



**THORNE**<sup>®</sup>  
R E S E A R C H



**BioDERM**<sup>™</sup>

Natural relief from scaly, itchy skin

**Patented composition of bioactive peptides isolated from whey protein**

**Works well in combination with topical treatments and phototherapy and can be taken for an extended period of time**

**Helps balance immune function, acting not just on the visible skin surface, but also systemically**

**All-natural, with no side effects**

**Clinically proven to be safe and effective**

Conditions associated with chronic scaly, itchy skin are a common dermatological problem affecting millions of people worldwide. In the United States alone, an estimated 7.5 million people deal with scaly, itchy skin as part of their daily life. The majority of these cases are considered mild to moderate, affecting up to 10 percent of the body surface area.

Most individuals resort to suppressive treatments, such as topical agents, prescription medication, and/or phototherapy, which provide temporary relief of symptoms. The problem with these therapies is that they are often messy, time-consuming, and quite costly – not just in dollars and cents, but also in terms of overall health, as some of these treatments are associated with significant adverse side effects.

### **A Natural Solution**

Fortunately, there is a natural way to address the problem of scaly, itchy skin that is safe, effective, and easy to use. Thorne Research is proud to announce **BioDERM**, a natural, nutrition-based approach to managing mild-to-moderate scaly, itchy skin that is clinically proven to be effective, convenient to use, and compatible with other therapies... all without any adverse side effects!

**BioDERM**, isolated from whey protein, is a rich blend of growth factors and other bioactive proteins including lactoferrin and immune globulins. **BioDERM** balances immune activity and supports healthy epithelial cell proliferation. *A patented extraction process isolates the key nutrients in **BioDERM**.*

## The Science Behind BioDERM

Formation of scaly, itchy skin is thought to result from an overactive immune system. Experts believe over-stimulation of T-helper 1 (Th1) cells in the body leads to the release of cytokines that initiate an inflammatory cascade, causing excessive proliferation of keratinocytes (skin cells), and resulting in the formation of silvery scales overlying red, sometimes itchy, plaques or patches that can present anywhere on the body. By curbing the over-activity of Th1 cells, one can reduce the occurrence of scaly, itchy skin.

Transforming growth factor- $\beta_2$  (TGF- $\beta_2$ ), a natural growth factor found in whey protein, plays an essential role in the modulation of Th1 activity. In fact, research has shown that when TGF- $\beta_2$  is removed from the system, certain autoimmune conditions can soon develop. High concentration of TGF- $\beta_2$  is thought to be the key component for inhibiting Th1 cytokine activity.

The bioactive peptides found in whey protein, such as lactoferrin and immunoglobulins, play an essential role in supplying the nutritional components for healthy immune-system modulation by supporting proper T-cell homeostasis.

## Clinically Proven

One double-blind, placebo-controlled trial conducted by renowned dermatologists, Robert Bissonette, MD, and Yves Poulin, MD, observed the beneficial effects of **BioDERM** on 84 patients suffering from mild-to-moderate scaly skin over a period of 112 days. Using various assessment indices as a means of quantifying changes in subjects' condition, it was observed that study participants receiving BioDERM experienced statistically significant reduction of scaling, redness, and itching within the first 56 days of treatment compared to placebo. Approximately one-fifth of patients (21.6%) reported at least 25-percent improvement in their skin after 56 days on BioDERM. After 112 days, almost 30 percent of patients taking BioDERM reported improvements of nearly 60 percent compared to baseline.

An open-label study conducted by Dr. Poulin observed 11 individuals with chronic scaly, itchy skin who were administered **BioDERM** for a period of eight weeks. After four weeks, 64 percent (6 of 11 individuals) were already showing improvement in their condition. At the end of the study, 7 of the 11 participants reported as much as 81-percent improvement.

DAY 1



DAY 56



DAY 112



typical results vary from one patient to another

### KEY REFERENCES:

XP-828L in The Treatment of Psoriasis: A Randomized, Double-Blind, Placebo-Controlled Study. *J Cutan Med Surg* 2006;10:241-248.

(Poster presented at the 2006 American Academy of Dermatology [ADD] Convention)

Safety And Efficacy of a Milk-Derived Extract in the Treatment of Plaque Psoriasis: An Open-Label Study. *J Cutan Med Surg* 2005;9:271-275.

*In vitro* testing of **BioDERM** has demonstrated its potential to limit the production of Th1-type pro-inflammatory cytokines, such as interleukin-2 (IL-2), that contribute to the over-proliferation of keratinocytes and result in scaly skin.

DAY 1



DAY 56



DAY 112



typical results vary from one patient to another

## Patented Advantage

Thanks to a patented extraction process, **BioDERM** provides a high concentration of isolated growth factors, such as TGF- $\beta_2$ , as well as bioactive peptides, such as lactoferrin and immunoglobulins. These constituents – all derived from natural whey protein – work in concert to modulate immune function, inhibit overactive Th1-cytokine production, and consequently curb the over-proliferation of skin cells, thereby reducing the frequency and duration of scaly, itchy skin patches.

## Compatible with Other Treatments

**BioDERM** has no known interactions with other products or therapies, and can be easily incorporated into an existing treatment regimen.

## How to Use BioDERM

*Dosage Recommendation:* One capsule twice daily before meals.

To take full advantage of the benefits of **BioDERM**, the clinical studies indicate patients should use it for at least two months. Results will vary from one patient to the next. Because of its safety profile, **BioDERM** can be taken on a long-term basis.

*Side Effects and Contraindications:* **BioDERM** contains an ingredient derived from milk. Individuals allergic to dairy products should not use **BioDERM**.

*Pregnancy:* A woman who is pregnant, or might become pregnant, should consult a health-care practitioner before using this product.



## Supplement Facts

Serving Size: One Capsule

One Capsule Contains:		% DV
Isolated Whey Protein fraction (XP-828L complex)	400 mg.	*

Other Ingredients: Hypromellose (derived from cellulose) capsule.  
Magnesium Citrate/Laurate, Leucine, Silicon Dioxide.  
Contains ingredient derived from milk.

# BioDERM™

60 Vegetarian Capsules  
Code: SP650  
Dosage: 1 capsule bid

The active ingredient in BioDERM was patented and developed by Advitech, Inc. Quebec City, Canada



# Advitech

## BioDERM™

a Thorne Research exclusive that is clinically proven and compatible with other treatments



Clear Advantages

## BioDERM

a new, innovative, and safe nutritional supplement that helps reduce scaly and itchy skin!

for more information go to [www.bioDERMonline.com](http://www.bioDERMonline.com)



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