby aiding in hepatic detoxification of mutagens and carcinogens, and inhibiting nitrosamine formation.

other products to see: MediClear Plus, Phytoprofen, AR-Encap, S.A.T., T.A.P.S.,



hepatic support oncology support musculoskeletal support

Meriva® Curcumin Phytosome

Supplement Facts Serving Size: One CapsuleServings Per Container: 120 Each Capsule Contains: % DV Curcumin Phytosome** (root) (Curcuma longa extract / Phosphatidylcholine complex) 250 mg. *

Other Ingredients: High and low viscosity hydroxypropyl methylcellulose and CalciumCitrateLaurate, Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.† Contains ingredient derived from soy (phytosome).

**Curcumin Phytosome (Meriva*) complexed with Time-Sorb* – a patent-pending, time release matrix.

[†]A hypoallergenic ingredient used to fill space.

120 Vegetarian Capsules Code: SF775 Dosage: 2 to 4 capsules bid

Meriva® is a Registered Trademark of Indena.

curcuma monograph product data sheet meriva sales sheet Dehydroepiandrosterone (DHEA) is a key natural steroid hormone produced by the adrenal glands, and is a precursor of the human sex hormones, testosterone and estrogen. With age, production of this hormone declines. Current research indicates supplementation with DHEA (when found to be low) can improve both physical and psychological well being.

adrenal support neuroendocrine support

Dehydrone-5®

Supplement Fac Serving Size: One CapsuleServings Per Cont		
Each Capsule Contains:		% DV
Dehydroepiandrosterone (DHEA)	5 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,[†] Hypromellose (derived from cellulose) capsule, Leucine,[†] Silicon Dioxide.[†]

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF730 Dosage: 1 to 3 capsules qd

product data sheet

Dehydrone-5®

low potency DHEA for physiological dosing

DHEA is classified as an adrenal androgen. Plasma levels decline progressively with age beginning around age 40, such that the level of DHEA at age 70 is only about 20 percent as high as that in young adults. Reports indicate treating elderly patients with 5-20 mg/day DHEA often results in improved mood, energy levels, memory, appetite, and skin condition. DHEA is usually administered as an encapsulated powder in two or three divided doses. Thorne's Dehydrone-5 supplies 5 mg of DHEA in each capsule, for initial physiological dosing of DHEA. The 5 mg capsule also allows clinicians more control in titrating a patient's dosage as needed.

Dehydrone-15®

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % Dehydroepiandrosterone (DHEA) 15 mg. *

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF731 Dosage: 1 to 2 capsules qd

DHEA article (1-2) dehydroepiandrosterone monograph product data sheet

Dehydrone-15®

higher potency DHEA for specific applications

Low DHEA levels have been associated with heart disease, cancer, diabetes, obesity, chronic fatigue syndrome, AIDS, and Alzheimer's disease. Other research suggests that autoimmune diseases such as systemic lupus erythematosus (SLE), rheumatoid arthritis, and multiple sclerosis might be associated with declining DHEA levels. In a small clinical trial in which 10 women with mild-to-moderate SLE were given 200 mg/day DHEA for 3-6 months, eight of the 10 women reported improvement in fatigue, energy levels, and overall wellbeing. An additional study was conducted in which 50 women with mild-to-moderate SLE were given 50-200 mg/day DHEA for 6-12 months. Thirty-four patients completed six months of treatment and 21 patients were treated for 12 months. Results demonstrated decreasing disease activity over the entire treatment period, as measured by the SLE Disease Activity Index. Benefits were sustained one year post-treatment, regardless of menopausal status.

other products to see: Phytisone, Cortrex



Deproloft®

a synergistic blend of botanicals and nutrient cofactors to enhance mood

Deproloft is a multifaceted formula designed to safely enhance mood and cognition. It combines several nutrients and botanicals such as St. John's wort, Rhodiola, L-tyrosine and 5-HTP, with other key ingredients, including Eleutherococcus and GABA, to promote healthy neurotransmitter and adrenal function.

Low blood concentrations of vitamin B12 and folate can have an adverse effect on mood. Deproloft contains Methylcobalamin and 5-Methyltetrahydrofolate (5-MTHF), the two most biologically active forms of B12 and folate, respectively.

Eleuthero (*Eleutherococcus senticosus*) is a well-known adaptogen, and is included in Deproloft to provide general adrenal support. Gamma aminobutyric acid (GABA), an inhibitory neurotransmitter that balances excessive excitatory responses in the brain, is included to help allay stress and support a calm state of mind. Deproloft is a safe and effective alternative for mood enhancement, and a valuable addition to any stress management plan.

other products to see: 5-MTHF, 5-Hydroxytryptophan, Hyper-Ex, Rhodiola, PharmaGABA-PRO, L-Tyrosine

neuroendocrine support mood enhancement

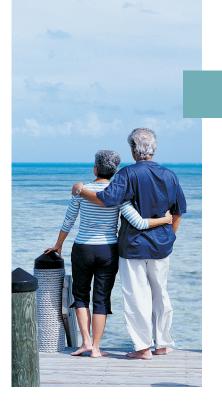
Deproloft®

Each Capsule Contains:		% DV
Vitamin C (as Ascorbic Acid)	125 mg.	2089
Vitamin B6 (as Pyridoxal 5'- Phosphate)	2.5 mg.	125%
Folate (as 5-Methyl-tetrahydrofolate)	200 mcg.	50%
Vitamin B12 (as Methylcobalamin)	275 mcg.	4583%
lodine (as Potassium lodide)	34 mcg.	229
Rhodiola rosea extract (root)	25 mg.	*
St. John's Wort extract (flower)		
(Hypericum perforatum)	75 mg.	*
Eleuthero extract (root) (Eleutherococcus	senticosus)	
(0.8% Eleutherosides)	25 mg.	*
L-Tyrosine	100 mg.	*
5-Hydroxytryptophan	13 mg.	*
Gamma Aminobutyric Acid	125 mg.	*
Pantethine	65 mg.	*

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.† †A hypoallergenic ingredient used to fill space.

120 Vegetarian Capsules Code: SF743 Dosage: 2 capsules bid

neurotransmitter article (5-1)
5HTP article (3-4)
eleutherococcus monograph
folate/depression article (13-3)
product data sheet



neuroendocrine support carbohydrate metabolism

Diabenil®

Two Capsules Contain:		% DV
Chromium (as UltraChrome®)	100 mcg.	83%
Vanadyl Sulfate	3 mg.	*
Gymnema sylvestre extract (leaf)		
(25% Gymnemic Acid)	200 mg.	*
Bilberry extract (fruit) (Vaccinium m	yrtillus)	
(25% Anthocyanosides)	80 mg.	*
Bitter Melon extract (fruit)		
(Momordica charantia) (0.5% ch	arantin) 80 mg.	*
Quercetin Chalcone	400 mg.	*
Alpha-Lipoic Acid	100 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule. Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF790 Dosage: 2 capsules tid

diabetes article (2-4)
diabetes article (7-1)
momordica monograph
gymnema monograph
vaccinium monograph
product data sheet

Diabenil®

for support of healthy blood sugar levels

Diabenil is a unique blend of botanicals and nutrients designed to help stabilize blood sugar. In addition, it contains important antioxidants and flavonoids to protect sensitive tissues of the body from the effects of hyperglycemia.

Gymnema sylvestre, a plant native to India, has been used medicinally for over 2,000 years. Its effect on regulating blood glucose has been widely studied since the 1930s. It has been found to normalize blood sugar in human studies. In animal studies it has been found to increase the number of beta cells in the pancreas. It also maintains normal cholesterol and triglyceride levels, often found to be elevated in individuals with hyperglycemia.

Momordia charantia (bitter melon) is an herb commonly found in China, India, and Africa. Its active ingredients include charantin and a substance known as p-insulin (plant insulin), which resembles bovine insulin in structure and function. These components appear to both enhance glucose utilization and depress glucose synthesis in the liver.

Vaccinium myrtillus (bilberry) contains important anthocyanoside flavonoids that appear to have a particular affinity for ocular tissue, particularly the retina. These flavonoids decrease capillary permeability and help stabilize collagen, decreasing abnormal collagen formation in sensitive tissues.

Quercetin chalcone, in addition to its collagen-stabilizing effects, inhibits aldose reductase, the enzyme that converts glucose and galactose to sorbitol and other polyols. Once formed, polyols accumulate in cells such as the lens of the eye, renal glomeruli, and peripheral nerves.

Lipoic acid is a potent antioxidant in both water- and fat-soluble mediums, and it significantly reduces lipid peroxidation of nerve tissue. It has also been found to inhibit aldose reductase and the oxidation of glycated proteins, such as glycosylated hemoglobin.

UltraChrome® and vanadyl sulfate are also included in Diabenil. Because of the synergistic effects of these nutrients with botanicals in the formula, and in order to provide a supplement also suited for children, the dosages of chromium and vanadyl sulfate in Diabenil are lower than those used in studies in which the minerals were used as stand-alone products.

other products to see: Vacimyr, UltraChrome, R-Lipoic Acid

Entrocap®

superior antimicrobial support for the GI tract

Entrocap combines the potent antimicrobial activity of berberine (see Berbercap) with the broad-spectrum antimicrobial effects offered by grapefruit seed extract (see Citricidin). The pharmacologic actions of berberine include metabolic inhibition of certain organisms, inhibition of bacterial enterotoxin formation, inhibition of intestinal fluid accumulation and ion secretion, inhibition of smooth muscle contraction, reduction of inflammation, platelet aggregation inhibition, and stimulation of bile and bilirubin secretion. Consider Entrocap for diarrhea of pathogenic microbial origin.

other products to see: Berbercap, Coptis

gastrointestinal support

Entrocap®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60		
Each Capsule Contains:		% DV
Oregon Grape extract (root) (Berbe	ris aquifolium)	
(80% Berberine)	200 mg.	*
Grapefruit Seed extract	75 mg.	*
Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF747 Dosage: 1 capsule b<u>id</u> - tid

berberine article (2-2) berberine monograph product data sheet

Fibrovive®

nutritional support for optimal mitochondrial function

Fibrovive is a special formulation of key Krebs cycle cofactors (magnesium, coenzyme Q10, vitamins B1, B6, and B12, folate, and R-lipoic acid), antioxidants (N-acetylcysteine, L-carnitine, acetyl-L-carnitine, and vinpocetine), and creatine to promote healthy mitochondrial function and enhance cellular energy production. Fibrovive also contains potassium, glutamine, and malic acid to facilitate healthy overall neuromuscular function.

In a recent preliminary clinical study, 55 percent of patients taking Fibrovive noted improvement, particularly in the area of muscle aches and weakness in the legs, arms, and shoulders. Furthermore, 90 percent of subjects reported improvement in sleep, ability to perform household chores, and depressed mood after taking Fibrovive for four weeks. Fibrovive serves as an invaluable addition to any nutrition plan focused on neuromuscular support.

other products to see: R-Lipoic Acid, Vinpocetine, CoQ300 Softgels

NOTE: Fibrovive $^{\text{IM}}$ provides energy to the cells and should not be taken too late in the day.

musculoskeletal support

Fibrovive[™]

Supplement Facts Serving Size: One CapsuleServings Per Container: 180

Each Capsule Contains:		% DV
Thiamine (as Thiamine HCI)	12.5 mg.	833%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	2.5 mg.	80%
Folate (from Calcium Folinate)	133 mcg.	33%
Vitamin B12 (from 75 mcg Methylcobala	min	
and 50 mcg Adenosylcobalamin)	125 mcg.	2080%
Magnesium (Aspartate)	20 mg.	5%
Potassium (Aspartate)	27 mg.	<1%
Malic Acid	100 mg.	*
Acetyl-L-Carnitine	50 mg.	*
L-Carnitine	25 mg.	*
Glutamine	125 mg.	*
N-Acetyl-L-Cystein	50 mg.	*
R-Lipoic Acid	1.25 mg.	*
Vinpocetine	1.25 mg.	*
Coenzyme Q10	12.5 mg.	*
Creatine monohydrate	62 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules
Code: SF704
Adult Dosage: With a full glass of water,
take 3 capsules upon wakening and 3
capsules mid-afternoon, between 1 & 3 pm.

chronic fatigue article (5-2)
product data sheet

The Thorme Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical rature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

norne Research specialty formula products — page 132

detoxification

Formaldehyde Relief

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
Each Capsule Contains:		% DV
Thiamine (as Thiamine HCI)	25 mg.	1667%
Pyridoxine (as Pyridoxal 5'- Phosphate)	50 mg.	67%
Selenium (as Selenium Picolinate)	50 mcg.	71.4%
Pantethine	100 mg.	*
Bifidobacterium lactis (bifidum)	250 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose capsule, Magnesium Citrate,† Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF793 Dosage: 1 capsule tid

> solvent article (5-2) detox booklet product data sheet

Formaldehyde Relief

for detoxification from aldehyde compounds

Formaldehyde is a pervasive environmental toxin. Out-gassing from new carpets or furniture and exposure to particle/fiber board paneling (used in cabinetry and prefabricated homes) are common sources of exposure and can continue for as long as 15 years. Occupational exposure can occur in carpet installers, medical students, histology technicians, cabinet builders, and construction workers. Candida toxin and alcohol metabolism are also sources of aldehyde compounds. Thus, Formaldehyde Relief should also be considered for individuals with Candida or a history of chronic alcohol consumption.

Thiamine (B1) deficiency is common in this population, particularly alcoholics, as aldehyde metabolism utilizes vitamin B1. Vitamin B6 is a cofactor for the sulfation and glucuronidation pathways necessary for aldehyde clearance. P5P, the active form of B6, is better utilized by chemically toxic individuals. Selenium is a cofactor for glutathione utilization, which is essential for sulfation. *Bifidobacterium bifidum* has demonstrated effectiveness at clearing aldehydes from the system. Pantethine, the active form of vitamin B5, increases the activity of aldehyde dehydrogenase, the enzyme that metabolizes acetaldehyde.

other products to see: B-Complex #1, Formula SF722, Basic Detox Nutrients

gastrointestinal support

Formula SF734

Supplement Facts Serving Size: Two CapsulesServings Per Container: 45 Two Capsules Contain: Bismuth Citrate Oregon Grape extract (root) (Berberis aquifolium) (80% Berberine) Bentonite Clay OGL (root) (Deglycyrrhiznated licorice) 100 mg. * DGL (root) (Deglycyrrhiznated licorice) * DGL (root) (Deglycyrrhiznated licorice)

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF734 Dosage: 2 capsules qid (ac) for

> H.pylori article (6-4) glycyrrhiza monograph product data sheet

Formula SF734

for support of individuals with H. pylori

Chronic gastric upset, gastritis, and ulcers are no longer thought to be strictly stress-induced conditions, but a result of gastroduodenal microbial dysbiosis. Formula SF734 contains DGL (deglycyrrhizinated licorice root), with its gastroprotective and healing properties. Studies using licorice root preparations resulted in improved healing of ulcers, with less recurrence. In addition, SF734 provides the potent antimicrobial activities of bismuth citrate and Oregon grape root (*Berberis aquifolium*) extract, to facilitate eradication of *H. pylori*, the organism thought to be responsible for recurrent ulcer disease. Bentonite clay is included for effective endotoxin neutralization.

The bismuth in this product may cause a temporary and harmless darkening of the stool.

other products to see: Berbercap

Candida albicans has long been acknowledged as a primary cause of vulvovaginitis. It can be brought on by hormone changes during the menstrual cycle or vaginal dryness associated with menopause. PMS-associated dietary indiscretions – such as increased intake of sweets and other carbohydrates – can also contribute to a yeast infection. There is a strong association between recurrent vulvovaginal candidiasis and candidiasis of the gastrointestinal tract. In one study of 98 women who had recurrent vaginal candidiasis (defined as at least three occurrences), *C. albicans* was found in both fecal and vaginal material in 52 percent of women. Thus, it is essential to take a comprehensive approach to treatment, rather than merely using local treatment – douches or suppositories.

Dietary changes can benefit individuals with chronic Candida. The most important foods to eliminate from the diet are desserts, yeasted breads, and alcoholic beverages. Fruit and fruit juices should be used in moderation – with an emphasis on whole fruit rather than fruit juice. The diet should consist of high quality, low-fat protein (such as fish or chicken), low-fat dairy products (assuming no dairy allergy), whole grains, and liberal servings of vegetables. In addition to dietary modifications, nutrient supplementation can help eradicate Candida and maintain healthy vaginal flora.

Formula SF722

undecylenic acid – the most potent antifungal fatty acid

Fatty acids have been used for centuries as antimicrobial agents. In the last 50 years they have demonstrated effectiveness as yeast and mold inhibitors in food and as topical, intestinal, and systemic antifungals.

Undecylenic acid (10-undecenoic acid) is an eleven-carbon, monounsaturated fatty acid occurring naturally in the body's perspiration. While several fatty acids have been found to have antifungal and antiyeast effects, undecylenic acid is the most potent against Candida and other fungal/yeast infections. For instance, undecylenic acid has been shown to be approximately six times more effective as an antifungal than caprylic acid.

A Thorne innovation, Formula SF722 contains undecylenic acid in a base of pure, extra-virgin olive oil. It aids in eradicating Candida and other yeast species, and has been one of our best-selling products for almost two decades.

other products to see: Undecyn, Lactobacillus Sporogenes, Citricidin, Medibulk

gastrointestinal support women's health

Formula SF722

Supplement Facts Serving Size: One GelcapServings Per Container: 250 Each Gelcap Contains: % DV 10-Undecenoic Acid (derived from castor bean oil) 50 mg. *

Other Ingredients: Extra virgin olive oil, gelatin (from tilapia and catfish) and glycerin (vegetable source) capsule.

Contains ingredient derived from fish (tilapia and catfish).

250 Gelcaps Code: SF722 Dosage: 3 to 5 gelcaps tid

candida article (2-5) undecylenic acid monograph detox booklet product data sheet

WARNING: Undecylenic acid should not be opened and mixed with food or drink as the taste and odor is objectionable and it may also be irritating to mucous membranes.



oncology support men's health

Fractionated Pectin Powder

Supplement Fa Serving Size: One ScoopServings Per Con		
Each (6.5 g) Scoop Contains:		% DV
Total Calories	24	
Calories from Fat	0	
Total Carbohydrates	6 g.	2%
Sugars	0 g.	<1%
Fractionated Pectin [†]	6.5 g.	**
*Percent Daily Values based on a 2,000 calorie diet. **Daily Value (DV) not established		

NET WT. 5 OZ (141 G) Code: SF778

Dosage: 1 to 3 scoops or more daily as directed by practitioner. Mix with a small amount of warm water in a blender or shaker, then dilute with juice of choice.

†Protected under U.S. Patent No. 5,498,702.

product data sheet

Fractionated Pectin

Supplement F Serving Size: One CapsuleServings P		
Each Capsule Contains:		% DV
Fractionated Pectin [†]	450 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule.

90 Vegetarian Capsules Code: SF779 Dosage: 1 to 2 capsules tid

†Protected under U.S. Patent No. 5,498,702.

modified citrus pectin article (1-1)
modified citrus pectin study (5-6)
modified citrus pectin monograph
product data sheet

Fractionated Pectin Powder

patented, water-soluble modified citrus pectin in a powder

Fractionated pectin, also known as modified citrus pectin (MCP), is a complex polysaccharide obtained from the peel and pulp of citrus fruits. Metastasis is one of the most life threatening aspects of cancer and the lack of effective anti-metastatic therapies has prompted research on the effectiveness of MCP in blocking the metastasis of certain types of cancers, including melanomas and prostate and breast cancers. MCP is rich in galactoside residues, giving it an affinity for certain types of cancer cells. These galactoside residues bind to lectins on cell membranes, preventing attachment of these unwanted cells. Fractionated pectin may also be able to kill prostate cancer cells.

A recent *in vitro* study using Thorne's Fractionated Pectin found it significantly induced apoptosis in human prostate cancer cells. Regular citrus pectin and the pH-modified product, Pecta-Sol, had little or no apoptotic activity.

Modified citrus pectin (fractionated pectin) has been shown in animal studies to reduce metastases of certain tumor types, and should especially be emphasized at the time of surgical excision or biopsy. In two clinical studies, fractionated pectin has also been demonstrated to slow the rate of PSA rise in patients with metastatic prostate cancer. Each scoop of Fractionated Pectin Powder supplies 6.5 grams of fractionated pectin for easy high-gram dosing.

Fractionated Pectin

patented, water-soluble modified citrus pectin in capsules

Fractionated Pectin, Thorne's patented, water-soluble modified citrus pectin formula, is also available in capsules for easy access when traveling, or for instances where lower, maintenance dosing is indicated.

other products to see: Supportive Care, Supportive Care II

GB24™

a standardized extract of Ginkgo biloba

Ginkgo biloba is the oldest living tree species, dating back approximately 200 million years. The oldest traditional medicine system, Chinese medicine, has utilized Ginkgo preparations for over 5,000 years. Modern Ginkgo extracts are standardized to contain 24-percent flavone glycosides and 6-percent terpene lactones – naturally-occurring constituents of Ginkgo that appear to be the active constituents of the plant. Research indicates Ginkgo has neuroprotective and memory-enhancing effects, in addition to its antioxidant and cardioprotective activity. Numerous clinical studies have demonstrated that Ginkgo supplementation can prevent cognitive decline and improve memory and cognitive function in healthy individuals and those with dementia. People with milder deficits and in the earlier stages of the disease process tend to respond better to supplementation.

GB24 contains the extract (standardized to 24% Ginkgo heterosides) used in many of the clinical studies.

other products to see: Memoractiv, Perma-Clear, Q10 Plus

cognitive support cerebrovascular support

GB24[™]

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Ginkgo biloba extract (leaf) (24% Ginkgo Heterosides) 40 mg. * "Daily Value (DV) not established. Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF739 Dosage: 1 to 2 capsules tid

> ginkgo article (1-4) ginkgo monograph product data sheet

GI-Encap® soothing support for the GI tract

pastrointestinal mucosal cells and to stimulate healing in the GI tract. Licorice root preparations have been used for many years for the nutritional support of the stomach and duodenum. Glycyrrhizic acid is removed from the extract to prevent a rise in blood pressure observed in some individuals taking whole licorice root. Dried, unripe plantain banana powder (Musa paradisiaca) protects the gastroduodenal mucosa from irritating substances, and has been shown to speed healing of this sensitive tissue. The improvement in gastroduodenal mucosal resistance may be due to Musa's ability to increase both mucosal thickness and the mucosal concentration of proteoglycans. Slippery elm bark (Ulmus fulva) and Marshmallow root (Althea officinalis) contain mucilaginous components that are very soothing to the digestive tract.

For esophageal irritation and reflux, GI-Encap can be taken out of the capsule and mixed with warm water for a soothing tea.

other products to see: Formula SF734, MediClear Plus

gastrointestinal support

GI-Encap®

Each Capsule Contains:		% D\
Plantain Bananas (fruit) (Musa paradisiac	a) 275 mg.	*
Deglycyrrhizinated Licorice (DGL) (root)		
(Glycyrrhiza glabra)	175 mg.	*
Slippery Elm (bark) (Ulmus fulva)	40 mg.	*
Marshmallow (root) (Althea officinalis)	40 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.[†]

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF703 Dosage: 2 capsules qid

glycyrrhiza monograph product data sheet Thorne Research specialty formula products — page 13

The Thome Research 2009 Physicians' Reference Guide is intended for the exclusive use of licensed health-care practitioners. The reference material in the Physicians' Reference Guide is of a technical nature that is directed to and should only be used by health-care professionals with the required technical training and background. The Physicians' Reference Guide should not be used by a patient or any other end user of the dietary supplement products described in it to self-determine either the indication for use or the protocol for use.

musculoskeletal support

Glucosamine Sulfate

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Glucosamine Sulfate 500 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

Contains ingredient derived from shellfish (crab and/or shrimp).

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF776 Dosage: 1 capsule tid

also available 180 Vegetarian Capsules Code: SF777

glucosamine & chondroitin article (3-1) glucosamine sulfate monograph product data sheet

Glucosamine Sulfate

an important building block for glycosaminoglycan formation

Glucosamine sulfate is capable of stimulating synthesis and inhibiting degradation of glycosaminoglycans – enhancing regeneration of damaged cartilage. Glucosamine sulfate also promotes the incorporation of sulfur into cartilage. Glycosaminoglycans, such as chondroitin sulfates, are necessary for healthy joint structures; glucosamine enhances glycosaminoglycan formation.

Glucosamine can provide relief from pain and inflammation associated with arthritis. In trials where glucosamine sulfate has been compared to NSAIDS, long-term reductions in pain are greater in patients receiving glucosamine sulfate. In addition to symptom relief, glucosamine supplementation may actually retard progression of joint disease by rebuilding damaged cartilage. Clinical studies have demonstrated that, in patients with OA, symptoms such as joint pain, tenderness, and swelling often improve following a 6- to 8-week oral administration of glucosamine sulfate.

other products to see: AR-Encap, Traumogen

musculoskeletal support

Glucosamine & Chondroitin

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Glucosamine Sulfate 500 mg. * Chondroitin Sulfate 250 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine.† Silicon Dioxide.†

Contains ingredient derived from shellfish (crab and/or shrimp).

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF767 Dosage: 1 capsule tid

chondroitin sulfate monograph product data sheet

Glucosamine & Chondroitin two key components of the structural matrix of joints

Oral supplementation with glucosamine and chondroitin sulfates can alter the natural course of arthritis by slowing progressive joint damage. Condroitin sulfates, a group of glycosaminoglycans, are required for the formation of proteoglycans found in joint cartilage. It is believed they improve joint function by both enhancing endogenous synthesis and preventing enzymatic degradation of joint glycosaminoglycans. Evidence supports oral administration of chondroitin sulfates for degenerative joint disease, both as an agent to slowly reduce symptoms and to decrease the need for NSAIDs.

Some practitioners have found the combination of glucosamine and chondroitin sulfates can protect and rebuild joint surfaces more effectively than glucosamine sulfate alone. The combination of glucosamine and chondroitin is offered as an option for those wishing to use the combination to support joint integrity.

other products to see: Collag-en

detoxification

Heavy Metal Support

Two Capsules Contain:		% DV
Magnesium (as Magnesium Citrate-Malate) 75 mg.	8%
Zinc (as Zinc Picolinate)	15 mg.	67%
Selenium (as Selenium Picolinate)	75 mcg.	71.4%
Copper (as Copper Picolinate)	1 mg.	50%
Manganese (as Manganese Picolinate)	15 mg.	500%
Molybdenum (as Molybdenum Picolinate)	15 mcg.	13.4%
Potassium (as Potassium Citrate)	75 mg.	<2%
Methionine	150 mg.	*
Alpha Lipoic Acid	75 mg.	*
Marshmallow (root) (Althea officinalis)	75 mg.	*
Bearberry (5 to 1) extract (leaf)		
(Arctostaphylos uva ursi)	200 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

120 Vegetarian Capsules Code: SF795 Dosage: 2 capsules tid

heavy metal toxicity article (5-3) heavy metal toxicity article (7-6) heavy metal toxicity article (8-2) detox booklet product data sheet

gastrointestinal support

Herbal Laxative

Each Capsule Contains:		% DV
Blue Flag (root) (Iris versicolor)	50 mg.	*
Chinese Rhubarb extract (root)		
(Rheum officinalis)	25 mg.	*
Frangula extract (bark) (Rhamnus frangula) 15 mg.	*
Alexandrian Senna extract (leaf) (Cassia ad	cutifolia)	
(45% sennosides)	10 mg.	*
Cascara Sagrada extract (bark) (Rhamnus	purshiana)	
(20% cascarosides)	125 mg.	*

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

90 Vegetarian Capsules Code: SF768 Dosage: 1 capsule prn Thorne Research specialty formula products — page 137

product data sheet

Heavy Metal Support

replenishes nutrients depleted during chelation

Used as an adjunct to Captomer and Basic Detox Nutrients, Heavy Metal Support provides nutrients needed to assist in the safe movement of heavy metals out of the body and helps replenish nutrients made deficient by heavy metal toxicity and clearing. This, as well as other supplements containing minerals (such as Basic Detox Nutrients) should be used on the days that Captomer is not supplemented.

Magnesium is included in the product to replenish magnesium that is typically lost during the detoxification process. Because manganese, copper, and molybdenum can be chelated by DMSA, they are included in Heavy Metal Support to replace mineral losses. Zinc increases production of metallothionein, which helps protect the kidneys during metal clearing. Potassium citrate aids in mobilization of mercury from the body. Both selenium and alpha-lipoic acid increase glutathione levels; lipoic acid also has some mild metal chelating effects. Methionine moves cadmium from inside the cells for easier clearance. Uva ursi and marshmallow root are kidney protective botanicals; heavy metals bound to DMSA are primarily cleared by the kidneys.

other products to see: Captomer

Herbal Laxative

gentle, effective laxative

When dietary changes, increased water consumption, and fiber are not enough, Herbal Laxative can be used as an effective but gentle bowel stimulant. It contains the most common laxative herbs, including Cascara, rhubarb, and senna. This product should not be used in a patient with abdominal pain or diarrhea and is not intended for long-term use.

Rheum (Chinese rhubarb) demonstrates both laxative and antispasmodic effects. Cascara sagrada is an intestinal laxative and tonifies the liver and gall bladder. Senna is one of the most well-established herbal laxatives; its purgative qualities are believed to be due to the anthraquinone content. The traditional uses for both blue flag (Iris versicolor) and Rhamnus frangula include constipation and liver ailments.

other products to see: Medibulk

[†]A hypoallergenic ingredient used to fill space.

[†]A hypoallergenic ingredient used to fill space.



meal replacement
detoxification
musculoskeletal support
wound healing
metabolic support
protein supplement

Hydrolyzed Whey Protein

Two (15 g) Scoops Contain:		% DV
Calories	117	
Calories from Fat	18	
Total Fat	2 g.	3%
Saturated Fat	1 g.	5%
Trans Fat	0 g.	0%
Cholesterol	33 mg.	11%*
Total Carbohydrate	2 g.	<1%*
Dietary Fiber	0 g.	
Sugars (as lactose)	2 g.	
Protein	22.5 g.	

Other Ingredients: Hydrolyzed lactalbumin protein. Contains ingredient derived from milk.

NET WT. 18 OZ. (510 G)
Code: SP623
Dosage: 1 to 2 scoops in 8
ounces of water qd - tid

whey protein article (9-2) detox booklet surgery brochure product data sheet

Hydrolyzed Whey Protein enzymatically hydrolyzed for low allergenicity

Collectively, whey proteins have all the essential amino acids and in higher concentrations compared to various vegetable protein sources such as soy, corn, and wheat gluten. In addition to having a full spectrum of amino acids, the amino acids in whey are efficiently absorbed and utilized, relative to free amino acid solutions. Protein is the most important macronutrient for cleansing. Numerous studies have shown whey protein boosts glutathione levels, one of the most important molecules for detoxification. Furthermore, whey is high in cysteine and branched-chain amino acids (leucine, isoleucine, and valine) that can help prevent transport of metals across the blood-brain barrier into the brain.

Adequate protein intake is essential for proper wound healing. Protein depletion can delay wound healing by increasing inflammation, inhibiting production of collagen and the repair of the extracellular matrix, inhibiting the formation of new blood vessels within the wound area, and interfering with wound remodeling. This can decrease wound strength and increase scarring.

Enzymatic hydrolysis of whey protein breaks it into smaller, more absorbable, less antigenic peptides. Hydrolyzed Whey Protein should be considered for individuals undergoing a cleansing or detoxification program, recovering from surgery or an injury, or those needing additional, high quality protein, such as athletes and the elderly. Its high-protein, low-carbohydrate content also makes it an attractive meal replacement for individuals desiring to lose weight. Whey provides a complete protein with all essential amino acids. Blend two scoops of protein powder with fruit and liquid of your choice.

other products to see: MediClear, MediClear Plus

Hyper-Ex® a potent extract of St. John's wort

Research confirms the efficacy of *Hypericum perforatum* (St. John's wort) in supporting mental and emotional well-being. Hyper-Ex contains St. John's wort extract, standardized to contain 0.3-percent hypericin.

A meta-analysis of 23 studies involving over 1,500 individuals found significantly positive responses to St. John's wort, based on analysis of the Hamilton Depression Scale (HAMD). One randomized, placebo-controlled, crossover study of 72 patients with major depression found significant improvement within the first two weeks in patients taking 300 mg three times daily of standardized Hypericum extract. At least 12 clinical trials favorably compared St. John's wort to its synthetic prescription counterparts in the management of mood enhancement. One study compared 600 mg Hypericum standardized extract with imipramine 50 mg, both three times daily, in 209 severely depressed patients. The results were similarly positive in both groups, although the Hypericum group experienced significantly fewer side effects. Hypericum also compares favorably to maprotiline and amitryptyline.

Twenty patients suffering from seasonal affective disorder (SAD) were given either 300 mg standardized Hypericum extract three times daily along with bright light or the same dose Hypericum with dim light (apparently not enough to affect SAD). Both groups experienced a significant reduction in Hamilton Depression Scale scores, with no difference between the bright and dim light groups.

Extracts of Hypericum, particularly hypericin, have been found to have in vitro antiviral effects against HIV, HSV and other viruses. A small pilot study confirms potential benefit of Hypericum in vivo. Eighteen people with HIV/AIDS were treated intravenously with a Hypericum preparation twice weekly in addition to oral doses of Hypericum. Sixteen of 18 showed stable or increased CD4 values over a 40-month period. Improvement in CD4/CD8 ratios were observed in the majority of subjects. In addition, only two of 16 positive responders experienced an opportunistic infection during the 40-month observation period.

other products to see: Deproloft, PharmaGABA-PRO, Meta-Balance



neuroendocrine support mood enhancement

Hyper-Ex®

Supplement Facts Serving Size: One CapsulServings Per Container: 90 Each Capsule Contains: % DV St. John's Wort extract (flower) (Hypericum perforatum) (0.3% Hypericin) 300 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule.

90 Vegetarian Capsules Code: SF729 Dosage: 1 to 2 capsules tid

St. John's wort article (3-1) hypericum monograph product data sheet

Warning: Due to interaction with several types of drugs, St. John's wort should be dispensed with care in patients on other medications. In addition to drug interactions, it may cause increased sensitivity to sunlight.



immune support

IM-Encap™

Each Capsule Contains:		% DV
Vitamin A (as Palmitate)	2000 IU.	40%
Vitamin C (as Ascorbic Acid)	150 mg.	250%
Zinc (as Zinc Picolinate)	5 mg.	33%
Thymus (Bovine)	50 mg.	*
Spleen (Bovine)	50 mg.	*
Lymph (Bovine)	50 mg.	*
Echinacea angustifolia (root)	30 mg.	*
Wild Indigo (root) (Baptisia tinctoria)	25 mg.	*
European Elder (flower) (Sambucus nigra)	25 mg.	*
Boneset (herb) (Eupatorium perfoliatum)	20 mg.	*
Tree Peony (5:1) extract (bark root)		
(Paeonia suffruticosa)	20 mg.	*
Pau D'Arco (bark) (Tabebuia impetiginosa)	30 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.[†]

 $^{\dagger}\!A$ hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SG820 Dosage: 2 to 4 capsules every 4 to

> also available 180 Vegetarian Capsules Code: SG821

echinacea article (2-2) colds and flu article (12-1) peony monograph product data sheet

IM-Encap™

A unique combination of glandulars, nutrients, and botanicals for natural immune system support

IM-Encap contains bovine spleen, thymus, and lymph glandulars to nourish and enhance the tone, function, and activity of these same glands in humans. The thymus gland influences many aspects of cellular immunity, including maturation of T-cell precursors. Thymus extracts enhance resistance to infection and improve numerous immune parameters, including normalization of T-helper/T-suppressor cell ratios. Spleen extracts stimulate the production of white blood cells and enhance NK-cell activity. Spleen and lymph extracts also enhance macrophage activity in the liver, spleen, and lymph nodes.

Zinc affects multiple aspects of the immune system, including development of acquired immunity, resistance to various pathogens, and macrophage function. Vitamins A and C stimulate the production and intercellular killing power of lymphocytes against bacteria and viruses.

Echinacea angustifolia, Baptisia tinctoria, Paeonia suffruticosa, Sambucus nigra, Eupatorium perfoliatum, and pao d'arco are botanicals with immunestimulating and antimicrobial properties. Echinacea's immune-enhancing properties are thought to improve host resistance to colds and flu during seasonal outbreaks. Baptisia tinctoria (wild indigo) has antimicrobial and immune-stimulating properties and is frequently prescribed in conjunction with Echinacea in the treatment of chronic viral infections or chronic fatigue syndrome. Paeonia suffruticosa has anti-inflammatory, antibacterial, antipyretic, and analgesic properties. Pau d'arco has demonstrated effectiveness in treating fevers, colds, flu, and other upper respiratory infections due to its antimicrobial, anti-inflammatory, analgesic, astringent, and antioxidant effects. The flavonoids in *Sambucus nigra* (elderberry) extracts are used therapeutically for colds, flu, and *Herpes simplex* infection. Eupatorium perfoliatum (boneset) has also been used extensively for upper respiratory ailments and possesses analgesic, antiparasitic, expectorant, and immune-stimulating properties.

other products to see: Phytogen, Synergisti-C

Indole-3-Carbinol for improved estrogen metabolism

Indole-3-carbinol (I3C) is a compound found in high concentrations in vegetables of the Brassica family, including broccoli, cauliflower, Brussels sprouts, and cabbage.

As a dietary supplement, I3C provides key nutritional support for prevention and management of breast and other types of cancers, and may also be beneficial in the management of *Herpes simplex* virus (HSV) and human papilloma virus (HPV). The majority of ingested I3C is absorbed in the small intestine as the dimer, diindolylmethane (DIM), which is thought to be the primary contributor to I3C's beneficial properties. DIM has been shown to selectively bind to estrogen receptors, and may act as an estrogen antagonist at physiological concentration.

13C up-regulates phase I and II detoxification enzymes and increases the ratio of 2-hydroxy/16-hydroxy estrogens. The 2-hydroxy estrogens, less active than the 16- hydroxy estrogens, are more rapidly eliminated from the body. A high urinary level of 16-hydroxyestrone has been associated with increased risk for breast and other hormone-related cancers. Studies have shown urinary 2:16-hydroxyestrone ratios to be significantly lower in breast cancer cases compared to controls in both pre- and postmenopausal women. Another prospective study found postmenopausal women in the highest tertile of urinary 2:16-hydroxyestrone ratio were 30-percent less likely to develop breast cancer over follow-up periods of up to 19 years.

Preliminary studies have examined its efficacy, safety, and optimal dosage. A 12-week phase I trial conducted on 17 women from a high-risk breast cancer cohort found a 66-percent rise in the urinary 2:16-hydroxyestrone ratio with administration of 400 mg indole-3-carbinol (I3C) daily. I3C and tamoxifen have been shown to act separately and/or cooperatively to inhibit the growth of estrogen receptor-positive (ER+) breast cancer cells. I3C has also been shown in vitro to inhibit the ability of human breast cancer cells to invade surrounding tissue. These studies have been promising, and will likely be followed by larger clinical trials.

other products to see: Calcium D-Glucarate



oncology support women's health detoxification support

Indole-3-Carbinol

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Indole-3-carbinol 200 mg. *Daily Value (DV) not established.

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF749 Dosage: 1 capsule qd - bid

detox booklet indole-3-carbinol article (6-6) indole-3-carbinol monograph product data sheet

BACK TO ALPHA INDEX

Thorne Research specialty formula products — page 142

immune support

Isatis

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Dyer's-Wood (root) (Isatis tinctoria) 350 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule.

60 Vegetarian Capsules Code: SF764 Dosage: 1 to 2 capsules tid

isatis monograph product data sheet

Isatis

a Chinese botanical with broad-spectrum antimicrobial activity

Isatis tinctoria (also known as dyer's woad), is a member of the Brassica family. Documented medicinal use of Isatis in the western tradition extends back to at least the first century A.D., where the leaves and roots have been used primarily for treatment of infections and inflammatory conditions. In traditional Chinese medicine the herb is used to clear heat and toxins from the blood. Root extracts have been used to treat patients with solid tumors and leukemia, a traditional usage that led to purification of the component compound indirubin. Human and *in vitro* studies from China have shown Isatis root extract to possess broad-spectrum antibacterial, antiviral, and antiparasitic activity. Isatis root is also known for its ability to stimulate phagocytic activity of leukocytes and to increase humoral immune functions.

cognitive support

Iso-Phos®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Phosphatidylserine isolate 100 mg. *

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. † Contains ingredient derived from soy.

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF715 Dosage: 1 capsule tid

phosphatidylserine article (1-2) phosphatidylserine monograph product data sheet

Iso-Phos®

the primary membrane phospholipid in brain cells

Phosphatidylserine (PS) is essential for nerve cell membranes to maintain the environment required for optimal brain function. Abundant clinical research has shown this nutrient to be of primary importance in optimizing cognitive function in the aging brain.

Phosphatidylserine improves cell-to-cell communication in the brain, and thus cognitive function, at least in part by increasing cell membrane fluidity. Other mechanisms of action include improved cell metabolism (such as glucose utilization) and enhanced neurotransmitter formation. PS also appears to exert antioxidant effects, potentially protecting the brain from free radical damage.

other products to see: Neurochondria, Memoractiv

% DV

- → no special handling needed; survives stomach acid
- → increases lactic acid production in the colon
- → normalizes gut flora in patients with dysbiosis
- → essential in treating non-specific vaginitis as well as vaginal candidiasis



Lactobacillus Sporogenes

stable probiotic resists destruction by heat or stomach acid

Probiotic bacteria can prevent overgrowth of harmful bacteria and fungi in the intestines, genitourinary tract, and skin. This is accomplished via competitive inhibition, lactic acid production (resulting in an acidic colonic environment), and production of substances with antimicrobial properties. Lactobacillus sporogenes is a lactic acid-producing, spore-forming bacillus, representing a significant breakthrough in Lactobacillus supplementation, with significant advantages over *L. acidophilus. L. sporogenes* is a safe, effective probiotic that needs no special handling, survives in stomach acid, and is delivered to the small intestine without loss of viable organisms. In contrast, many other Lactobacillus products lose most or all of their potency before use, and do not survive well in stomach acid.

Maintaining healthy vaginal flora is essential for preventing and treating non-specific vaginitis as well as vaginal candidiasis. In one study, vaginal administration of *L. sporogenes* was investigated in non-specific vaginitis. In this particular study, subjects with a specific diagnosis of Trichomonas or Candida vaginitis were excluded. Complete relief of pruritis and discharge was reported by 93 percent of subjects. Postmenopausal women required longer treatment.

Lactobacillus sporogenes has been found to lower blood lipid levels, specifically total cholesterol, in patients with type II hyperlipidemia. L. sporogenes is able to bind cholesterol in the intestines, inhibiting absorption. In addition, it is believed to have some HMG-CoA reductase inhibiting activity - thus interfering with cholesterol synthesis.

other products to see: Sacro-B, Perma-Clear

probiotics gastrointestinal support lipid metabolism support

Lactobacillus Sporogenes

Supplement Facts

Each Capsule Contains: Lactobacillus sporogenes† 100 mg.

(providing approximately 1.5 billion CFU's)

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF758 Dosage: 1 capsule bid - tid

lactobacillus sporogenes monograph product data sheet detox booklet



hepatic support

Lipotrepein®

Three Capsules Contain:		% DV
Vitamin B6 (as Pyridoxal 5'- Phosphate)	6.7 mg.	335%
Vitamin B12 (as Methylcobalamin)	50 mcg.	833%
lodine (as Potassium Iodide)	225 mcg.	150%
Magnesium (as Magnesium Aspartate)	20 mg.	5%
Gambir (leaf) <i>(Uncaria gambir)</i>	400 mg.	*
Choline Citrate	400 mg.	*
L-Methionine	400 mg.	*
Dandelion (root) (Taraxacum officinale)	150 mg.	*
Celandine (aerial parts and root)		
(Chelidonium majus)	40 mg.	*
Beet leaf (leaf) (Beta vulgaris)	150 mg.	*
Black Radish (root)		
(Raphanus sativa niger)	150 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

60 Vegetarian Capsules Code: SF700 Dosage: 1 to 2 capsules tid

> taraxacum monograph product data sheet

Lipotrepein®

a premier lipotropic formula

Lipotrepein was one of the first formulas in the Thorne line. A time-tested lipotropic formula, it has consistently been a best seller. Historically, "lipotropic" has been a term applied to substances that prevent the accumulation of fat in the liver and improve lipid metabolism. This term has been expanded to include substances that increase bile output (cholagogues). Numerous nutrients and botanicals are capable of lipotropic activity.

As a precursor to phosphatidylcholine and glycine and their derivatives – betaine, dimethylglycine, and serine – choline is a premier lipotropic. Choline deficiency is a well-documented cause of fatty liver. Choline emulsifies lipids and provides the substrate for phosphatidylcholine biosynthesis, promoting repair of damaged hepatic cell membranes.

B12 and methionine provide methyl groups for numerous metabolic pathways, including synthesis of the detoxification molecules cysteine and glutathione. Phosphatidylcholine is also dependent on methyl groups provided by these nutrients.

Vitamin B6 and magnesium are essential cofactors in hundreds of biochemical reactions, many of which take place in the liver. Vitamin B6 is provided in its active form, pyridoxal 5'-phosphate, because a poorly functioning liver may not convert inactive forms to this key cofactor.

Gambir is an excellent source of catechin, a flavonoid with potent antioxidant and hepatoprotective properties. Dandelion root (*Taraxacum officinale*), beet leaf (*Beta vulgaris*), black radish (*Raphanus sativa niger*), and celandine (*Chelidonium majus*) are botanicals that have been used traditionally to increase bile flow and improve overall liver function.

other products to see: S.A.T., T.A.P.S., Siliphos, Phosphatidyl Choline

 $^{^{\}rm t}\! A$ hypoallergenic ingredient used to fill space.



Liver Cleanse

a synergistic blend of herbs to enhance bile flow and detoxification

For proper detoxification of both endogenous and exogenous toxins, adequate liver function is essential. The liver uses a two-phase method of detoxification. In phase 1, fat-soluble substances are converted via the cytochrome p450 enzymes into intermediate metabolites that are more water soluble, but not yet ready to be eliminated. In phase 2 of liver detoxification, the intermediate metabolites of phase 1 are attached to other substances such as glutathione, sulfur, and methyl groups to create a water-soluble compound that can be excreted. A number of botanicals have demonstrated the ability to improve liver function and increase bile flow from the liver.

Liver Cleanse is a potent combination of herbs that work synergistically to enhance the function of the liver, and is specifically helpful during a comprehensive detoxification program. The herbs in this formula enhance production and flow of bile, which optimizes metabolism and excretion of substances detoxified by the liver. Several of the herbs also provide support for the kidneys. As with all detoxification regimens, proper intestinal elimination is essential. Do not give Liver Cleanse to a constipated individual as toxins released into the bile may be reabsorbed. A person should be having at least one healthy bowel movement daily. Vitamin C and MediBulk can be used in conjunction with Liver Cleanse to assist in bowel cleansing. The recommended starting dose is one capsule taken in the evening. If more liver cleansing is indicated, the dose can be gradually increased.

other products to see: S.A.T., T.A.P.S., Siliphos, Phosphatidyl Choline, MediClear Plus

hepatic support detoxification

Liver Cleanse

Each Capsule Contains:	% D\
A Proprietary Blend of Herbs:	*
Celandine (aerial parts and roots) (Chelidonium ma	ajus)
Fringetree (bark) (Chionanthus virginicus)	
Stinging Nettle (leaf) (Urtica dioica)	
Bearberry (leaf) (Arctostaphylos uva-ursi)	
Dandelion (root) (Taraxacum officinale)	
Milk Thistle (seed) (Silybum marianum)	
Burdock (root) (Arctium lappa)	
*Daily Value (DV) not established.	

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF769 Dosage: 1 capsule qd - tid

detox booklet taraxacum monograph urtica monograph

product data sheet



MERIVA®

CURCUMIN PHYTOSOME

PHYTOSOME TECHNOLOGY

Marked enhancement of bioavailability Significantly greater clinical benefits Assured delivery to the tissues No compromise of nutrient safety Unique time-release matrix

Meriva® is a registered trademark of Indena S.p.A.

A BREAKTHROUGH IN CURCUMIN ABSORPTION

Thorne Research has teamed with Indena S.p.A., the worldwide expert in botanical extract technology, to bring health-care practitioners an exciting new curcumin phytosome called Meriva.

Meriva provides your patients with significantly more bioavailability than any curcumin extract or compound currently available today - and Meriva is manufactured to Indena and Thorne high quality standards.

unlike common herbal extracts, and results in blood levels significantly higher than standardized 95% curcumin extract.

Phytosomes are created by a patented

process that binds an herbal extract to

phosphatidylcholine, a principal element of

cell membranes. This unique phytosome

complex easily crosses the gut barrier,

your partners in wellness





Medibulk®

important soluble fiber for a healthy GI tract

Colonic bacteria utilize soluble fiber and other undigested carbohydrates as food, and subsequently create short-chain fatty acids, which are used by colonic mucosal cells as fuel. The short-chain fatty acids liberated by these bacteria lower colonic pH and shorten the intestinal transit time, which can enhance detoxification and reduce the toxic burden on the liver. Medibulk contains psyllium, pectin, and prune powder as sources of soluble fiber.

Anaerobic fermentation of the soluble non-starch polysaccharides in psyllium results in the production of important short chain fatty acids in the intestines. Butyric acid exhibits antineoplastic activity against colorectal cancer, is the preferred oxidative substrate for colonocytes, and may be helpful in the treatment of ulcerative colitis. In a study of resected colorectal cancer patients, those given 20 grams of psyllium seed daily for three months exhibited an average increase of butyric acid production of 42 percent, which decreased to pretreatment levels within two months of cessation of supplementation.

Soluble fibers also have hypocholesterolemic effects. Clinical indications for Medibulk include constipation, diarrhea, need for colon detoxification, hyperlipidemia, fecal incontinence, hemorrhoids, appetite control, ulcerative colitis, and colon cancer prevention.

Prior to embarking on a detoxification program, it is important to achieve optimal bowel function. Medibulk speeds transit time and binds toxins that have been released into the intestines from the liver, preventing their reabsorption.

Begin with ½ scoop in 8 oz. pure water or dilute fruit juice per night and slowly build up to 2-3 scoops. Follow with at least 8 oz. pure water.

other products to see: Medipro, Formula SF722

gastrointestinal support detoxification lipid metabolism support

Medibulk®

Each (11 g) Scoop Contains:		% DV
Calories	37	
Total Carbohydrates	8 g.	3%*
Dietary Fiber	8 g.	37%*
A proprietary blend of:		
Psyllium powder (seed husk) (Pla	ntago asiatica)	
Prune powder (fruit)		
Pectin (apple)		

This product contains no flavorings or sweeteners.

NET WT. 8 OZ. (227 G) Code: SP621 Dosage: 1 to 2 scoops in 8 ounces of water qd - tid

plantago monograph product data sheet detox booklet

Melatonin, the primary hormone of the pineal gland, acts as a powerful "chronobiotic," maintaining normal circadian rhythms. In patients with sleep disorders and altered circadian rhythms, such as occur in jet lag, night shift work, and various neuropsychiatric disorders, oral administration of melatonin can provide the necessary resynchronization of those cycles, at dosages ranging from 0.3 to 8 mg. Synthesis of melatonin from the amino acid tryptophan is decreased by exposure to magnetic fields and by the aging process. Melatonin is a potent scavenger of free radicals and exerts direct inhibition of cancer growth. Melatonin has also been reported to lower LDL and total cholesterol levels. Abnormally low melatonin levels have been theorized to be a factor in multiple sclerosis, coronary heart disease, epilepsy, and postmenopausal osteoporosis. These reports, while preliminary, serve to further illustrate the wide range of potential effects exerted by melatonin.

neuroendocrine support sleep management

Melaton-1™

Supplement Facts Serving Size: One CapsuleServings Per Container: 90		
Each Capsule Contains:		% DV
Melatonin	1 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF781 Dosage: 1 to 4 capsules at

product data sheet

Melaton-3™

Supplement Facts Serving Size: One CapsuleServings Per Container: 60		
Each Capsule Contains:		% DV
Melatonin	3 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF788 Dosage: 1 to 2 capsules at

product data sheet

Melaton-1™

ideal for sleep and normalizing circadian rhythm

Melatonin administration, regardless of dosage time, exerts a hypnotic and sedative effect when given in doses of 0.3-5.0 mg. If taken before onset of endogenous melatonin secretion, even low doses can induce sleep. Melatonin is thought to potentiate the affects of gamma-aminobutyric acid (GABA) via direct interaction with GABA receptors. Research indicates melatonin exerts a sleep-promoting action by accelerating sleep initiation, improving sleep maintenance, and marginally altering sleep architecture. Thorne's Melaton-1 supplies 1 mg of melatonin in each capsule. This potency is ideal for those patients who may only require a low dose of melatonin to help with sleep or maintaining normal circadian rhythm.

Melaton-3™

higher potency for intermediate dosing

Studies have compared melatonin to several pharmaceuticals for its ability to induce sleep and the effect on psychomotor performance. In a double-blind, placebo-controlled trial, the sleep-inducing potential of melatonin (6 mg single dose) was found to be as effective as some medications. The researchers (using the same patient group and melatonin dosage) also demonstrated that, despite a surprisingly prolonged period of perceived sleepiness (up to 4.75 hours), melatonin was superior to these medications in lack of impact on performance of four separate tasks: serial reaction time, logical reasoning, serial subtraction task, and a multi-task test battery. Studies on endogenous melatonin secretion demonstrate decreased nocturnal melatonin secretion and lower melatonin levels during a migraine. Studies utilizing 3-5 mg oral melatonin for up to one month, reported decreases in headache frequency, intensity, and duration. Thorne's Melaton-3 supplies 3 mg of melatonin per capsule for individuals requiring a higher dose of melatonin.



Melaton-5™

for high-potency melatonin dosing

Various cancer types have been shown to be responsive to oral melatonin (10-50 mg daily), including breast cancer, non-small-cell lung cancer, metastatic renal-cell carcinoma, hepatocellular carcinoma, and brain metastases from solid tumors. In a study of 30 patients with untreatable metastatic solid tumors, 20 mg oral melatonin daily in conjunction with low doses of the antitumor cytokines, interleukin-2 and -12, significantly increased lymphocyte proliferation and the anticancer effect of these cytokines. Research observing the use of melatonin alone or in conjunction with chemotherapy found melatonin may be a beneficial therapeutic tool for patients with colorectal cancer, soft tissue sarcoma, or metastatic hepatocellular carcinoma. A meta-analysis of 10 randomized, controlled trials demonstrated melatonin therapy for various cancers reduced the relative risk of death at one year by an average of 34 percent. These results were independent of cancer type and melatonin dosage, which ranged from 10-40 mg daily; no adverse events were reported.

In a study of 14 metastatic breast cancer patients who had not responded to initial therapy with tamoxifen, 20 mg of melatonin was administered daily in the evening along with tamoxifen. A partial response was seen in 28 percent of patients whose disease would have otherwise been expected to progress rapidly. In those who responded clinically, significant declines were also found in serum levels of the tumor growth factor IGF-1. This response was irrespective of estrogen-receptor status.

Thorne's Melaton-5 supplies 5 mg of melatonin in each capsule, to accommodate a higher dosage regimen. Timing of the melatonin dosage appears to be important, with the most effective protocol being a diurnal cycle similar to the physiological rhythm of melatonin secretion (once daily dosing in the evening before bed).

neuroendocrine support oncology support sleep management

Melaton-5™

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Melatonin *Daily Value (DV) not established

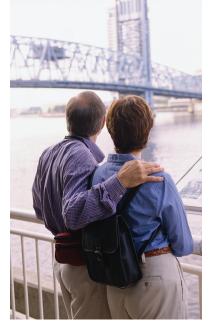
Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine, Silicon Dioxide,

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF780 Dosage: 1 capsule at bedtime

melatonin article (1-2) insomnia article (5-3) SAD article (10-1) cancer article (4-5) melatonin monograph product data sheet

Thorne Research specialty formula products — page 149



cognitive support cardiovascular support

Methyl-Guard®

Supplement Facts Serving Size: One CapsuleServings Per Container: 180

Each Capsule Contains:		% DV
Vitamin B6 (as Pyridoxal 5'- Phosphate)	6.8 mg.	340%
Folate (as 5-Methyl-tetrahydrofolate)	400 mcg.	100%
Vitamin B12 (as Methylcobalamin)	400 mcg.	6666%
Pure Betaine (Trimethylglycine)	600 mg.	*
*Daily Value (DV) not established		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules Code: SF787 Dosage: 2 capsules tid

homocysteine article (1-4) homocysteine article (2-4) homocysteine article (8-1) 5-MTHF monograph product data sheet

Methyl-Guard®

homocysteine metabolism cofactors

Elevated plasma homocysteine has joined cholesterol and triglycerides as a leading indicator of risk for cardiovascular disease. In addition to increased risk for cardiovascular disease, high plasma homocysteine levels have been epidemiologically and clinically implicated in osteoporosis, recurrent miscarriage, cognitive decline, and other neuropsychiatric disorders. Numerous studies advocate lowering plasma homocysteine levels via nutritional supplementation. A number of biochemical abnormalities can raise homocysteine levels. These biochemical defects can be addressed by providing proper nutrient cofactors. Folic acid (as 5-methyl-tetrahydrofolate), vitamin B12 (as methylcobalamin), and betaine (trimethylglycine) are involved in recycling homocysteine to the amino acid methionine, while the breakdown of homocysteine into the beneficial amino acids cysteine and taurine is facilitated by pyridoxal 5'-phosphate (the active form of vitamin B6). Clinical studies have shown each of these nutrients can help lower plasma homocysteine levels.

In addition to the homocysteine-reducing effects of the ingredients in Methyl-Guard, folic acid has been shown to improve vascular endothelial function, working as a cofactor with vitamin C for L-arginine-induced nitric oxide production. Homocysteine is increased in individuals with a common genetic defect involving the enzyme responsible for conversion of folic acid to the active methyl donor 5-methyl-tetrahydrofolate (5-MTHF). Because of this, Methyl-Guard contains 400 mcg of active 5-MTHF per capsule.

Elevated homocysteine is a known risk factor for cognitive impairment and Alzheimer's disease. Significant deficiencies in homocysteine-metabolizing cofactors are commonly seen in the elderly population, with a resultant increase in homocysteine with advancing age. Vascular damage can be caused by elevated homocysteine, resulting in an increased risk of multiple brain infarcts and dementia. Elevated homocysteine levels associated with aging, as well as low levels of folic acid and vitamins B6 and B12, can result in hypomethylation of numerous substances, including DNA and proteins. This in turn renders vascular structures and neurons more susceptible to damage and cell death. Providing the nutritional cofactors for proper functioning of the methionine cycle may improve methylation and protect the brain from damage.

Methyl-Guard was the first homocysteine-lowering supplement on the market, and is the only one that contains the active, body-ready forms of all the homocysteine-metabolizing nutrient cofactors.

other products to see: 5-MTHF

Each woman's experience with menopause is different. While many women have only a few problems, others find this phase of life extremely difficult and troubling. Menopausal symptoms are often experienced years before actual cessation of the menstrual cycle, during what is known as the perimenopausal period. This may last for as long as 10 years, starting most commonly when a woman is in her early-to-mid 40s.

Because of both the short-term side effects and the long-term health hazards associated with conventional hormone replacement therapy, many women choose a more natural approach to allaying the symptoms of menopause. Lifestyle changes can help alleviate some of the uncomfortable symptoms of menopause. For example, increasing aerobic exercise can reduce hot flashes and improve sleep, while reducing consumption of spicy foods and alcohol can also help reduce hot flashes. In addition, a number of herbs and nutritional supplements have been found to be of great benefit during menopause.

Meta-Balance™

for women who need more menopausal nutritional support

Designed to be taken in addition to Meta-Fem, Meta-Balance is a botanical and nutrient formula that can alleviate the discomfort associated with the normal ebbing of hormones associated with menopause, including hot flashes, mood swings, insomnia, anxiety, night sweats, and poor memory. Wild yam, black cohosh, Vitex, and dong quai support the natural decrease in female hormone production. Black cohosh and dong quai have potential estrogenic properties. Vitex appears to have a stimulating effect on the ovaries. Progesterone production also decreases throughout menopause; its loss may be related to accelerated bone loss after menopause as well as other symptoms of menopause. Wild yam provides natural progesterone-like substances. Hesperidin methyl chalcone (HMC) is known for its antioxidant and anti-inflammatory properties as well as its ability to strengthen capillaries. Both HMC and ferulic acid are known to stabilize vasomotor activity associated with menopausal hot flashes. St. John's wort is added for mood stabilization.

other products to see: Meta-Fem, HMC Hesperidin

women's health

Meta-Balance™

Two Capsules Contain:		% DV
Hesperidin Methyl Chalcone	200 mg.	*
Chastetree extract (fruit)		
(Vitex agnus-castus)	100 mg.	*
Dong Quai extract (root) (Angelica sinensis)	100 mg.	*
Wild Yam extract (root) (Dioscorea villosa)	100 mg.	*
Black Cohosh extract (root)		
(Cimicifuga racemosa)	100 mg.	*
St. John's Wort extract (flower head)		
(Hypericum perforatum)	50 mg.	*
Ferulic Acid	25 mg.	*

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

120 Vegetarian Capsules Code: SF711 Dosage: 2 capsules bid - tid

menopause article (8-3) angelica monograph cimicifuga monograph product data sheet



cognitive support

Memoractiv™

Supplement Facts Serving Size: Two CapsulesServings Per Container: 30		
Two Capsules Contain:		% DV
Acetyl-L-Carnitine	500 mg.	*
Phosphatidylserine Isolate	100 mg.	*
Ginkgo extract (leaf) (Ginkgo biloba)		
(24% Ginkgo Heterosides)	40 mg.	*
Bacopa monniera extract (leaf)		
(20% Bacosides)	100 mg.	*
Vinpocetine	10 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, [†] Silicon Dioxide. [†] Contains ingredient derived from soy.

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF737 Dosage: 2 capsules bid - tid

cognitive function article (4-3)
acetyl-L-carnitine monograph
bacopa monograph
vinpocetine monograph
ginkgo monograph
phosphatidylserine monograph
product data sheet

Memoractiv™

a comprehensive memory-enhancing formula

Thorne Research has created a comprehensive, synergistic blend of the most widely studied supplements known to promote brain health in one memory-enhancing product. The ingredients in Memoractiv have been proven to enhance cognitive function via a variety of therapeutic mechanisms, and are provided in a convenient combination formula. Double-blind trials of phosphatidylserine (PS) demonstrate benefits for older subjects with mild-to-moderate dementia, as well as middle-aged subjects with age-related cognitive decline. PS partially restored learning and recall capacities in this population. On name-face matching PS improved performance from a functional age of 64 to a functional age of 52. PS can benefit individuals in stressful situations. Three double-blind trials established that in young, healthy male athletes subjected to heavy exercise regimens PS reduced cortisol production while controlling muscle soreness and other aspects of overtraining.

Acetyl-L-carnitine (ALC) has been employed in the management of cognitive decline. In one double-blind trial conducted with cognitively impaired ex-alcoholics ages 30-60, 2 g ALC daily for three months improved memory, visuo-spatial capacity, and vocabulary recall. In controlled trials, ALC also improved depression, cooperation, sociability, and attention to personal appearance.

Ginkgo biloba enhances mental alertness, reaction time, memory, and cognition. Many studies have shown Ginkgo improves mental functioning in individuals with age-related memory loss and mild-to-moderate dementia. A meta-analysis evaluating six Ginkgo studies found between 17 and 71 percent of patients were benefited at average daily dosages of 160 mg Ginkgo extract (24% ginkgo heterosides).

Improved GABA levels are one of the mechanisms attributed to Bacopa monniera. An Ayurvedic herb, Bacopa is neuro-protective and has been shown to improve memory and learning.

Vinpocetine enhances cerebral circulation and oxygen utilization, resulting in improved cognitive function. In double-blind trials conducted with patients suffering from mild-to-moderate vascular dementia, vinpocetine benefited memory, learning, and global clinical measures of cognitive performance. Speech and language also improved.

other products to see: Carnityl, Bacopa, Vinpocetine, GB24, Iso-Phos



Moducare

an important advancement in natural immune system modulation

Moducare is a proprietary blend of plant sterols and sterolins that modulates the immune system. Plant sterols – phytosterols and their glycosides (also known as phytosterolins) – are fats present in fruits, vegetables, and medicinal plants. Beta-sitosterol (BSS) and its glycoside (BSSG) are the most abundant of these plant sterols. BSS and BSSG, even at very low levels, have been shown to enhance the activity of T-helper 1 (TH1) cells, cytotoxic T-cells, and NK cells. Up-regulation of TH1 activity is coupled with a corresponding down-regulation of an overactive T-helper 2 response and a subsequent decrease in inflammatory cytokine production – all of which can benefit those with allergies, chronic viral diseases, and autoimmune conditions.

Moducare supplementation reduces inflammatory cytokine production, helps maintain a normal cortisol-to-DHEA ratio, and improves the balance of TH1 to TH2 cells. This enhances cellular immunity and down-regulates hyperactive immune responses associated with asthma and allergic rhinitis.

Decreased activity of TH1 cells can also correspond to a decrease in serum DHEA levels. Plant sterols have been shown to maintain cortisol and elevate DHEA levels, thereby decreasing the cortisol-to-DHEA ratio and subsequently buffering negative stress responses. The potential Moducare to inhibit immune suppression in a group of volunteers participating in an ultramarathon event was investigated in a double-blind, placebo-controlled study. The study found the hematological changes that accompany endurance exercise were more pronounced in individuals who received placebo than in those who received Moducare. The placebo individuals demonstrated neutrophilia with severe lymphopenia characterized by a profound decrease in the total number of T cells, especially the T helper (CD4) subset. These abnormalities were primarily negated or reversed in volunteers in the treatment group.

immune support respiratory support allergy support

Moducare®

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Sterols 20 mg. * Sterolins 200 mcg. *

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SP633 Dosage: 1 to 2 capsules tid

plant sterols article (4-3) plant sterol and sterolin monograph product data sheet

musculoskeletal support

MSM-750™

Supplement Facts Serving Size: One CapsuleServings Per Container: 240 Each Capsule Contains: % DV MSM (Methyl Sulfonyl Methane) 750 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

[†]A hypoallergenic ingredient used to fill space.

240 Vegetarian Capsules Code: SF712 Dosage: 1 to 2 capsules bid

sulfur article (7-1)
interstitial cystitis article (8-4)
methylsulfonylmethane monograph
product data sheet

MSM-750

an important source of organic sulfur

Methyl sulfonyl methane (MSM), also known as dimethyl sulfone (DMSO $_2$) and methyl sulfone, is an organic sulfur-containing compound that occurs naturally in a variety of fruits, vegetables, grains, and animals including humans. MSM possesses anti-inflammatory activity.

A double-blind study found a combination of MSM and glucosamine sulfate resulted in significant improvement in signs and symptoms of osteoarthritis compared to placebo. Another double-blind trial studied the use of MSM in degenerative arthritis. At a dose of 750 mg daily for six weeks, the study group showed significant improvement compared to the placebo group.

other products to see: AR-Encap, Meriva

immune support

Myco-Immune[™]

Supplement Facts Serving Size: 1/2 Dropperful	
Contains a Proprietary Blend of:	% DV
Cordyceps sinensis (Caterpillar mushroom)	*
Ganoderma lucidum (Reishi)	*
Lentinula edodes (Shitake)	*
Grifola frondosa (Maitake)	*
Coriolus versicolor (Turkey Tail)	*
Tremella fuciformis (White Wood Ear)	*
Schizophyllum commune (Split Gills)	*
*Daily Value (DV) not established.	

Other Ingredients: 20 - 30% alcohol by volume.

2 FL. OZ. (60 ml) Code: SP629 Dosage: 1 to 2 dropperfuls

product data sheet

Myco-Immune™

Cordyceps, Tremella, Schizophyllum, Coriolus, reishi, maitake, and shiitake extracts in liquid form

Mushrooms have been used medicinally by many cultures for thousands of years. Proteoglycans and polysaccharides, including alpha- and beta-glucans, are believed to be the active ingredients in many of these mushroom species. The seven mushrooms in Myco-Immune are the best-researched mushrooms known, and have been shown in numerous studies to be potent immune enhancers.

Research demonstrates the mushrooms in Myco-Immune increase macrophage and NK-cell activity, phagocytosis, and interferon-gamma and interleukin-1 and -2 production. Cordyceps, reishi, maitake, Schizophyllum, and Tremella also stimulate B- and T-lymphocytes. Cordyceps, shiitake, and Coriolus possess antimicrobial activity against several bacteria and viruses, and shiitake, maitake, Coriolus, and Tremella have demonstrated antitumor effects.

- → muscle relaxing botanicals
- → for relief of aches and muscle spasms from overuse and injury
- → support for menstrual cramping



Mvorel®

botanical support for muscle relaxation

Increased muscle tension and spasm can be attributed to many factors, such as psychological stressors, physical overexertion, and menstruation. Myorel combines ashwagandha, black cohosh, cramp bark, and valerian for gentle muscle relaxation. This formula is of particular benefit in cases of muscle cramping. Valerian has muscle-relaxant qualities, with the constituents valerenic acid, valtrate, and valeranone responsible for its spasmolytic activity. Valerian is traditionally used in the treatment of muscle spasms and intestinal spasms/colic. Ashwagandha, often referred to as Indian ginseng, exerts important adaptogenic, anti-inflammatory, and antistress effects. Viburnum opulus is also known as cramp bark because of its antispasmodic effect, not only for uterine cramps but muscles of the skeletal system. Black cohosh has been used traditionally as a tonic to relieve nerve pain, particularly due to muscle spasms.

The antispasmodic herbs in Myorel can provide uterine relaxation, relieving menstrual cramps. Valerian and ashwagandha have general antispasmodic effects, whereas cramp bark and black cohosh have specific affinity for the uterus. In addition to antispasmodic effects that help reduce painful menses, the herbs in Myorel, particularly valerian and black cohosh, have mild sedative effects, which can help alleviate anxiety associated with PMS.

musculoskeletal support women's health

Myorel®

Each Capsule Contains:		% DV
Cramp bark (bark) (Viburnum opulus)	100 mg.	*
Valerian extract (root) (Valeriana officinali:	s) 100 mg.	*
Black Cohosh extract (root)		
(Cimicifuga racemosa)	50 mg.	*

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF772 Dosage: 1 to 2 capsules tid

withania somnifera monograph valerian monograph product data sheet



cardiovascular support

Neo-Cardio™

Supplement Facts Serving Size: Three CapsulesServings Per Container: 30		
Three Capsules Contain:		% DV
Vitamin B3 (from 20 mg Niacin and		
300 mg Inositol Hexaniacinate)	290 mg.	1450%
Magnesium (as Magnesium Citrate-Malate)	100 mg.	25%
Terminalia arjuna extract (bark)		
(2% Arjunolic Acid)	500 mg.	*
Inula racemosa extract (2% Allantolactone)	350 mg.	*
Astragalus membranaceus (Huang-Qi) (root)	200 mg.	*
Bromelain (3200 m.c.u. minimum)	170 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

90 Vegetarian Capsules Code: SF716 Dosage: 1 to 2 capsules tid

cardio botanicals article (3-6) terminalia arjuna monograph product data sheet

Neo-Cardio™

nutritional support for cardiovascular function

Neo-Cardio is a synergistic blend of cardiotonic herbs, key nutrients, and the proteolytic enzyme bromelain for optimal cardiac function. Scientific investigation demonstrates the ability of *Terminalia arjuna* to improve left ventricular ejection fraction and stroke volume. An open study of Terminalia's effects on stable and unstable angina revealed a 50-percent reduction of angina episodes in patients with stable angina after three months. A statistically significant reduction was also noted in systolic blood pressure in these patients. In a small, double-blind study, dyspnea, fatigue, edema, and walking tolerance all improved in patients with congestive heart failure while taking Terminalia. Treatment with Terminalia was also associated with significant improvements in stroke volume and left ventricular ejection fraction compared to placebo.

Inula racemosa can prevent ST-segment depression and T-wave inversion in post-exercise electrocardiograms (ECG). The efficacy of Inula compared to nitroglycerin for prevention of angina symptoms was studied in nine subjects with ischemic heart disease. All patients experienced chest pain and ECG ST-segment depression (indicative of myocardial ischemia) on exertion. After pre-treatment with Inula or nitroglycerin 90 minutes prior to testing, all nine subjects had improvement in ST-segment depression on ECG, with greater improvements seen after Inula treatment.

In a study of 43 patients given Astragalus after acute myocardial infarction, the herb significantly improved left ventricular function compared to controls. In an angina study, 92 individuals with ischemic heart disease who were treated with Astragalus experienced marked improvement in angina compared to controls.

Bromelain inhibits platelet aggregation, modulates prostaglandin synthesis, and promotes fibrinolytic activity. Research indicates bromelain prevents or minimizes the severity of angina pectoris. A significant reduction in the incidence of coronary infarct after administration of potassium and magnesium along with 120-400 mg bromelain daily has been reported.

Inositol hexaniacinate has a favorable impact on blood lipids and reduces the susceptibility of LDL cholesterol to oxidative damage. It has also been found to benefit individuals with poor peripheral circulation, including peripheral artery disease (PAD) and Raynaud's disease.

Magnesium is often deficient in individuals with cardiovascular disease. Supplementation has been found to benefit individuals with hypertension and mitral valve prolapse and prevent ischemia-reperfusion injury.

[†]A hypoallergenic ingredient used to fill space.

- → nutrients for exceptional neurological support
- → for prevention and treatment of neuropathies
- → nutrient support for individuals with Parkinson's disease, MS, etc.
- → convenient all-in-one product



Neurochondria®

superior neuroprotective formulation

Numerous conditions are associated with neurodegeneration and are becoming more prevalent due to increased lifespan, environmental toxicity, and poor diet with subsequent nutrient deficiencies.

The incidence of diabetes has reached epidemic proportions. In addition to the direct effects of high blood sugar, secondary consequences include neurological damage resulting in autonomic and peripheral neuropathies.

Mitochondrial insufficiency appears to be at the root of neurodegeneration. The mitochondria, important cellular powerhouses, are also a significant source of free radical production, even in healthy individuals. The aging process, poor diet, and environmental toxins stress the body's endogenous antioxidant system, rendering it less capable of quenching free radicals.

Thorne Research introduces Neurochondria — a truly superior formulation in the war against neurodegeneration! This revolutionary new product includes the best researched nutrients for neurological support. These nutrients provide antioxidant protection for sensitive neuronal tissue (R-lipoic acid and glutathione), enhanced neurotransmitter synthesis (acetyl-L-carnitine), improved mitochondrial energetics (CoQ10), cell membrane support (phosphatidylserine), and improved nerve cell function (benfotiamine, 5-MTHF, and methylcobalamin).

other products to see: Glutathione-SR

neuroendocrine support neurological support

Neurochondria®

Three Capsules Contain:		% DV
Thiamine (as Benfotiamine)	150 mg. 1	10,0119
Vitamin B12 (as Methycobalamin)	1500 mcg. 2	25,020%
Folate (as 5-Methyl-tetrahydrofolate)	300 mcg.	75%
Coenzyme Q10	150 mg.	*
R-Lipoic Acid	120 mg.	*
Reduced Glutathione	150 mg.	*
Acetyl-L-Carnitine	300 mg.	*
Phosphatidylserine	150 mg.	*

Other Ingredients: MagnesiumCitrateLaurate,[†] Hypromellose (derived from cellulose) capsule, Leucine,[†] Silicon Dioxide.[†] Contains ingredient derived from soy.

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF754 Dosage: 1 capsule bid

neuropathies article (11-4)
mitochondria article (10-4)
parkinsons disease article (5-6)
multiple sclerosis article (4-6)
product data sheet
neurochondria sales sheet



cognitive support

Nutri-ADD™

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 One Cansule Contains: % DV Vitamin B12 (as Methylcobalamin) 1000 mcg. 16,670% Chromium (as UltraChrome®) 41.6% 50 mcg. Phosphatidylserine Isolate 100 mg. Bacopa monniera extract (leaf) 150 mg. (20% Bacosides) 25 mg. Lactobacillus sporogenes Grape Seed Phytosome (Vitis vinifera extract / Phosphatidylcholine complex)

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. † .

Contains ingredients derived from soy.

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF754 Dosage: 1 capsule bid

> AD/HD article (5-5) AD/HD article (8-3) product data sheet

Nutri-ADD

nutritional support for greater mental focus – now with highly bioavailable Leucoselect® Grape Seed Phytosome

Nutri-ADD is a unique combination of nutrients and botanicals demonstrated to enhance attention, mental focus, and cognitive functioning, formulated in a small-sized capsule for ease of swallowing. Phosphatidylserine is an important cell membrane phospholipid with especially high concentrations in the brain. Clinical research suggests it may improve attention and learning. Bacopa monniera is an Ayurvedic herb found to enhance learning. Administration of the herb to schoolchildren demonstrates increased memory and improved reaction and performance times. Oligomeric proanthocyanidin (OPC) extract (bound to phosphatidylcholine as Leucoselect Phytosome) possesses potent antioxidant and membrane-stabilizing activity, which supports healthy blood-brain barrier integrity. Reports from physicians and parents claim OPC supplementation improves attention and mental focus in children. Individuals with attention deficit problems often have concomitant sleep disturbances. Studies indicate methylcobalamin, an active form of vitamin B12, improves sleep quality and restores normal circadian rhythms, resulting in improved concentration and alertness. Intestinal flora imbalance from frequent antibiotic use is common among children, particularly those with learning difficulties. The *Lactobacillus sporogenes* in Nutri-ADD helps improve gut dysbiosis. Normal blood sugar levels are essential to optimal learning and comprehension. Nutri-ADD contains UltraChrome, our exclusive bioavailable chromium, to assure proper carbohydrate metabolism.

For best results take Nutri-ADD with Children's Basic Nutrients, or one of our other Basic Nutrients multi vitamins, and DHA to ensure comprehensive nutritional support.

other products to see: DHA, Memoractiv

→ a complete formula for eye health containing essential nutrients and antioxidants in therapeutic levels



Ocu-Clear™

a comprehensive formula for optimal visual function

During waking hours, the eye is continuously exposed to oxygen and light, and unavoidably exposed to smoke, pollutants, and chemicals. The resultant oxidative processes and decreased antioxidant capacity are implicated in many eye-related problems. On the other hand, several antioxidant vitamins, minerals, carotenes, and flavonoids have been shown to be essential for clear vision and the health of the eye. Ocu-Clear contains a broad spectrum of nutrients and plant extracts that are vital to optimal eye health.

The protective nutrients in Ocu-Clear include the full spectrum of carotenes (from mixed carotenes), selenium, zinc, vitamin C, lipoic acid, glutathione, and vitamin E, all of which are vital components of the antioxidant capacity of the retina and lens of the eye.

Plant extracts also provide important protection for the eye. Lutein is a vital component of the macula, and may provide antioxidant protection to this area of the retina. *Vaccinium myrtillus* (bilberry extract) is an excellent source of anthocyanoside flavonoids, which have an affinity for the retina. In addition to their antioxidant activity, these flavonoids act to stabilize vascular and collagenous structures. *Ginkgo biloba* also acts as an antioxidant and membrane stabilizer. Quercetin is an aldose reductase inhibitor, which reduces sorbitol accumulation in the lens of the eye. Quercetin chalcone is Thorne's patented, well-absorbed, water-soluble quercetin.

The retina of the eye contains one of the highest concentrations of the amino acid taurine in the body. In addition to acting as an antioxidant in the eye, taurine seems to be a regulator of neuronal excitability, osmoregulation, detoxification, and membrane stabilization.

Ocu-Clear enhances ocular antioxidant activity, helps maintain normal intraocular pressure, strengthens ocular collagen structures, and improves circulation to the eye to enhance vision.

other products to see: Vacimyr

ocular support

Ocu-Clear™

Two Capsules Contain:		% DV
Vitamin A (from mixed Carotenes)	15,000 IU.	3009
Vitamin C (as Ascorbic Acid)	250 mg.	4169
Vitamin E (as d-Alpha Tocopheryl)	200 IU.	6679
Riboflavin (as Riboflavin 5' - Phosphate)	3.6 mg.	2129
Zinc (as Zinc Picolinate)	10 mg.	679
Selenium (as Selenium Picolinate)	100 mcg.	1439
Copper (as Copper Picolinate)	1 mg.	509
Reduced Glutathione	50 mg.	*
Taurine	250 mg.	*
Bilberry extract (fruit) (Vaccinium myrtillu	ıs)	
(25% Anthocyanosides)	50 mg.	*
Ginkgo extract (leaf) (Ginkgo biloba)		
(24% Ginkgo Heterosides)	50 mg.	*
Quercetin Chalcone	100 mg.	*
R-Lipoic Acid	25 mg.	*
Tr Espero Alexa		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF798 Dosage: 1 to 2 capsules tid

ocular article part I (4-5) ocular article part II (6-2) vaccinium monograph lutein monograph product data sheet



Osteoporosis Risk Factors

- → being a woman
- → being postmenopausal
- → having undergone a complete hysterectomy
- → having a history of hypoestrogenic amenorrhea
- → having an inactive lifestyle
- → smoking
- → consuming too much sugar, caffeine, or alcohol
- → being small-boned
- → being Anglo-Saxon or Asian
- → being on steroids or anticonvulsants for a prolonged period of time

bone support women's health

Oscap[™]

Supplement Facts Serving Size: Four CapsulesServings Per Container: 30 Four Capsules Contain: % DV Vitamin D (as Vitamin D3) 400 IU. 100% Vitamin B6 (as Pyridoxal 5'- Phosphate) 27 mg. 1350% Folate (100 mcg as Calcium Folinate and 100 mcg as 5-Methyl-tetrahydrofolate) 200 mcg. 50% Vitamin B12 (as Methylcobalamin) 100 mcg. 1667% Calcium (as Calcium Citrate-Malate) 450 mg. 45% Magnesium (as Magnesium Citrate-Malate) 225 mg. Boron (as Boron Picolinate) Vanadium (as Vanadium Picolinate) 100 mcg. Horsetail† (plant powder) (Equisetum arvense) *Daily Value (DV) not established.

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

120 Vegetarian Capsules Code: SG822 Dosage: 2 capsules bid

osteoporosis article (2-1) calcium article (4-2) product data sheet

Oscap™

a comprehensive bone-building formula

Osteoporosis prevention should consist of more than just calcium supplementation. Oscap provides vitamins and minerals essential for optimal bone density. The calcium is bound to citrate-malate, one of the best-absorbed forms of dietary calcium available. Dosages of calcium (citrate-malate) as low as 500 mg daily have been shown to significantly reduce bone loss. Adequate magnesium intake maintains bone density by regulating parathyroid hormone secretion and facilitating active calcium transport. Like calcium, the magnesium is provided in the highly absorbable citrate-malate form. Oscap provides vitamin D3, which facilitates absorption of calcium; boron, which assists the body's metabolism of vitamin D and estrogen; and vanadium, which may prevent osteopenia. Research indicates increased homocysteine levels interfere with the integrity of the collagenous bone matrix. Oscap contains methylcobalamin (the active form of vitamin B12), folinic acid and 5-methyl-tetrahydrofolate, (the active forms of folic acid), and pyridoxal 5'-phosphate (the active form of vitamin B6) for their function in maintaining low homocysteine levels. Equisetum arvense (horsetail) has been added as an excellent source of organic silica, an element found in high concentrations in healthy bones. In an effort to provide a bone-building formula that can be used by people taking bloodthinning medications, Oscap does not contain vitamin K.

other products to see: Ipriflavone, D-5000

- → complete formula for prevention of osteoporosis
- → contains the best-absorbed citrate-malate calcium and magnesium
- → contains ipriflavone, proven to increase bone density

Oscap Plus™ with ipriflavone and vitamin K

In addition to all the bone building nutrients in Oscap, Oscap Plus adds the isoflavone ipriflavone for enhanced bone protection. Extensive human studies show ipriflavone not only helps slow the rate of bone loss, but also enhances bone density and decreases fracture risk. Over 60 human clinical trials have demonstrated ipriflavone's effectiveness in enhancing bone density. A six capsule per day dosage of Oscap Plus provides 600 mg ipriflavone, the amount used in the majority of these studies. In addition, because research indicates bone-building benefit of both vitamins K1 and K2, they are both included in Oscap Plus. Vitamin K activates osteocalcin, the protein that facilitates incorporation of calcium into the bone matrix.

other products to see: D-5000, Vitamin K2

bone support women's health

Oscap Plus™

Six Capsules Contain:		% DV
Vitamin D (as Vitamin D3)	600 IU.	150%
Vitamin K (as 400 mcg Vitamin K1 and		
400 mcg Vitamin K2)	800 mcg.	1000%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	27 mg.	1350%
Folate (100 mcg as Calcium Folinate and		
100 mcg as 5-Methyl-tetrahydrofolate)	200 mcg.	50%
Vitamin B12 (as Methylcobalamin)	100 mcg.	1667%
Calcium (as Calcium Citrate-Malate)	600 mg.	60%
Magnesium (as Magnesium Citrate-Malate) 300 mg.	75%
Ipriflavone	600 mg.	*
Boron (as Boron Picolinate)	3 mg.	*
Vanadium (as Vanadium Picolinate)	100 mcg.	*
Horsetail† (plant powder)		
(Equisetum arvense)	50 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

180 Vegetarian Capsules Code: SG823 Dosage: 2 capsules tid

osteoporosis article (2-1)
calcium article (4-2)
ipriflavone article (4-1)
ipriflavone monograph
product data sheet

Osteoporosis is the most common bone disease in the United States, affecting as much as 50 percent of the population over age 65. As people age, they experience an increase in bone loss in relation to bone formation. This can result in thinning of the bones, making them more susceptible to fracture.

Prevention of osteoporosis should begin well before menopause. Because some bone loss during menopause is inevitable, the more bone a woman has "banked" earlier in life the greater her peak bone mass will be, and, hence, menopausal bone loss will have less of an adverse impact. Even women in the 18-35 year age group can exhibit low bone density. Risk factors in this age group include physical inactivity, low body weight, eating disorders, poor nutrition, and menarche at age 15 or later.

[†]A hypoallergenic ingredient used to fill space.

specialty formula products - page 162

immune support

Olive Leaf Extract

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Olive Leaf extract (20%) 500 mg *Daily Value (DV) not established. Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF763 Dosage: 1 capsule tid

colds and flu article (12-1) product data sheet

Olive Leaf Extract

natural antimicrobial botanical with potent antioxidant properties

Olive leaf extract is derived from olive tree (Olea europaea) leaves and contains phenolic compounds, specifically oleuropein, that have demonstrated potent antimicrobial, antioxidant, vasodilatory, and antiinflammatory effects. Oleuropein and its derivatives can be effective against a variety of microorganisms, including retroviruses, herpes, influenza, and coxsackie viruses, as well as some fungi, yeast, bacteria, and parasitic protozoans. In addition to antimicrobial effects, oleuropein constituents are potent antioxidants and can inhibit the in vitro oxidation of low density lipoprotein, and scavenge superoxide radicals. Evidence suggests olive leaf extract may be effective for dilation of coronary blood vessels, improved blood flow to the heart, lowering blood pressure, and normalizing cardiac rhythm.

gastrointestinal support dermatology probiotics

Perma-Clear®

Supplement Facts Serving Size: Four CapsulesServings Per Container: 45 Four Capsules Contain: % DV L-Glutamine 1200 mg. N-Acetylglucosamine 1000 mg. Saccharomyces boulardii 150 mg. Lactobacillus sporogenes 100 mg. * Quercetin Chalcone 150 mg. Ginger extract (root) (Zingiber officinalis) (5% Gingerols) 40 mg. *Daily Value (DV) not established.

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules Code: SF741 Dosage: 2 capsules tid

NOTE: Quercetin Chalcone is a water-soluble form of Quercetin, U.S. Patent No. 5,977,184.

intestinal permeability article (2-5)

IBD article part I (8-3)

IBD article part II (9-4)

product data sheet

Perma-Clear® for improved intestinal permeability

Altered intestinal microbial flora can occur alone, but often is just one component of gastrointestinal dysfunction that can include inflammation, malabsorption, and increased gut permeability. In the latter case, molecules that should be too large to cross the gut mucosa get absorbed into the bloodstream. This can result in food allergies, inflammation, asthma, autoimmune processes, and other systemic symptoms.

Perma-Clear provides nutrients and botanicals shown to nourish the intestinal tract and improve gut permeability: Glutamine - nourishes and promotes healing of intestinal mucosal cells. N-acetylglucosamine promotes both a normal mucus layer in the gut and the growth of *Bifidobacterium* bifidum. Ginger provides antioxidant and anti-inflammatory activity. Ouercetin chalcone – dampens histamine release and inhibits inflammation. Lactobacillus sporogenes – promotes a beneficial gut flora. Saccharomyces boulardii - stimulates immune mechanisms and inhibits translocation of Candida species.

other products to see: Sacro-B, Lacobacillus Sporogenes, L-Glutamine, MediClear Plus

- → for anyone exposed to pesticides
- → part of a unique line of products designed for environmental detoxification
- → key ingredients specific to pesticide exposure and subsequent deficiencies

Pesticide Protector

for individuals with present or past exposure to pesticides

The presence of pesticides in human tissue samples is ubiquitous, with nearly all people tested in numerous studies registering measurable levels of some type of pesticide. Pesticide exposure results primarily in neurotoxicity, but can significantly affect the immune and endocrine systems as well. In fact, no organ system in the body is immune from the effects of pesticides. Pesticide Protector is specifically formulated to aid the body in detoxification of chlorinated pesticides, organophosphates, carbamates, and pyrethrins. Patients who may benefit from supplementation with Pesticide Protector include those with current exposure (from lawn and garden chemicals, spraying of buildings, travel through major agricultural areas), individuals with chronic health problems and a history of significant past exposure, and chemically sensitive individuals (they often have detectable pesticide residues in their serum).

Because pesticides are neurotoxins, alpha lipoic acid is included as a potent neuroprotective antioxidant. Vitamin E helps prevent oxidative damage caused by organophosphates and carbamates. Both thiamine (B1) and vitamin A are depleted by chlorinated pesticides.

other products to see: DHA, Basic Detox Nutrients

detoxification

Pesticide Protector[™]

Supplement Facts Serving Size: One CapsuleServings Per Container: 90

Each Capsule Contains:		% DV
Vitamin A (as Palmitate)	500 IU.	10%
Vitamin E (as d-Alpha Tocopheryl)	100 IU.	25%
Thiamine (as Thiamine HCI)	25 mg.	1667%
Alpha Lipoic Acid	100 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

90 Vegetarian Capsules Code: SF794 Dosage: 1 capsule tid

detox booklet pesticide article (5-5) alpha lipoic acid monograph product data sheet

[†]A hypoallergenic ingredient used to fill space.



Petadolex®

prevents and treats migraines, relieves bronchial spasms and allergic rhinitis

Butterbur (*Petasites hybridus*) has been used in traditional phytotherapy for thousands of years. It is described as having spasmolytic (muscle relaxing), anti-inflammatory, and pain-relieving effects. Petadolex supplementation results in inhibition of lipoxygenase activity and a subsequent down-regulation of leukotriene synthesis. This results in anti-inflammatory and antispasmodic effects with reduced pulmonary inflammation and maintenance of bronchial smooth muscle tone in asthma and bronchitis patients. Selective inhibition of the COX-2 isoenzyme results in reduction of inflammatory prostaglandin levels. Clinical studies show increased respiratory function in asthmatics and concomitant reduction in the use of pharmaceutical medications with Petadolex.

Petadolex has also been used successfully for allergic rhinitis, which is usually also found in asthmatics. A 2004 study showed that 8 mg three times daily for seven days reduced allergy symptomatology more than Allegra® (fexofenadine). Similar significant improvement over Allegra was found in a large Swiss study in 2005. Six studies involving over 650 patients have demonstrated butterbur's effectiveness in relieving allergic rhinitis symptoms, compared to placebo, fexofenadine, and ceterizine (Zyrtec®).

Butterbur's greatest utility may in the prevention and treatment of migraines. Studies on the standardized extract in Petadolex demonstrate significantly fewer migraines in patients who supplement with butterbur; up to a 60-percent decrease was seen in two studies involving 128 patients. Even those with breakthrough migraines experienced less duration and intensity of pain.

The adult dosage for Petadolex is one capsule twice daily with meals. If supplementing acutely for an impending migraine, 2-3 capsules twice daily can be taken. Petadolex can be used long-term, since potentially toxic pyrrolizidine alkaloids in the plant are removed in the extraction process.

respiratory support allergy support neurovascular support

Petadolex®

Other Ingredients: All natural coloring: riboflavin, glycerole, gelatin and titanoxide.

50 Gelcaps Code: SP627 Dosage: 1 gelcap bid with meals

> migraine article (6-3) asthma article (9-1) petasites monograph product data sheet

- → binds to cholesterol in the gut, preventing its absorption
- → does not interfere with absorption of essential nutrients
- → can be used with other therapeutic interventions
- → easy, once-daily dosing



Pharmacol-40®

introducing Pharmacol-40, a new, patented product from Thorne Research.

In an effort to reduce cardiovascular disease risk, many health-care practitioners suggest dietary changes and prescribe substances to improve blood lipid levels. Some of the methods employed, such as HMG CoA reductase-inhibiting (statin) drugs, are not well-tolerated by some patients, while other individuals are opposed to taking these drugs. In addition, some individuals do not reach target serum cholesterol and LDL levels with statin drugs alone. Most of the cholesterol in the bloodstream is produced in the liver, with a smaller amount derived from the diet. Addressing both hepatic production and gastrointestinal absorption of cholesterol can be of benefit in maintaining normal cholesterol levels.

Pharmacol-40 is a specific low-molecular weight polysaccharide derived from the enzymatic hydrolysis of chitin, a polyglucosamine substance found in crab and shrimp shells. Pharmacol-40 is a large molecule that resists digestion and therefore is not absorbed into the bloodstream - instead, it remains in the gastrointestinal tract where it attaches to dietary cholesterol, forming an insoluble complex that is not absorbed. Pharmacol-40 also binds cholesterol produced in the liver and secreted in the bile, preventing its reabsorption in the intestines. In a placebo-controlled, multicenter, clinical trial, 105 patients with mild-to-moderate hypercholesterolemia were randomized to receive HEP-40 (the active ingredient in Pharmacol-40) at varying doses or placebo and were evaluated at baseline, four, eight, and 12 weeks. A significant decrease in LDL cholesterol was observed, compared to placebo, in the group taking 2,400 mg once daily (-16.9%; p=0.002). Since Pharmacol-40 binds to cholesterol in the gut, the researchers assessed whether fat-soluble vitamin absorption might be inhibited. Serum 25(OH) vitamin D levels were tested in a random sample of 91 patients and 22 in the placebo group at baseline and at 12 weeks. No significant difference was seen between groups. This study showed Pharmacol-40 is efficacious in reducing serum LDL cholesterol and is safe and well tolerated.

Pharmacol-40 has shown significant benefit by itself, and can be used in conjunction with Choleast and Super EPA for maximum maintenance of lipid levels.

other products to see: Choleast, Policosanol, Super EPA, Niasafe-600

lipid metabolism support cardiovascular support

Pharmacol-40™

Supplement Fa Serving Size: Three CapsulesServings Pe		
Three Capsules Contain:		% DV
Chitosan-40kDa**	2400 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: MagnesiumCitrateLaurate,† Hypromellose (derived from cellulose) capsule.

Contains ingredient derived from shellfish (shrimp, crab).

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SP651 Dosage: 3 capsules once daily with evening meal

** A specific low molecular weight Chitosan produced by a patented enzymatic hydrolysis.

> **HEP study (12-3)** pharmacol-40 sales sheet product data sheet



lipid metabolism support cardiovascular support hepatic support

Phosphatidyl Choline

Each Gelcap Contains:		% DV
Calories	7	
Calories from Fat	7	
Total Fat	1 g.	<2%*
Saturated Fat	0 g.	0%*
Soy Phosphatide Complex	1300 mg.	**
Phosphatidyl Choline	420 mg.	**

Other Ingredients: Gelatin (tilapia) and glycerine (vegetable source) capsule.

Contains ingredient derived from fish (tilapia). Contains ingredient derived from soy.

> 60 Gelcaps Code: SP605 Dosage: 2 gelcaps tid - qid

phosphatidyl choline monograph product data sheet

Phosphatidyl Choline

an important cell membrane phospholipid

Phosphatidylcholine is a primary phospholipid in cell membranes. A source of choline and a major component of hepatic cell membranes, phosphatidylcholine has been shown in numerous studies to protect liver cells from damage from a variety of toxins, such as ethanol, many prescription drugs, carbon tetrachloride, trichloroethylene (used in dry cleaning and as a degreasing solvent), Amanita phalloides (deathcap mushroom), and others. Phosphatidylcholine provides significant amelioration of liver damage, probably because liver recovery following damage requires substantial replacement of cell membrane mass. The findings from eight double-blind trials and numerous other clinical reports indicate consistently significant clinical benefit, including improvement of enzymatic and other biochemical indicators, faster functional and structural rebuilding of liver tissue, and accelerated restoration of subjects' overall well-being. Hepatic conditions that can benefit from phosphatidylcholine supplementation include drug- or alcohol-induced liver damage, fatty liver, and hepatitis B and C.

In addition to cell membranes, phosphatidylcholine is an important component of circulating lipoproteins in the bloodstream. It is also a major constituent of bile, necessary for fat emulsification, absorption, and transport. Phosphatidylcholine has the potential to decrease absorption of dietary cholesterol and further regulate cholesterol by decreasing its synthesis and initiating its conversion to bile salts. This increases the excretion of lipids via the bile with resultant lowering of lipids in the bloodstream.

other products to see: Lipotrepein

The adrenal glands play a critical role in our ability to respond to stress. Stimulation of the adrenals causes a release of cortisol, epinephrine, norepinephrine, and other chemicals. These chemicals raise heart rate, increase blood pressure, heighten senses, constrict the blood vessels to the digestive tract, and raise blood sugar – all in an effort to rally quick energy to either meet an impending challenge head-on or escape a threatening situation.

These days, we are all too often bombarded with various forms of stress that can, if not properly managed, exhaust our adrenal glands. A diet high in refined carbohydrates, the demands of work, managing personal finances, and exposure to environmental pollution are just a few modern stress factors that can push the adrenal glands past the ability to adapt. Constant adrenal stimulation damages the body and produces stress-related symptoms and diseases.

Phytisone®

nutritional and botanical support for healthy adrenals

Chronic stress can exert a range of detrimental effects on bodily systems vital to long-term health, such as the immune, cardiovascular, and neuroendocrine systems. To effectively adapt to stress, it is critical to optimize function of the adrenal glands. Phytisone has been designed with this in mind. A unique combination of adaptogen botanicals and nutrients, Phytisone provides the nutritional support needed to optimize the adrenals' response to stress. Astragulus membranaceus is used, typically in combination with ginseng, to improve energy and optimize immune function. Licorice root (Glycyrrhiza glabra) appears to have a modulating effect on cortisol activity. Ginger (Zingiber officinale) has the capacity to increase the bioavailability of other substances. Perhaps the two best-known adaptogens are Panax ginseng and Eleutherococcus senticosus. An abundance of research has demonstrated an enhanced response to physical or chemical stress, as well as a beneficial physiological effect on the central nervous, cardiovascular, and endocrine systems following administration of *Panax* ginseng. Similarly, ample evidence supports the use of Eleutherococcus as a biological response modulator. Ashwagandha (Withania somnifera) has been called Indian ginseng, and is considered to be the preeminent adaptogen from the Ayurvedic medical system. Ascorbic acid, thiamine (B1), pantethine (the active form of B5), pyridoxal 5'-phosphate (the active form of B6), and zinc are included for their strengthening and supportive role in optimizing adrenal function.

other products to see: Cortrex, Dehydrone

adrenal support

Phytisone®

Two Capsules Contain:		% DV
Vitamin C (as Ascorbic Acid)	250 mg.	4179
Thiamine (as Thiamine HCI)	24 mg.	1600%
Vitamin B6 (as Pyridoxal 5'- Phosphate)	6.8 mg.	3409
Zinc (as Zinc Picolinate)	2 mg.	149
Pantethine	100 mg.	*
Licorice (root) (Glycrrhiza glabra)	25 mg.	*
Eleuthero extract (root) (Eleutherococcus	senticosus)	
(0.8% total Eleutherosides)	75 mg.	*
Oriental ginseng extract (root) (Panax gin	seng)	
(20% total Ginsenosides)	75 mg.	*
Ashwagandha extract (root)		
(Withania somnifera) (1.5% Withanolide	s)150 mg.	*
Astragalus (Huang-Qi) (root)		
(Astragalus membranaceus)	100 mg.	*
Ginger extract (root) (Zingiber officinalis)		
(5% Gingerols)	50 mg.	*

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SG804 Dosage: 1 to 2 capsules bid

> stress article (4-4) withania monograph product data sheet



immune support

Phytogen®

Supplement Facts Serving Size: Two CapsulesServings Per Container: 30		
Two Capsules Contain:		% DV
Echinacea angustifolia (root)	300 mg.	*
Goldenseal (4 to 1) extract (root)		
(Hydrastis canadensis)	75 mg.	*
Astragalus membranaceus (Huang-Qi) (root	t) 150 mg.	*
Ligusticum porteri (Osha) (rhizome)	150 mg.	*
Schizandrae chinensis (Wu-Wei-Zi) (fruit)	150 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide. †

60 Vegetarian Capsules Code: SF724 Dosage: 2 to 4 capsules tid - qid

> also available 180 Vegetarian Capsules Code: SF725

> > cold & flu article (12-1) astragalus monograph ligusticum monograph schizandra monograph product data sheet

Phytogen®

American and Chinese botanical combination promoting optimal immune function

Echinacea angustifolia is one of the most well-researched botanicals, promoting chemotaxis of white blood cells, bacteriolysis, neutralization of viruses, and destruction of immune complexes. Echinacea also enhances phagocytosis, activates NK cells, increases interferon levels, and inhibits hyaluronidase, protecting the integrity of mucosal surfaces and walling off the infection.

Berberine, a major alkaloid found in *Hydrastis canadensis* (goldenseal), has direct antimicrobial action against a variety of organisms and prevents bacterial adherence to erythrocytes and epithelial cells.

Astragalus membranaceus, an important Chinese botanical, has a long history of use as a tonic and immunomodulator, probably due to its ability to increase interferon production, leukocyte counts, and T-cell function Currently, much of the pharmacological research on Astragalus is focused on its immune-stimulating polysaccharides and other active ingredients useful in treating immune deficiency conditions. Astragalus has demonstrated a wide range of potential therapeutic applications in immunodeficiency syndromes, and as an adjunct cancer therapy.

Ligusticum wallichii is used in Chinese medicine for its notable immunopotentiating effect. Ligusticum has demonstrated in vitro effects against several strains of pathogenic bacteria including Pseudomonas aeruginosa, Shigella sonnei, Salmonella typhi, and Vibrio cholera.

Schizandra is recommended in the Chinese materia medica for coughs and various pulmonary diseases and has been studied extensively in China and Japan. It has direct antibacterial activity against several pathogens and some constituents have been reported to have an antitussive effect in animals.

[†]A hypoallergenic ingredient used to fill space.

Phytoprofen®

botanical anti-inflammatory extracts to minimize post-operative/post-injury inflammation and bruising without the side effects of NSAIDS, and now with well-absorbed Meriva® curcumin phytosome

Phytoprofen is a combination of anti-inflammatory botanicals, including a synergistic blend of Ayurvedic herbs – Picrorhiza, Boswellia, and curcumin (from turmeric), all of which exhibit potent anti-inflammatory action by inhibiting inflammatory prostaglandins and leukotrienes. To these botanicals is added bromelain – an anti-inflammatory, protein-digesting enzyme complex from pineapple that inhibits the production of prostaglandins and leukotrienes, as well as other chemicals involved in inflammation.

The botanical extracts in Phytoprofen can minimize post-operative/post-injury inflammation and bruising without the side effects of nonsteroidal anti-inflammatory drugs (NSAIDs). Clinical research has shown bromelain reduces swelling, bruising, and pain, and speeds healing from bruises and hematomas. Treatment with bromelain following blunt injuries to the musculoskeletal system results in a clear reduction in swelling, pain at rest and during movement, and tenderness. Administration of bromelain pre-surgically can reduce the average number of days for complete disappearance of pain and inflammation.

Phytoprofen provides anti-inflammatory effects while preserving cartilage, mucous membranes, and other tissues that are often damaged by over-the-counter and prescription medications. It is known that NSAIDs can cause a disruption of glycosaminoglycan synthesis that can accelerate articular damage in arthritic conditions. A recent in vivo study examined Boswellia extract and ketoprofen for their effects on glycosaminoglycan metabolism. Boswellia significantly reduced the degradation of glycosaminoglycans compared to controls, whereas ketoprofen caused a reduction in total tissue glycosaminoglycan content.

Animal, in vitro, and clinical studies have demonstrated curcumin's effectiveness for decreasing acute and chronic inflammation. A double-blind crossover, placebo-controlled study of 42 patients with osteoarthritis found a combination formula including curcumin and Boswellia significantly reduced pain and disability compared to placebo after three months.

Consider Phytoprofen for any inflammatory condition, including arthritis,

other products to see: Traumogen, M.F. Bromelain, Meriva, MediClear Plus



musculoskeletal support wound healing

Phytoprofen®

Supplement Fac Serving Size: One CapsuleServings Per Co		
Each Capsule Contains:		% DV
Bromelain (3200 m.c.u. minimum)	125 mg.	*
Picrorhiza kurroa extract (root) (4% Kut	tkin) 125 mg.	*
Boswellia serrata extract (gum)		
(60% Boswellic Acids)	125 mg.	*
Curcumin Phytosome (root) (Curcuma I	onga extract	
/ Phosphatidylcholine complex)	125mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule. Silicon Dioxide.†

Contains ingredient derived from soy (phytosome).

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF799 Dosage: 2 capsules bid - tid

NOTE: Bromelain is derived from the pineapple plant.

IBD article part I (8-3)
IBD article part II (9-4)
bromelain monograph
picrorhiza monograph
boswellia monograph
curcumin monograph
surgery brochure
product data sheet





lipid metabolism support cardiovascular support

Policosanol

Supplement Facts Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains:		% DV
Policosanol	5 mg.	*
*Naily Value (DV) not established		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF708 Dosage: 1 to 2 capsules bid

policosanol article (7-3)
policosanol monograph
product data sheet

Policosanol

the safe solution for enhancing cardiovascular health, lipid metabolism, and platelet function

Another natural alternative to lipid-lowering drugs, policosanol is well researched, with more than 40 studies to date representing supplementation to tens of thousands of people. These studies have reported substantial cardiovascular benefits of the specialized plant fats found in policosanol – a mixture of long-chain "fatty alcohols" with a demonstrated ability to positively impact cardiovascular biomarkers.

Policosanol appears to improve lipid metabolism by increasing hepatic binding, uptake, and degradation of LDL cholesterol. Supplementation also appears to positively modify the endogenous synthesis of lipids by influencing the activity of HMG-CoA reductase, the rate-limiting enzyme in lipid biosynthesis. The result is substantially increased metabolism of total cholesterol as well as improved ratios of LDL to HDL.

In humans, policosanol has also demonstrated a dose-dependent ability to promote improved resistance of LDL to oxidative stress.

Policosanol's ability to positively modify platelet function appears to be more specific than that of aspirin. While aspirin inhibits multiple aspects of prostaglandin metabolism, policosanol's activity appears to be specific to thromboxane B2, resulting in a dose-dependent improvement in platelet function and decrease in platelet aggregation without the detrimental effects that can occur when multiple aspects of prostaglandin metabolism are inhibited.

Supplementation with policosanol has resulted in improved cardiovascular function as determined by ECG testing, improved aerobic exercise capacity, and enhanced blood flow to peripheral tissues (as assessed by peripheral skin temperatures and arm/ankle pressures) in individuals with a variety of functional challenges to the cardiovascular system.

other products to see: Choleast, Niasafe-600, Pharmacol-40

Q10 Plus®

coenzyme Q10 with cardiac nutrients and botanicals

This combination of coenzyme Q10, hawthorne (*Crataegus oxycantha*), potassium, taurine, and magnesium provides the heart muscle with the nutrients needed for optimal functioning.

CoQ10 is a vital element for the heart. Myocardial cells are highly metabolic and thus need CoQ10 as a mitochondrial energy-producing cofactor. CoQ10 also serves as an intracellular antioxidant. Studies on CoQ10 in cardiovascular function show its benefit in patients with angina, arrhythmia, mitral valve prolapse, hypertension, and congestive heart failure. In 73 patients after an acute myocardial infarction treated with 120 mg/day, significant improvements were seen in angina, arrhythmia, and poor left ventricular function (all p<0.005 compared to placebo) after 28 days' treatment. Cardiac events and death were also significantly reduced in the CoQ10 group.

Taurine is an essential nutrient cofactor for cardiac function, and is the most abundant amino acid in the heart. Research indicates supplementation with taurine results in reduced serum cholesterol levels, probably due to taurine's contribution to the formation of bile acids. In addition, taurine aids in the regulation of intracellular calcium levels, which protects the heart muscle and helps regulate cardiac rhythmicity. Taurine may also have hypotensive activity.

Flavonoid compounds in hawthorne appear to strengthen blood vessels and stabilize heart rhythm, whereas, flavonoids in Ginkgo enhance blood flow. Hawthorne has been shown to improve cardiac function in individuals with congestive heart failure, with improvements in blood pressure, heart rate, dyspnea, and exercise capacity. The flavonoids in hawthorne and Ginkgo act as antioxidants and may improve vascular endothelial function, which can result in increased vascular dilation and blood flow.

Magnesium and potassium are necessary for proper cardiovascular function. This combination of nutrients and botanicals relaxes blood vessels, leading to optimization of blood pressure. Magnesium has demonstrated improvement in mitral valve prolapse symptoms, hyperlipidemia, and hypertension. Potassium supplementation has benefited individuals with hypertension. Potassium and magnesium supplementation may also be of benefit in congestive heart failure.

other products to see: Omega-3 w/CoQ10, Taurine, CoQ300 Softgels

cardiovascular support

Q10 Plus®

Three Capsules Contain:	•	% DV
Magnesium (as Magnesium Citrate)	200 mg.	50%
Potassium (as Potassium Citrate)	90 mg.	2.5%
Taurine	900 mg.	*
Coenzyme Q10	45 mg.	*
Ginkgo biloba extract (leaf)		
(24% Ginkgo Heterosides)	60 mg.	*
Hawthorne extract (top branch flowers)		
(Crataegus oxycantha)	300 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF713 Dosage: 1 to 2 capsules tid

hypertension article (6-6) crataegus monograph coenzyme Q10 monograph taurine monograph product data sheet





antioxidants
hepatic support
neurological support
neuroendocrine support
ocular support

R-Lipoic Acid

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV R-Lipoic Acid 100 mg. *

Other Ingredients: Magnesium Citrate, † Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide, †

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF771 Dosage: 1 to 2 capsules daily

> R-lipoic article (12-4) alpha lipoic monograph product data sheet

R-Lipoic Acid

the most active lipoic acid isomer

Alpha-lipoic acid (ALA) contains two possible isomers designated as R-lipoic acid (R-ALA) and S-lipoic acid (S-ALA). Naturally occurring ALA is in the R configuration, where it functions as an essential cofactor for several mitochondrial enzyme complexes involved in energy production. Nutritional supplements of ALA are typically comprised either of R-ALA alone or a racemic mixture of R-ALA and S-ALA.

Human studies using oral racemic mixtures of R- and S-ALA have observed plasma concentrations of R-ALA to be greater than that of S-ALA. One study found that, following oral administration of 50- or 600-mg racemic mixture of lipoic acid, maximum plasma concentrations of R-ALA were double that of S-ALA. Another study found tissue uptake of R-ALA was two- to seven-times higher than S-ALA.

A human study was conducted to assess the absorption and bioavailability of RLA bound to sodium (NaRLA), compared to both unbound RLA and a racemic mixture of R- and S-ALA. As anticipated from a previous study, NaRLA was shown to be more stable, more water soluble, and displayed significantly higher maximum concentrations (Cmax) and area under the curve (AUC) values – reflections of absorption – than unbound RLA or the racemic mixture. Thorne is proud to provide R-lipoic acid in its most bioavailable form bound to sodium.

other products to see: Thiocid, Fibrovive, Neurochondria, Anti-Oxidant, Extra Nutrients

- → a CNS adaptogen to help eliminate stress
- → enhances mood, sleep, and intellectual focus
- → can increase excercise performance
- → normalizes serotonin, norepinephrine, and dopamine levels



Rhodiola

a central nervous system adaptogen

Rhodiola rosea has been extensively studied in Russia and Scandinavian countries for over 35 years and is categorized as an adaptogen because of its ability to increase resistance to chemical, biological, and physical stressors. Rhodiola has been found to inhibit stress-induced depletion of catecholamines and facilitate the transport of neurotransmitters within the brain. The adaptogenic properties of Rhodiola have been attributed primarily to this ability to influence levels and activity of neurotransmitters and opioid peptides such as beta-endorphins. Because it is an adaptogen, Rhodiola has the potential to normalize neurotransmitters in the central nervous system without causing drowsiness or fatigue.

Russian studies suggest a role for Rhodiola in situations characterized by a decline in work performance, poor appetite, sleep disturbances, irritability, headaches, and fatigue. Clinical studies have found improved mental performance in physicians on night duty supplementing with Rhodiola. Medical students given Rhodiola during exam periods reported improved concentration and performance, as well as enhanced wellbeing, improved sleep, and greater mood stability.

In summary, Rhodiola modulates the physical and emotional responses to stress. In addition to aiding sleep, it can enhance mood and decrease anxiety, allowing for more efficient functioning under stressful conditions.

other products to see: Theanine, PharmaGABA-PRO, Deproloft, Sedaplus

stress management neuroendocrine support

Rhodiola

Supplement Facts

Serving Size: One CapsuleServings Per Container: 60

Each Capsule Contains: % DV

Rhodiola rosea extract (root) (3% Rosavins) 100 mg. *

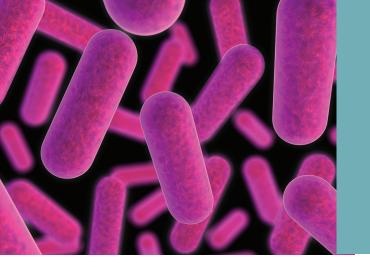
*Daily Value (DV) not established.

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF755 Dosage: 1 capsule bid - tid

rhodiola article (6-3) rhodiola monograph product data sheet



- → a key probiotic
- → studies show Saccharomyces boulardii effective in the treatment and prevention of gastrointestinal disorders
- → no special handling required

gastrointestinal support probiotics

Sacro-B[™]

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Saccharomyces boulardii 250 mg. *

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF757 Dosage: 2 capsules bid between

candida article (2-5)
permeability article (2-5)
saccharomyces boulardii monograph
product data sheet

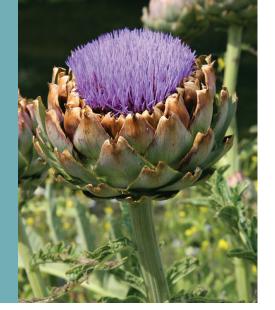
Sacro-B[™] beneficial yeast for the GI tract

Saccharomyces boulardii is a beneficial, non-pathogenic yeast species that can help prevent the overgrowth of pathogenic species, especially during antibiotic treatment. In clinical studies, Saccharomyces boulardii prevented antibiotic-associated diarrhea and increased production of secretory IgA, the first-line defense immunoglobin of the gastrointestinal tract.

This beneficial yeast may also be effective for HIV-associated diarrhea, Crohn's disease, and diarrhea of unknown origin. Oral administration of *Saccharomyces boulardii* has been shown in animal studies to inhibit the translocation of *Candida albicans* from the gastrointestinal tract. Administration reduced the incidence of Candida-postive lymph node cultures.

other products to see: Formula SF722, Undecyn, Perma-Clear, MediClear Plus

- → now with the unique benefits of Meriva® (curcumin phytosome and Siliphos® silybin phytosome)
- → studies show these three important botanicals have strong hepatoprotective properties
- → a top seller for over 20 years just got better



S.A.T.®

Silybin (bound to phosphatidylcholine – Siliphos®), artichoke, and turmeric (curcumin bound to phosphatidylcholine as Meriva®)

A well-researched, standardized botanical extract, milk thistle (as Siliphos) contains potent antioxidants that protect hepatocytes from free radical damage, stabilize cell membranes, and help maintain hepatic glutathione levels and SOD activity. In numerous studies, silymarin has been utilized to prevent hepatocellular damage by carbon tetrachloride, ethanol, acetaminophen, *Amanita phalloides*, and benzopyrene. Silymarin has also been shown to inhibit 5-lipoxygenase, which is responsible for the biosynthesis of pro-inflammatory leukotrienes. The phosphatidylcholine in Siliphos also helps protect hepatic cell membranes.

Cynara scolymus (artichoke) has a long history of use in hepatic support. Anti-platelet-aggregation activity has also been noted with oral supplementation of artichoke. Turmeric has been used traditionally in both Chinese and Ayurvedic medicine to support liver function and as an anti-inflammatory. The primary therapeutic agent is the yellow pigment curcumin. Curcumin's hepato-protective activity may be due to its strong antioxidant activity and inhibition of pro-inflammatory enzymes 5-lipoxygenase and cyclooxygenase. Binding curcumin to the hepatoprotective phospholipid phosphatidylcholine (as Meriva) not only enhances biovailability but increases its hepatoprotective effects.

other products to see: T.A.P.S., Lipotrepein, Siliphos, Meriva

hepatic support

S.A.T.®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Silybin Phytosome (seed) (Silymarin marianum extract / Phosphatidylcholine complex) 150 mg. * Artichoke extract (flower) (Cynara scolymus) 150 mg. * Curcumin Phytosome (root) (Curcuma longa extract / Phosphatidylcholine complex) 150 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†
Contains ingredients derived from soy (phytosomes).

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF732 Dosage: 1 to 3 capsules tid

liver disease article part I (3-6) liver disease article part II (4-3) silybum monograph curcuma monograph product data sheet

Thorne Research specialty formula products - page 176

The Mystery of Sleep

Anyone who has pulled an all-night study session, stayed up until the wee hours working on a project with a next-morning deadline, or driven long distances knows the longer you go without sleep, the worse your performance. As with the needs for food and water, humans need sleep. We spend about one-third of our lives in a state of relative unconsciousness, but nobody has figured out exactly why we need to sleep. Some sleep experts believe that while we sleep the brain is busy compiling what we learned during the day, creating new synapses. Other experts believe the brain spends its down-time recharging and relating to what we have learned during the day, making the new synapses created during the waking hours more efficient and lean. Either way, if it is difficult to get to sleep or stay asleep it can wreak havoc with our bodies and minds. So-called sleep debt is unhealthy, and can be dangerous; in fact, it is a risk factor for weight gain, hypertension, type 2 diabetes, cardiovascular disease, and injury or death from accidents.

Supplementation with botanicals like Valerian, Rhodiola, Passiflora, and others, relaxants like GABA, the judicious use of neurotransmitter precursors like L-tryptophan and 5-HTP, or the sleep-producing melatonin, can be very helpful in relieving acute insomnia or re-training the nervous system so that chronic insomnia resolves.

neuroendocrine support stress management sleep management

Sedaplus®

	% DV
200 mg.	*
25 mg.	*
50 mg.	*
50 mg.	*
50 mg.	*

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF770 Dosage: 2 to 4 capsules as needed

> valerian monograph rhodiola monograph chamomile monograph product data sheet

Sedaplus®

sedative herbs for restful sleep

The calming botanicals in Sedaplus relieve insomnia and promote restful, restorative sleep. Alone and in combination with hops (Humulus lupulus), valerian (Valeriana officinalis) significantly improves the ability to initiate sleep and enhances sleep quality. Valerian stimulates GABA release, which acts in combination with valerian's regulatory effect on the autonomic nervous system.

Hops and chamomile (Matricaria recutita) are indicated for insomnia and are also helpful for stress-related gastrointestinal upset. Chamomile reduced ACTH levels in stress studies, and other tests showing GABA-ergic properties have prompted speculation that its mechanism may be similar to benzodiazepines. A benzodiazepine-like calming effect is also attributed to passion flower (Passiflora incarnata), which is indicated for general nervous agitation, including insomnia due to an overactive mind.

The restorative sleep attributes of Sedaplus are further strengthened by the CNS adaptogen Rhodiola, which decreases physiological responses to stress, slowing down the over-active mind for a restful sleep.

> other products to see: Rhodiola, PharmaGABA-PRO, 5-Hydroxytryptophan, L-Tryptophan, Melaton

Serenoa Gelcaps

botanical 5-alpha reductase inhibitor

For clinicians who prefer a single botanical, this liposterolic extract of saw palmetto (Serenoa repens) contains only the standardized preparation. Several double-blind, placebo-controlled trials have confirmed that standardized extracts of saw palmetto improve urinary symptoms, urine flow rates, and quality of life without side effects or toxicity. In addition, studies suggest saw palmetto is approximately as effective as either finasteride or alpha-blockers – conventional treatments for BPH.

Testosterone is converted in prostatic cells to dihydrotestosterone (DHT), catalyzed by the enzyme steroid 5-alpha reductase (5-AR). DHT binds to androgen receptors in the nucleus of prostate cells, stimulating cellular growth and division. In BPH tissue, 5-AR levels are higher than in tissue not affected by BPH. Standardized liposterolic Serenoa extract has been found to be a potent inhibitor of 5-AR, resulting in decreased tissue DHT. Another component of BPH is inflammation within the prostate gland. A standardized Serenoa extract has been shown to inhibit 5-lipoxygenase and its downstream proinflammatory metabolites.

other products to see: Basic Pygeum Herbal, Perfusia-SR, Al's Formula

men's health prostate support

Serenoa Gelcaps

Supplement Facts Serving Size: One GelcapServings Per Container: 60 Each Gelcap Contains: % DV Saw Palmetto extract (berry) (Serenoa repens) 160 mg. (85% minimum Liposterols) *Daily Value (DV) not established Other Ingredients: Gelatin (from tilapia) and Glycerin (vegetable source) capsule. Olive oil, and water. Contains ingredient derived from fish (tilapia).

60 Gelcaps Code: SF762 Dosage: 1 to 2 gelcaps bid

> serenoa monograph product data sheet

BPH article (1-1)

Siliphos

a highly bioavailable silybin-phosphatidylcholine

Siliphos provides all the benefits of silymarin and phosphatidylcholine in one compound! Siliphos is a phytosome, which is a water soluble flavonoid (in this case silybin) that has been made lipid friendly by the addition of phosphatidylcholine. This allows for better incorporation of this hepatoprotective flavonoid into hepatic cell membranes. Of the three flavonoids comprising silymarin, silybin predominates and is the most potent. Clinical studies indicate the silybin-phosphatidylcholine complex in Siliphos provides superior bioavailability when compared to conventional silymarin products.

Phosphatidylcholine (PC) is not merely a passive "carrier" for the bioactive flavonoid silybin, but is itself a bioactive nutrient with documented clinical efficacy for liver disease, including alcoholic hepatic steatosis, druginduced liver damage, and hepatitis. Silybin protects the liver by conserving glutathione in the parenchymal cells, while PC helps repair and replace cell membranes. These constituents likely offer the synergistic benefit of sparing liver cells from destruction.

other products to see: S.A.T., T.A.P.S., Lipotrepein

antioxidants hepatic support detoxification support

Siliphos®

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Silybin Phytosome (seed) (Silymarin marianum extract / Phosphatidylcholine complex) 180 mg. *Daily Value (DV) not established. Other Ingredients: Cellulose,† Hypromellose (derived from

cellulose) capsule, Leucine,† Silicon Dioxide.† Contains ingredients derived from soy (phytosome).

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF733 Dosage: 1 to 3 capsules tid

Siliphos® (Silybin Phytosome) is a Registered Trademark of Indena.

> silibin-PC article (10-3) detox booklet silymarin monograph phosphatidylcholine monograph product data sheet

Thorne Research specialty formula products — page

detoxification allergy support

Solvent Remover

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Glycine 150 mg. * Glutamine 150 mg. * Taurine 150 mg. * N-Acetyl-L-Cysteine 50 mg. * Alpha Lipoic Acid 50 mg. *

Other Ingredients: Hypromellose (derived from cellulose) capsule. Leucine.† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

*Daily Value (DV) not established

90 Vegetarian Capsules Code: SF796 Dosage: 1 to 2 capsules tid

detox booklet environmental medicine article (5-2) alpha lipoic monograph I-glutamine monograph product data sheet

Solvent Remover

for individuals exposed to solvents

Chemical solvents can be detrimental to the nervous system. Solvent Remover contains amino acids needed to support the specific liver detoxification pathways involved in solvent elimination, as well as antioxidant nutrients to protect nerves from solvent damage. Individuals exposed to solvents who might benefit from this product include painters, dry cleaners, construction workers, printers, office workers, auto mechanics, manicurists, and beauticians. Other individuals who can benefit from Solvent Remover include those sensitive to paint, glue, and perfume, and persons with food intolerance, poor cholesterol metabolism, and/ or fat-soluble vitamin depletion (signs of deficiencies in the acylation phase-II pathway). The nutrients in this product enhance acylation (amino acid conjugation), glucuronidation, and sulfation pathways - all involved in solvent detoxification. Glycine is the main amino acid necessary for acylation; L-glutamine is also needed for proper acylation. Taurine is needed for both acylation and sulfation pathways. N-acetylcysteine increases the production of glutathione, an essential endogenous antioxidant for detoxification. Alpha-lipoic acid increases glutathione and is neuroprotective.

other products to see: Basic Detox Nutrients, Pesticide Protector, Toxic Relief Booster, Formaldehyde Relief, Liver Cleanse, Medibulk

oncology support

Supportive Care[™]

Supplement Facts Serving Size: Fourteen CapsulesServings Per Container: 15 % DV Fourteen Capsules Contain: Indole-3-Carbinol complex 600 mg. Green Tea Phytosome (leaf) (Camellia sinensis extract 1500 mg. / Phosphatidylcholine complex) Quercetin 1000 mg **Quercetin Chalcone** 500 mg. L-Carnitine 1000 mg. 2200 mg. Calcium Ascorbate *Daily Value (DV) not established

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.† Contains ingredient derived from soy (phytosome).

†A hypoallergenic ingredient used to fill space.

210 Vegetarian Capsules Code: SFSC Dosage: 7 capsules qd - bid

> cancer article part 1 (6-1) cancer article part 2 (6-2) product data sheet cancer booklet

Supportive Care®

focused antioxidant support for oncology patients, now with highly bioavailable Greenselect® Green Tea Phytosome

Supportive Care is a combination of botanical and nutrient agents provided in amounts that scientific studies have found helpful in prevention of cancer, prevention of recurrence, and in slowing growth of existing cancer. Indole-3-carbinol aids in the detoxification of estrogens implicated in certain types of cancer. Green tea polyphenols are potent antioxidants and have been found to induce cell cycle arrest and apoptosis. Antioxidant flavonoids quercetin and quercetin chalcone exhibit antiproliferative effects and tumor inhibition, respectively. Ascorbic acid has shown cytotoxic activity against abnormal cells. L-carnitine has been found to decrease the toxicity of certain chemotherapeutics, including cisplatin-induced mitochondrial dysfunction and doxorubicin-induced cardiotoxicity.

other products to see: Supportive Care II

In the United States, an estimated 25.9 million men (23.9 percent) and 20.7 million women (18.1 percent) are smokers. Cigarette smoking is the most important preventable cause of premature death in the United States. It accounts for nearly 440,000 of the more than 2.4 million annual deaths. Cigarette smokers have a higher risk of developing several chronic disorders. These include heart disease, several types of cancer and chronic obstructive pulmonary disease. Atherosclerosis is a chief contributor to the high number of deaths from smoking.

adapted from the AHA Scientific Position www.americanheart.org

- → studies show Sulfonil reduces the desire to smoke
- → patented thioglycerol compounds preferentially bind to nicotine receptor sites to reduce nicotine cravings
- → Sulfonil is a natural alternative to Chantix®



a natural, patented product to decrease nicotine cravings

The patented thioglycerol compounds in Sulfonil have been shown to preferentially bind to nicotine cell surface receptor sites, thereby preventing nicotine from attaching, and subsequently minimizing the desire to smoke.

Nicotine and other constituents of tobacco smoke stimulate adrenergic receptors in the brain. Research indicates that bivalent negative sulfur compounds, which bind with adrenergic receptors more readily than nicotine, inhibit the receptor's ability to bind with nicotine and therefore mediate the resultant desire to smoke.

A small, two-week study of 24 individuals demonstrated that this thioglycerol compound significantly reduced both the craving for cigarettes and the number of cigarettes smoked per day. Thus, Sulfonil is an important component of smoking cessation protocols.

other products to see: PharmaGABA-PRO, Rhodiola, Deproloft, Basic Detox Nutrients



respiratory support

Sulfonil®

Supplement Facts Serving Size: One CapsuleServings Per Container: 60 Each Capsule Contains: % DV Reacted Sulfur'' (Thioglycerol) 60 mg. *

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF783 Dosage: 2 capsules upon wakening, 1 capsule every 4 to 6 hours, 2 capsules at bedtime

**This product is protected under U.S. Patent No. 4,596,706.

product data sheet

Ailments of the respiratory tract are pervasive in children and adults. The sharp increase in asthma over the last 20 years has been accompanied by significant increases in inhalant allergies, rhinitis, and sinusitis. Cigarette smoking contributes to increased risk for a variety of respiratory tract conditions. Thorne Research provides well-researched formulations for support of people with allergies, asthma, hay fever, nicotine addiction, and other conditions of the respiratory tract.

Facilitate airflow & comfortable breathing
Mitigate inhalant allergies
Inhibit inflammation
Antihistamine activity
Minimize the desire to smoke

respiratory support allergy support

T. Asthmatica Plus®

Supplement Facts Serving Size: One CapsuleServings Per Container: 120		
Each Capsule Contains:		% DV
Tylophora asthmatica extract (leaves)	15 mg.	*
Boswellia serrata extract (gum)		
(60% Boswellic acids)	150 mg.	*
Picrorhiza kurroa extract (root) (4% kutkin	ı) 75 mg.	*
Piper longa extract (fruit)	50 mg.	*
Quercetin Chalcone	100 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

120 Vegetarian Capsules Code: SF766 Dosage: 1 to 2 capsules bid - tid

> asthma article (6-1) boswellin monograph picrorhiza monograph quercetin monograph product data sheet

T. Asthmatica Plus®

a botanical formula for the relief of asthma

Millions of Americans contend with diminished lung function from respiratory conditions, including asthma, allergies, and bronchitis. The botanicals in T. Asthmatica Plus provide antihistamine effects, bronchodilation, and anti-inflammatory activities that provide support for respiratory tissues.

Tylophora asthmatica is an Ayurvedic botanical traditionally used to support pulmonary function. Known as "Indian ipecac," Tylophora has an irritant effect on the gastrointestinal tract at high doses; at lower doses, however, it possesses spasmolytic and smooth muscle relaxant properties. Tylophora extracts inhibit mast cell degranulation, anaphylaxis, and inflammation in animal studies. Human studies demonstrate significant improvement in lung function indices.

Other Ayurvedic botanicals have been used traditionally to promote proper lung function and have been studied for their anti-inflammatory activity. *Boswellia serrata* (also known as frankincense) exhibits specific 5-lipoxygenase inhibition, and has been noted to significantly decrease leukotriene B4 formation – a potent bronchoconstrictor and inflammatory mediator. Extracts and isolates from *Picrorhiza kurroa* inhibit histamine release and bronchoconstriction, while *Piper longa* is used as an adjuvant botanical to increase absorption and utilization of the other elements in the formula.

other products to see: Petadolex, Cysteplus, Quercetone, QC Nasal Spray



- added benefits and absorption from unique phytosomes
- → Meriva® Curcumin Phytosome
- → Siliphos® Silymarin Phytosome

T.A.P.S.™

the important hepatoprotective herbs of silybin from milk thistle (complexed with phosphatidylcholine as Siliphos®), turmeric (curcumin complexed with phosphatidylcholine as Meriva®), and artichoke – plus Picrorhiza

Silybum marianum (milk thistle) has been used for centuries as an herbal medicine for the treatment of liver disease. Silymarin's hepatoprotective effects are accomplished via several mechanisms including antioxidation, inhibition of lipid peroxidation, enhanced liver detoxification via inhibition of Phase I detoxification and enhanced glucuronidation, and protection of glutathione depletion. Siliphos consists of the most potent flavonoid in silymarin (silybin) bound to phosphatidylcholine for enhanced hepatoprotection and bioavailability.

Curcuma longa, a perennial herb, is the source of the spice turmeric. Current research has focused on the constituent curcumin's antioxidant, hepatoprotective, anti-inflammatory, anticarcinogenic, and antimicrobial properties, in addition to its use in cardiovascular disease and gastrointestinal disorders. Curcumin is bound to phosphatidylcholine in the highly bioavailable phytosome complex – Meriva.

Picrorhiza is used in Ayurvedic medicine to optimize liver function and as an anti-inflammatory. In studies, Picrorhiza extracts and their constituents protected liver cells from damage caused by carbon tetrachloride, aflatoxin B1, and acetaminophen. Picrorhiza acts as an antioxidant and inhibitor of lipid peroxidation in cell membranes, and increases bile flow.

The hepatoprotective effects of Picrorhiza may be due to its antioxidant activity – inhibition of oxygen anion generation and free radical scavenging. Like silymarin, Picrorhiza can stimulate liver regeneration, possibly via stimulation of nucleic acid and protein synthesis. Picrorhiza also benefits individuals with acute hepatitis. In a double-blind study, it reduced bilirubin and the liver enzymes ALT and AST significantly compared to placebo.

other products to see: S.A.T., Lipotrepein, Siliphos, Meriva

hepatic support

T.A.P.S.™

Each Capsule Contains:		% DV
Silybin Phytosome (seed) (Silymarin mar.	ianum	
extract /Phosphatidylcholine complex) 150 mg.	*
Artichoke extract (flower) (Cynara scolymu	s) 150 mg.	*
Curcumin Phytosome (root) (Curcuma loi	nga extract	
/ Phosphatidylcholine complex)	150 mg.	*
Picrorhiza kurroa extract (root) (4% Kutkin) 150 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

Contains ingredients derived from soy (phytosomes).

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF773 Dosage: 1 to 3 capsules tid

liver disease article part 1 (3-6) liver disease article part 2 (4-3) picrorhiza monograph curcuma monograph silymarin monograph product data sheet



detoxification

Toxic Relief Booster

Each Capsule Contains:		% DV
Magnesium (as Magnesium Citrate)	50 mg.	8%
Selenium (as Selenium Picolinate)	30 mcg.	43%
Curcumin Phytosome (root) (Curcuma long	ga extract	
/ Phosphatidylcholine complex)	100 mg.	*
Silybin Phytosome (seed) (Silymarin maria	num	
extract / Phosphatidylcholine complex)	100 mg.	*
Grape Seed Phytosome (Vitis vinifera extra	ict	
/ Phosphatidylcholine complex)	50 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine, † Silicon Dioxide. †

Contains ingredients derived from soy (phytosomes).

†A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SF782 Dosage: 1 capsule tid

Siliphos® is a Registered Trademark of Indena S.p.A.

environmental medicine article (5-1) detox booklet silybum monograph turmeric monograph OPC monograph product data sheet

Toxic Relief Booster

for additional support during detoxification – now with three highly bioavailable flavonoid phytomes

In addition to Siliphos®, Meriva® (curcumin/phosphatidylcholine complex) and Greenselect® (green tea polyphenol/phosphatidylcholine complex) have been added to Toxic Relief Booster

Toxic Relief Booster provides nutrients and botanicals necessary for general detoxification support. It is designed for anyone undergoing a cleansing program. In addition, individuals on a weight-loss regime, undergoing sauna therapy, or engaging in strenuous exercise can benefit from Toxic Relief Booster. This formula aids in metabolizing toxins previously stored in fat and that have been released into the bloodstream due to these activities. This product can be used alone or in conjunction with other components of the detoxification protocol.

Magnesium is essential for hepatic phase-I detoxification and is one of the most commonly deficient nutrients in the chemically toxic individual. Selenium is essential for glutathione activity and detoxification of many substances. Milk thistle has proven its ability to increase liver glutathione levels and prevent liver cell damage from toxins. Siliphos® is the most potent flavonoid from milk thistle (silybin) bound to phosphatidylcholine for superior delivery to the liver. Curcumin bound to phosphatidylcholine (as Meriva®) is an important hepatoprotective antioxidant and has been shown to suppress the mutagenicity of several common chemical carcinogens. OPCs from grape seed bound to phosphatidylcholine (as Leucoselect® Phytosome) provide additional potent antioxidant effects.

lipoic acid: an important antioxidant in both fat- and water-soluble tissues

Alpha-lipoic acid (ALA) exerts its potent antioxidant effects in both its oxidized and reduced forms. It helps recycle other antioxidants, including glutathione – an essential antioxidant for liver detoxification. Alpha-lipoic acid has historically provided benefit after toxic insults to the liver. For example, lipoic acid infusions were used in the treatment of amanita mushroom poisoning in 75 patients between 1974 and 1978. Normally, up to 50 percent of patients recover without intervention; however, 89 percent (67 of 75) recovered after lipoic acid infusion. ALA appears to improve tissue redox status in metal toxicity and during chelation with dithiol compounds, including dimercaptosuccinic acid (DMSA). In addition to its antioxidant effects, alpha-lipoic acid (ALA) appears capable of chelating certain metals. In animal studies, it has been found to protect against arsenic poisoning and cadmiuminduced hepatotoxicity. *In vitro*, ALA chelated mercury from renal slices.

While *in vitro* and animal studies indicate superior bioavailability of pure R-lipoic acid, many clinical studies have used the racemic mixture. Thorne offers customers a choice by providing two dosage options of alpha-lipoic acid, containing the racemic mixture of R and S. Thiocid provides 100 mg alpha-lipoic acid per capsule, providing an effective dose for prevention or pediatric use (see Thiocid-300 for alternative dosage choice).

Thiocid-300®

alpha-lipoic acid for high-dose supplementation

Due to its potent antioxidant effects in both fat- and water-soluble environments, alpha-lipoic acid (ALA) has been studied extensively and applied clinically for protection of neurological function, particularly in the case of diabetic neuropathy. Mechanisms that may account for lipoic acid's benefit in preventing diabetic complications include prevention of protein glycosylation and inhibition of the enzyme aldose reductase, the latter of which subsequently inhibits conversion of glucose and galactose to sorbitol. Accumulation of sorbitol has been implicated in the pathogenesis of various diabetic complications, including "sugar cataracts" where sorbitol accumulates in the lens. ALA has been shown to provide benefit for a number of conditions, including diabetic complications (neuropathy, nephropathy, cataracts), glaucoma, amanita mushroom poisoning, alcoholic liver disease, and cognitive function.

Studies indicate high doses (600-1800 mg) may be most effective in some situations, such as for peripheral neuropathy. Thiocid-300 provides 300 mg alpha-lipoic acid per capsule for ease of dosing, particularly in situations where these high doses are desired.

other products to see: R-Lipoic Acid

antioxidants hepatic support neurological support

Thiocid®

Supplement Fa Serving Size: One CapsuleServings Per C		
Each Capsule Contains:		% DV
Alpha-Lipoic Acid (Thioctic Acid)	100 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF786 Dosage: 1 to 2 capsules tid

product data sheet

ocular support

Thiocid-300

Supplement Fa		
Each Capsule Contains:		% DV
Alpha-Lipoic Acid (Thioctic Acid)	300 mg.	*
*Daily Value (DV) not established.		

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

†A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF797 Dosage: 1 to 3 capsules bid

lipoic acid article (2-3)
HIV and ALA article (5-4)
neuropathy article (11-4)
alpha lipoic acid monograph
product data sheet



neuroendocrine support thyroid support

Thyrocsin[™]

Two Capsules Contain:		% DV
Vitamin C (as Ascorbic Acid)	200 mg.	334%
Vitamin E (as d-Alpha-Tocopheryl)	100 IU.	334%
Vitamin B12 (as Methylcobalamin)	100 mcg.	1666%
lodine (as Potassium Iodide)	225 mcg.	150%
Zinc (as Zinc Picolinate)	5 mg.	33%
Selenium (as Selenium Picolinate)	100 mcg.	143%
Copper (as Copper Picolinate)	500 mcg.	25%
Tyrosine (as L-Tyrosine)	500 mg.	*
Ashwagandha extract (root) (Withania	somnifera)	
(1.5% Withanolides)	150 mg.	*

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

60 Vegetarian Capsules Code: SF765 Dosage: 2 capsules bid

> iodine article (13-2) thyroid article (5-4) tyrosine monograph withania monograph product data sheet

Thyrocsin™

for nutritional support of thyroid function

Thyrocsin provides supportive nutrients for a healthy thyroid gland. Not only does it address low thyroid function, but it also provides nutrients necessary for peripheral conversion of T4 to T3.

lodine provides substrate for formation of T4, while L-tyrosine provides substrate for T4 and T3 formation. Animal studies indicate the Ayurvedic botanical ashwagandha can increase T4 concentrations.

Several nutrients are necessary for peripheral conversion. The minerals selenium, zinc, and copper are cofactors for the enzyme iodothyronine iodinase that is necessary for conversion of T4 to T3. A vitamin B12 deficiency also appears to interfere with activity of thyroid hormones in peripheral tissues. Peripheral conversion of T4 to T3 can be inhibited by heavy metal toxicity and lipid peroxidation; the antioxidant vitamins C and E can prevent this inhibition.

other products to see: Iodine & Tyrosine, L-Tyrosine

Thyroid hormone is involved with metabolism throughout the body. Thus, a deficiency or excess can have farreaching effects. High or low thyroid hormone levels can present with or without goiter. Euthyroid (normal thyroid) goiters may also occur.

High cortisol levels can also interfere with thyroid function, resulting in low T4 or poor conversion of T4 to T3. Nutrients that normalize cortisol levels may be of benefit for this patient population. These include phosphatidylserine (Iso-Phos), acetyl-L-carnitine (Carnityl), and plant sterols and sterolins (Moducare).

[†]A hypoallergenic ingredient used to fill space.

- → for pre- and post-surgery/wound healing
- → accelerate healing
- → reduce inflammation
- ightarrow decrease bruising



Traumogen®

comprehensive nutritional support for wound healing

The nutrients and botanicals in Traumogen promote tissue regeneration and support rapid wound healing. The amino acid glutamine is of vital importance to rapidly reproducing cells and tissues. Glutamine is used by white blood cells within the wound for reproduction, growth, and as a source of energy. Because optimal functioning of these cells is paramount to the healing process, glutamine is a necessary component of tissue repair. Glucosamine sulfate is included in Traumogen because of its ability to promote wound healing via increasing the body's production of hyaluronic acid, an important biochemical component of the extracellular matrix – the "glue" that holds tissues together.

Vitamin C is essential for wound healing because it is a cofactor for the synthesis of collagen, proteoglycans, and other organic components of the extracellular matrix. Vitamin C also provides important antioxidant activity and has been shown to improve immune function in humans. The combined effects of vitamin C on collagen synthesis, antioxidant status, and immune function make it an important nutrient for surgery patients and wound repair. Other nutrients important for proper tissue regeneration and repair include vitamin B6 and the minerals zinc, copper, and manganese. The botanical Gambir enhances both the production and strength of collagen, promoting tissue repair.

other products to see: Phytoprofen, Vitamin A, Hydrolyzed Whey Protein

musculoskeletal support wound healing

Traumogen®

Each Capsule Contains:		% DV
Vitamin C (as Ascorbic Acid)	200 mg.	3339
Vitamin B6 (as Pyridoxal 5'- Phosphate)	3.4 mg.	1709
Zinc (as Zinc Picolinate)	5 mg.	339
Copper (as Copper Picolinate)	0.25 mg.	12.59
Manganese (as Manganese Picolinate)	3 mg.	1509
L-Glutamine	200 mg.	*
Glucosamine Sulfate	100 mg.	*
Gambir (leaves) (Uncaria gambir)	120 mg.	*

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.† Contains ingredient derived from shellfish (crab and/or shrimp). †A hypoallergenic ingredient used to fill space.

180 Vegetarian Capsules Code: SF723 Dosage: 3 capsules qid

wound healing article (8-4) zinc monograph glucosamine monograph product data sheet surgery brochure

When your patients experience physical trauma – whether from accidental injury or a planned surgical procedure – you want them to heal as quickly as possible with the least amount of swelling, bruising, and scarring. Healing requires an intricate interplay of blood cells, growth factors, and biochemical mediators. Nutritional support can help promote tissue repair, reduce inflammation, and prevent specific nutritional deficiencies that can delay healing.



- → Thorne's innovative approach to Candida
- → 20 times more effective than caprylic acid
- → effective in preventing fungal overgrowth
- → acts systemically
- → can inhibit or even prevent thrush

gastrointestinal support

Undecyn®

Supplement Facts Serving Size: One CapsuleServings Per Container: 100

Each Capsule** Contains:		% DV
Calcium		
(from 150 mg Calcium Undecylenate)	15 mg.	1.5%
Grapefruit Seed extract	37.5 mg.	*
Bentonite Clay	150 mg.	*
Betaine HCI	150 mg.	*
*Daily Value (DV) not established		

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,[†] Silicon Dioxide.

100 Vegetarian Capsules Code: SF742 Dosage: 2 to 3 capsules tid

**In a gradual release cellulose coating.

candida article (2-5) undecylenic acid monograph product data sheet

WARNING: Undecylenic acid should not be opened and mixed with food or drink as the taste and odor is objectionable and it may also be irritating to mucous membranes.

Undecyn®

comprehensive antifungal support formula

Calcium undecylenate (the calcium salt of undecylenic acid) has been shown to have four times the antifungal effect of undecylenic acid and, milligram per milligram, is over 20 times more effective than caprylic acid. Fatty acid salts, however, are more sensitive to pH than free fatty acids, and a pH above 6.0 renders the calcium salt less potent than the free acid. Therefore, calcium undecylenate needs to be delivered to the intestinal tract at an acid pH, without causing unnecessary bicarbonate release or damage to the sensitive intestinal mucosa. Betaine HCl, in a time-release form in Undecyn, is gradually liberated in small quantities throughout the intestinal tract, simultaneously releasing the fatty acid salt.

Undecylenic acid has been shown to be effective in preventing fungal overgrowth associated with vaginal and gastrointestinal candidiasis via its fungicidal activity. Since undecylenic acid acts systemically, oral administration can inhibit or even prevent oral candidiasis, or thrush.

Undecyn combines the antifungal qualities of undecylenic acid with grapefruit seed extract (a proven antimicrobial agent), betaine HCl, and the endotoxin-binding activity of bentonite clay.

other products to see: Formula SF722, Lactobacillus Sporogenes, Citricidin

[†]A hypoallergenic ingredient used to fill space.



Uristatin®

for maintaining a healthy urinary tract

Urinary tract infections (UTIs) and atrophic vaginitis are common occurrences in women during and after menopause. This is because normal, healthy mucus membranes in the vagina and urinary tract help prevent infections. However, in postmenopausal women, the mucus membranes in the vaginal and urinary tracts become thin and dry, making it more difficult to ward off infections. In addition to drinking plenty of water and unsweetened cranberry juice, certain herbs may help prevent UTIs.

Uristatin consists of several herbs designed to maintain normal urinary tract flora. A study on the effect of uva ursi for preventing UTIs in women found at the end of one year that 5 of 27 in the placebo group and 0 of 30 women who took uva ursi had experienced an infection. Echinacea and goldenseal are added to Uristatin for their additional antimicrobial effects and Buchu has a particular affinity for the urinary tract where it helps soothe inflamed tissues.

Uristatin can be taken at a dose of 1-2 capsules daily for prevention. Dosage during an acute episode is 2-4 capsules three times daily.

other products to see: Potassium Citrate

urinary tract support

Uristatin®

Two Capsules Contain:		% DV
Bearberry (5 to 1) extract (leaf)		
(Arctostaphylos uva-ursi)	200 mg.	*
Short Buchu (4 to 1) extract (leaf)		
(Barosma betulina)	200 mg.	*
Goldenseal (4 to 1) extract (root)		
(Hydrastis canadensis)	200 mg.	*
Echinacea angustifolia (root)	200 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Cellulose,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

60 Vegetarian Capsules Code: SF726 Dosage: 2 - 4 capsules tid

berberine monograph product data sheet

A good strategy for prevention of urinary tract infections is to drink unsweetened cranberry juice or take cranberry extract in capsule form daily. Cranberry acidifies the urine and helps prevent the embedding of bacteria into the walls of the bladder.

Should an infection occur, however, Uristatin should be used. Since both uva ursi and goldenseal (ingredients in Uristatin) work best in alkaline urine, cranberry juice should be discontinued during treatment with Uristatin. Alkalinizing the urine with potassium citrate can help alleviate dysuria. Don't forget to have your patient drink plenty of water!



peripheral vascular support women's health

Venocap®

Each Capsule Contains:		% DV
Gotu kola extract (herb) (Centella asiatica)	
(10% asiaticoside)	100 mg.	*
Horsechestnut extract (seed)		
(Aesculus hippocastranum) (20% aescin)	100 mg.	*
Diosmin	100 mg.	*
Witch-hazel (leaf) (Hamamelis virginiana)	30 mg.	*
Grape Seed Phytosome (Vitis vinifera extra	ct	
/ Phosphatidylcholine complex)	30 mg.	*
Butcher's broom extract (root & rhizome)		
(9% ruscogenin) (Ruscus aculeatus)	25 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†
Contains ingredient derived from soy (phytosome).

[†]A hypoallergenic ingredient used to fill space.

120 Vegetarian Capsules Code: SF759 Dosage: 2 capsules bid

varicose vein article (6-2)
diosmin monograph
butcher's broom monograph
OPC monograph
gotu kola monograph
product data sheet

Venocap®

a synergistic blend of herbs to strengthen veins – now with highly bioavailable Grape Seed Phytosome (OPCs bound to phosphatidylcholine)

The botanicals and flavonoids in Venocap have astringent and collagenstrengthening actions that improve venous integrity. The herbs gotu kola, horse chestnut, witch hazel, and butcher's broom all have important astringent properties. The flavonoids diosmin and OPC stabilize collagen and provide anti-inflammatory activity.

Centella asiatica (gotu kola) contains important triterpenes (particularly asiaticosides) that have been found to improve the integrity of the perivascular sheath surrounding the vein. In addition, this botanical extract can reduce sclerosis and improve blood flow. Aesculus hippocastanum (horse chestnut) has important constituents for improving venous functioning. Studies have found that decreases in lower leg volume with extracts standardized for aescin content were comparable to those achieved with support stockings. *Hamamelis virginiana* (witch hazel) has a long history of folk use for improving venous integrity due to its important astringent qualities, resulting in vasoconstriction. Oligomeric proanthocyanidins (OPCs) stabilize collagen and ground substance, and have a particular affinity for the supportive structures of blood vessels. The active ingredients, ruscogenins, in *Ruscus aculeatus* (butcher's broom) have been found to enhance venous integrity by their anti-inflammatory and astringent properties. Diosmin, a flavonoid derived from hesperidin, can enhance venous tone by protecting the vessel wall matrix from degradation. This flavonoid has demonstrated important antioxidant and anti-inflammatory properties.

Venocap is an effective combination of flavonoids and botanicals shown to increase venous tone, decrease inflammation, and alleviate symptoms of varicose veins and hemorrhoids. Venocap is not recommended during pregnancy. For varicosities during pregnancy see Diosmin-HMC.

other products to see: Diosmin-HMC, O.P.C.-100, Vitamin C with Flavonoids

- → used in clinical practice for more than two decades
- → experiments with vinpocetine indicate that it can dilate blood vessels, enhance circulation in the brain, improve oxygen utilization, make red blood cells more pliable, and inhibit aggregation of platelets
- → vinpocetine easily crosses the blood-brain barrier



Vinpocetine

a botanical extract that increases circulation to the brain

An alkaloid from *Vinca minor* (lesser periwinkle), vinpocetine has been used clinically in Europe and Asia for over 20 years. Vinpocetine selectively enhances cerebral circulation and oxygen utilization and protects neurons by increasing the brain's ability to function in situations of low oxygen tension. These mechanisms of action enhance cognitive function. This alkaloid also inhibits phosphodiesterase and platelet aggregation and supports red blood cell fluidity.

Recent studies have shown that vinpocetine crosses the blood-brain barrier and is taken up by cerebral tissue. PET studies have also clearly shown in human subjects vinpocetine is preferentially absorbed in the central nervous system at twice the level that would be expected according to total body distribution. The highest uptake of vinpocetine was seen in the thalamus, putamen, and neocortical regions.

A study in 15 chronic ischemic stroke patients found that a two-week vinpocetine trial significantly increased cerebral blood flow in the nonsymptomatic hemisphere. Recent studies using Doppler sonography and near infrared spectroscopy have shown increased perfusion of the middle cerebral artery in patients with chronic cerebrovascular disease given a single infusion of vinpocetine.

A meta-analysis of six randomized, controlled trials involving 731 patients with degenerative senile cerebral dysfunction showed that vinpocetine was highly effective in the treatment of senile cerebral dysfunction – improving both cognitive and motor functions.

Vinpocetine has also shown benefit for tinnitus following acoustic trauma (needs to be started soon after the trauma), Meniere's disease, and visual impairment from atherosclerosis.

other products to see: GB24, Memoractiv, Iso-Phos

cognitive support cerebrovascular support

Vinpocetine

Supplement Facts Serving Size: One CapsuleServings Per Container: 90 Each Capsule Contains: % DV Vinpocetine *Daily Value (DV) not established.

Other Ingredients: Magnesium Citrate,† Hypromellose (derived from cellulose) capsule, Leucine,† Silicon Dioxide.†

[†]A hypoallergenic ingredient used to fill space.

90 Vegetarian Capsules Code: SB360 Dosage: 1 capsule tid

cognitive article (4-3) vinpocetine monograph product data sheet

