

# PENZIM

## fact sheet.

Penzim is a new enzyme-based skin care treatment for the whole body. Researched and developed by Jón Bragi Bjarnason, a biochemist at the University of Iceland over the past 25 years for use on the human body, using marine organisms from the North Atlantic. Since fish from Arctic waters digest their food in an environment of very low temperatures, their digestive system is equipped with super efficient enzymes. When this enzyme called Trypsin, also naturally found in the human body, is applied to the skin, the healing process is speeded up.

What is it about Penzim that sets it apart from other skin care products?

The active ingredient of Penzim is named Penzyme (marine Trypsin), which is patented and refers to 'penetrating enzyme'. This is the unique marine enzyme in Penzim and no other skin care product contains it. Penzim is a water-based formulation without greasy fats, oils, or creams that could interfere with enzyme activity. It is hypoallergenic, fragrance and preservative free; these additives can be the cause of allergies. Penzim is an all-natural product.

Why was this product developed ?

The Icelandic fishermen injure themselves on the nets and cut themselves when they gut the fish because of the intense cold because they cannot feel their fingers. The Icelandic Government requested the University of Iceland to carry out research for a solution to help fishermen to treat their hand injuries. Penzim products were developed from research associated with wound healing using proteolytic (super-active) enzymes. Penzyme was by far the most active proteolytic enzyme available because of its ability to cleave pathologically associated cellular proteins. Simply this means, it speeds the biochemical healing process, naturally.

From this discovery, development of large scale Penzyme protein purification was established, and research on the active enzyme took place with trials on human volunteers, (animals have never been used in the development of Penzim) which were initiated and actively pursued for a period of 5 years. These positive results from research clearly indicated that people could use Penzim for their benefit.

How does Penzim actually work ?

Penzim's direct effect upon microorganisms means that, not only are the membrane proteins of bacteria removed by Penzim, but toxins are naturally neutralised by the Penzyme active ingredient. Penzim selects damaged cells in a beneficial way, and speeds up the normal cellular repair processes. Body cells are made of protein, which are elements of amino acids and peptides, these are the basic building blocks of all life, which in turn signals to the white blood corpuscles to bring about the repair process.

What are Enzymes ?

Enzymes are ubiquitous proteins with specific roles within the body; they are the basis of all life. Enzymes act as catalysts, meaning that they change other substances without changing themselves.



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With two formulations -- gel and lotion. What advantages does each provide ?

The Penzim gel is a thicker formulation and easier to handle, in particular when applying to the face or small areas of the body. The Penzim lotion is runny, more of a solution than a lotion (fluid) but convenient to apply to larger areas of the body. It is most beneficial to rub or massage both formulations thoroughly into the skin until the area becomes dry, both for efficacy and comfort, leaving no sticky feeling on the skin.

The list of conditions Penzim can treat is very long. How is one product able to be effective on so many different conditions ?

Icelandic studies have demonstrated the efficacy of Penzim for a variety of medical conditions. Penzim is beneficial for arthritic pain and has demonstrated success with wound healing and treating 1<sup>st</sup> degree burns and sunburn. Penzim effects skin inflammation; it is effective for a variety of muscular, tendon and ligament pain together with bruising, associated with sports injuries. Conditions such as fibromyalgia, tendinitis, lymphangitis and athletic injuries, various dermatological indications such as psoriasis, eczema, acne and fungal infections also respond well to Penzim.

Can Penzim assist with muscle recovery ?

Penzyme is codfish Trypsin, the enzyme that helps muscle to recover after exertion. There are minute quantities of Trypsin naturally accruing in muscle, which assist in the removal of muscle waste products. However, when Penzim is applied to the leg muscles this recovery is much quicker.

Why is Penzim a cosmetic product and not a medical product ?

When Penzim is rubbed into the skin it performs many of the functions people are searching for in expensive cosmetic products. Penzim tightens facial skin, which helps to smooth out wrinkles, rather like a natural face-lift. EU legislation recognises Penzim as a cosmetic, however the public will soon be aware that the product has many exceptional properties, such as treating acne, which responds well to Penzim and it makes the face appear smoother. Patients, who have been treated with radiotherapy and have first-degree burns, have benefited greatly from using Penzim.

Natural Marine Enzymes in pharmaceuticals and cosmetics herald a new era of body care. No harm can come by experimenting with the use of Penzim on many body conditions. It is not intended for Penzim to be ingested, but it is perfectly safe in the mouth and indeed dentists are researching the use of Penzim for effective plaque control.

