

Rationale For Dermal™

Of primary consideration in the development of Dermal™ and other Wysong topical products is the fact that the skin is an absorbing organ. This permits utilization of nutrients that can directly feed the skin. But this understanding should also serve as a precaution against using substances that could be detrimental or toxic when absorbed.

DERMAL™

W Y S O N G

PURPOSE:

To supply natural nutrients to soften, smooth and moisturize the skin.

INGREDIENTS:

Rosehip Oil, Cold Processed Flax Seed Oil, Lecithin, Olive Oil, Jojoba Oil, Aloe Vera Oil, Borage Oil, Ascorbyl Palmitate, Hydrolyzed Protein, Essential Oils of Rosewood and Sweet Orange. Stabilized with Wysong Oxherphol™ (a natural antioxidant).

- Not Tested On Animals -

DIRECTIONS:

Apply a small dab to clean skin. Massaging with fingertips helps stimulate skin circulation and penetration of Dermal. Applications morning and evening provide best results.

ADDITIONAL SUGGESTIONS:

For natural skin cleansing, first wash area to be treated with Wysong Nature Cleanse™. Nature Cleanse naturally moisturizes and conditions the skin without oily residue. It is mild, hypoallergenic and nonirritating for delicate skin.

For best results, use Dermal as a part of the Wysong Optimal Health Program™, which includes healthy lifestyle choices, whole fresh foods, and healthy alternative products and supplements.



The Skin Is An Absorbing Organ

The "skin" of simple one-celled organisms is extremely important not only for protection, but also for respiration, alimentation and secretion. Essentially all life processes, and all contact and interaction with the surrounding environment are affected through this external coat. In multicellular organisms, there is an integument surrounding the cells, which further separates the organism from its environment. In complex organisms such as mammals, the skin is less functional since eating, respiration, and elimination are accomplished primarily through specialized organ systems.

But the skin is far from inert. The function of the skin as a barrier has been given more attention than its function as an absorbing, excreting, and breathing organ. Nevertheless, to one degree or another, skin retains all of the properties of the simplest unicellular organisms. Pericutaneous and transepidermal absorption can result in the passage of substances in the form of gases or liquids from outside the body through skin, directly into the vascular system. In some cases, this absorption can occur at a rate comparable to or exceeding the digestive tract's absorption capacity.

Aside from the normal production of oils and sweat from skin glands, the skin is also capable of losing body moisture. In the opposite direction, the skin has the capability of absorbing both water- and oil-soluble compounds directly into its structure and into the capillary networks deep within the skin. This absorbing capability of the skin is now being increasingly utilized in the medical field through the application of transdermal patches capable of administering drugs that have systemic effects. Examples of compounds absorbed via transdermal patches include morphine, aspirin, insulin, melatonin, nitroglycerine and testosterone.

Safety

A gigantic cosmetic industry has focused on the preparation of various topically-applied ointments and creams with a variety of beneficial effects attributed to them. Unfortunately, the consumer usually purchases

THE COMPLEXITY OF THE SKIN

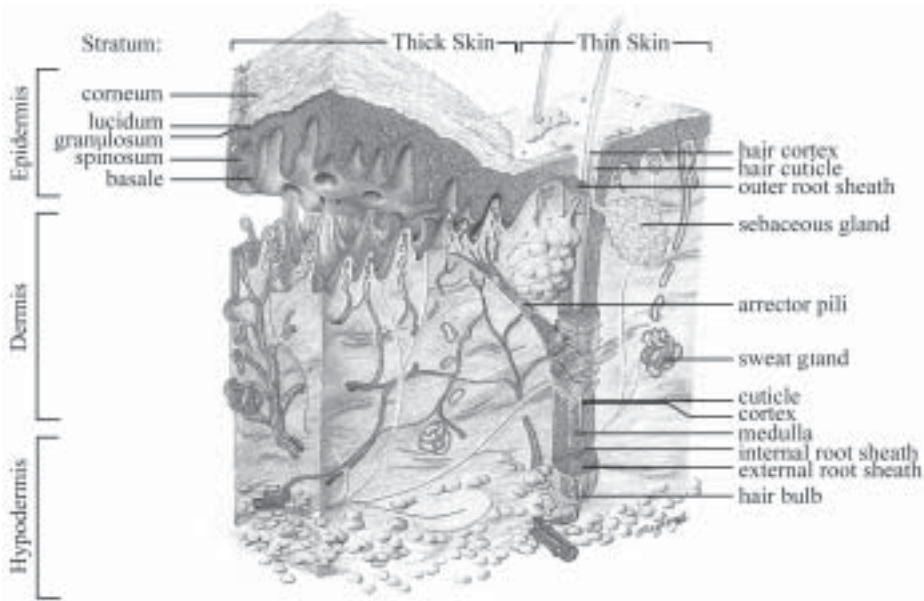


Figure 1. The skin is composed of epidermis and dermis. The skin is avascular (without blood vessels), so nutrients cross into epidermis by diffusion or absorption.

From Color Atlas of Histology by S. L. Erlandsen, et al.

products based upon the hope for cosmetic effect and does not give enough consideration to safety. In other words, an “Aloe vera night cream” may lead the consumer to believe that the beneficial attributes of Aloe vera will be realized if the product is used, but little consideration is given to the potential long-term health

effects of the variety of synthetic perfumes, emulsifiers, dyes, pH balancers, and preservatives that are also present in the cream. Not only is the consumer usually unaware of the potential effects of these compounds, but even regulatory agencies do not have the appropriate safety data to prove that these compounds, when

mixed in various ratios and proportions as is customary, are not dangerous in the long term.

Dermal™ Design

Dermal™ is composed of ingredients that are as close to their natural state as possible. Ingredients and processing used in Dermal are chosen with the same considerations as would be taken in creating a wholesome natural food. (We are not advocating that Dermal be eaten, however.) What is applied to the skin is in effect a food as much as that which we consume orally since both are capable of entering the bloodstream.

Dermal is designed not only to be natural and safe, but also to achieve certain goals in helping the skin maintain its optimal health. Additionally, an individual truly interested in maximum skin health and youthful vigor must supplement topical care with lifestyle modification. A proper diet of natural, whole foods combined with regular exercise, daily fresh air and sunshine, and a happy, peaceful, yet challenging lifestyle are all extremely important in achieving these goals.

WYSONG DERMAL™ INGREDIENTS	*SOME COMMON MOISTURIZING LOTION INGREDIENTS		
Rosehip Oil Cold Pressed Flax Seed Oil Lecithin Olive Oil Jojoba Oil Aloe Vera Oil Borage Oil Ascorbyl Palmitate Hydrolyzed Protein Essential Oils of Rosewood & Sweet Orange Wysong Oxherphol™ (A Natural Vitamin E and Botanical Oleo- resin Antioxidant) Table 1.	Water Mineral Oil Isopropyl Palmitate Petroleum Glycerin Stearic Acid Ceresin Glyceryl Stearate Cetyl Alcohol Sorbitan Oleate Candelilla Coax Triethanolamine Laureth-23 Carborner-934 Imidazolidinyl Urea	Methylparaben Propylparaben Trisodium EDTA Isohexadecane Ozokerite Microcrystalline Wax Lanolin Alcohol Paraffin Magnesium Sulfate Decyl Oleate Octyl Dodecanol Aluminum Stearate Methylchloro- isothiazolinone Citric Acid	Magnesium Stearate Potassium Stearate Sodium Stearate Cholesterol Cetyl Palmitate Sodium Polyacrylate Saccharide Castor Oil (n-Pantothenyl-Amidoethyl) Disulfide Sodium Myristate Sodium Borate Steryl Alcohol Methylisothiazolinone Fragrance
	*A random sampling of ingredients commonly used in retail skin lotions.		

Mechanisms of Action

• **Essential Fatty Acids:** One of Dermal's significant features is its high level (50-60%) of omega-3 linolenic essential fatty acid. Omega-3 fatty acids are the same class of fatty acids found in fish oils, and have now been proven through a variety of clinical studies to exert a wide array of healthful effects. It has been demonstrated that essential fatty acids have the ability to be absorbed by the skin to correct nutritional fatty acid deficiencies. This implies that by the topical application of fatty acids to the skin, it is possible to remodel and modify the nature of the cellular membranes, which are made up of fatty acids (see Figure 2).

For example, there is a lipid barrier between the granular layer and the horny layer of the skin that controls transdermal water loss. If the sphingolipid that makes up this lipid barrier contains high levels of arachidonic acid, or processing-altered fatty acids derived from a Western-style diet, there can be excessive water loss, drying and scaling of the skin.

In addition to omega-3 oils, Dermal also contains omega-6 essential fatty acids such as linoleic acid. If linoleic acid is incorporated into the sphingolipid barrier, the health of that lipid barrier is enhanced, and thus water loss through the skin is reduced.

Linoleic and linolenic essential fatty acid constituents help to stimulate eicosanoid synthesis. Certain categories of eicosanoids, particularly prostaglandins of the 1 and 3 series, are thought to stimulate tissue defense mechanisms and growth processes related to tissue regeneration. This property accounts for the use of Dermal for skin burns, hypertrophic scars, hyperchromic scars, refractile scars, cheloids, and other cosmetic effects such as

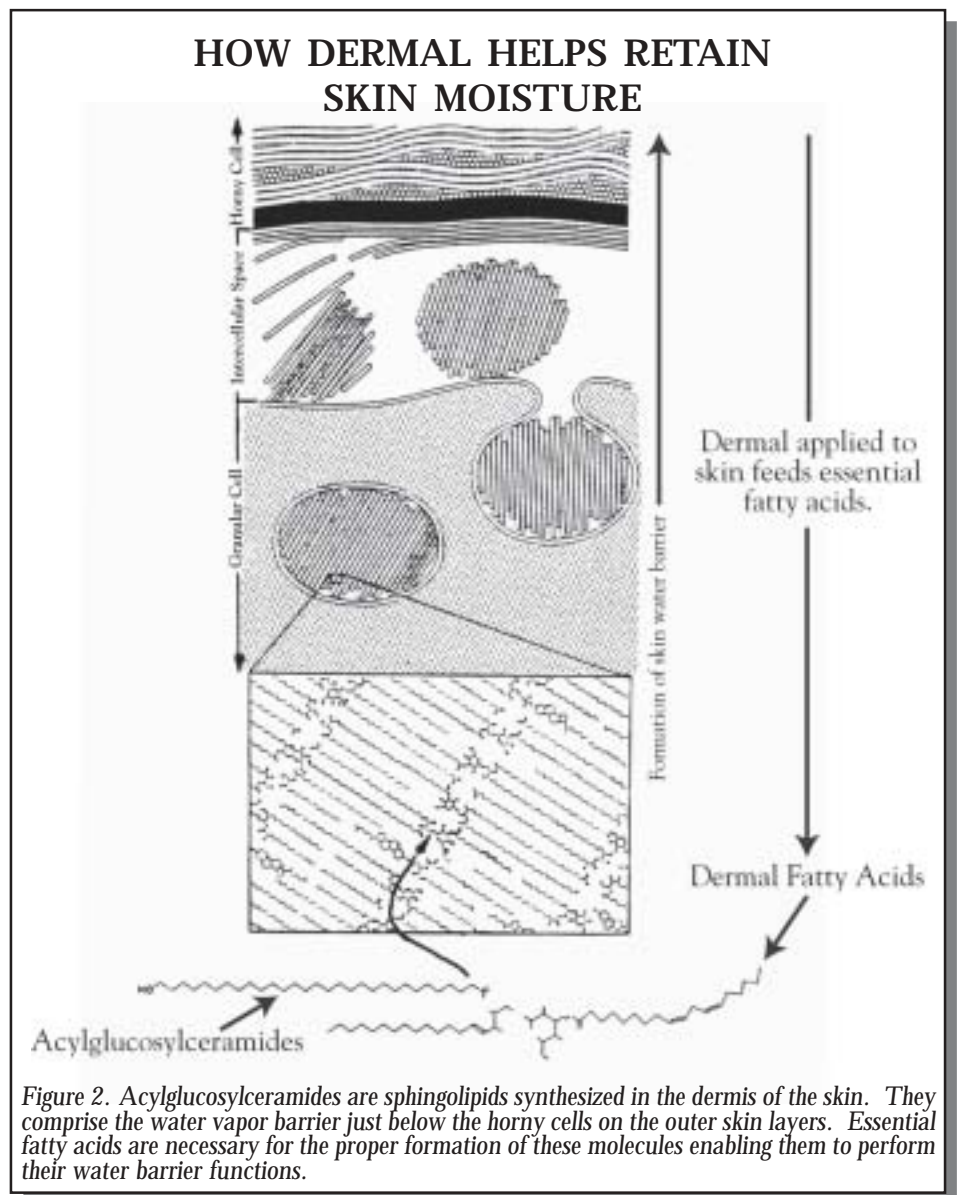


Figure 2. Acylglucosylceramides are sphingolipids synthesized in the dermis of the skin. They comprise the water vapor barrier just below the horny cells on the outer skin layers. Essential fatty acids are necessary for the proper formation of these molecules enabling them to perform their water barrier functions.

smoothing facial lines and wrinkles and slowing down the formation of new aging lines.

A variety of allergic and inflammatory conditions are also dependent upon the makeup of the fatty acids in the tissues of the skin. Fatty acids from the omega-6 family, particularly arachidonic acid (common in the modern diet), form a variety of pro-inflammatory eicosanoid biochemicals. On the other hand, by Dermal supplying omega-3 fatty acids to the skin, the omega-6 fatty acids, including arachidonic acid, can be replaced and anti-inflammatory eicosanoids will result. Decreased inflammation decreases allergic-type

reactions in the skin and reduces scarring and loss of skin suppleness and resiliency.

Dermal's highly unsaturated omega-3 and omega-6 fatty acids are quite fluid and have the capability of changing the texture and suppleness of the skin. Dermal replaces the rigid saturated fats of tissue membranes in people on the average modern hydrogenated oil diet. Dermal's highly reactive nutritional fatty acids are also believed to affect energy transfer into and out of the skin tissues and thus increase its overall health capabilities.

Another function of the important unsaturated fatty acids in Dermal is

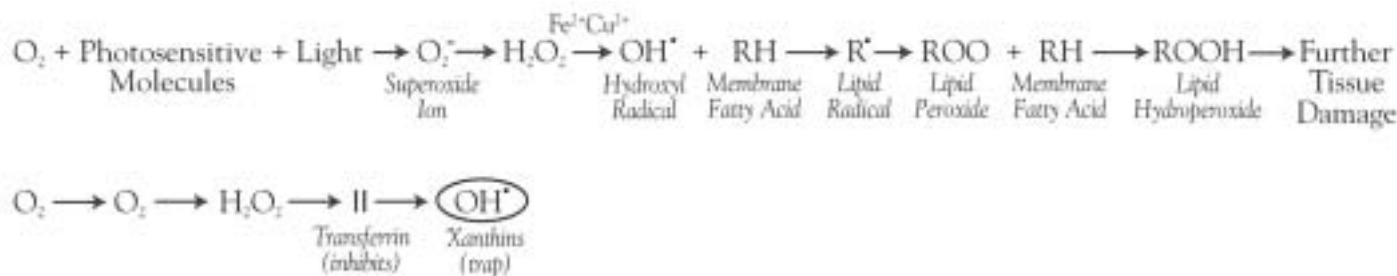


Figure 4: Photosensitization through the production of a disrupted fatty acid inhibited by transferrin and xanthine compounds.

Additionally, Oxherphol has the ability to penetrate the skin to inhibit skin-damaging free radical production by combining with oxidizing iron molecules and highly reactive hydroxyl radicals.

• **Free Radical Protection:**

Our life-sustaining atmosphere is in part composed of one of the most toxic gases known – oxygen. Although all aerobic organisms depend on oxygen to burn fuel for energy, oxygen has the ability to burn and destroy tissue as much as it does in a bonfire. By using oxygen “burn” in a carefully controlled fashion, life has been able to succeed, even flourish. But this balance is an intricate one that depends upon a wide variety of factors to work effectively.

The skin is particularly vulnerable to the overproduction of oxygen free radicals. A variety of molecules exist in the skin, including the tanning pigment melanin, which have the ability to be photo-oxidized. This process activates oxygen into the superoxide ion, which in turn can produce free radicals that have the ability to disrupt important tissue biochemicals such as membrane fatty acids and genetic material.

In the presence of iron or copper, which are normal nutrients, hydrogen peroxide formed from the superoxide anion can produce the hydroxyl radical, which is among the most destructive of all free radical

species. The reaction from photosensitization through the production of a disrupted fatty acid, for example, is as shown in Figure 4.

Two other interesting natural tissue Dermal compounds are also highly effective in preventing free radical damage. One is the transferrin compound that has the ability to chelate iron to prevent the conversion of hydrogen peroxide into the hydroxyl radical, and the others are xanthine compounds such as 8-hydroxyxanthine and 2-thioxanthine, which have the ability to quench the hydroxyl radical if it is formed.

These compounds have the ability to be incorporated into skin products and be absorbed transdermally to protect against important free radical generating reactions. Free radical scavengers thus minimize the possibility of skin damage as a result of normal metabolic processes or as a result of environmental insult such as solar radiation, atmospheric pollution, and topical contamination. To prevent this damaging reaction, proper nutrition and vitaminic and plant flavonoids in Dermal are of great benefit (refer to the Optimal Health Program – see Optimal Health pages 1-2).

Wysong Dermal Skin Treatment

Wysong Dermal is an excellent skin “youthing” and preventive therapy balm. It effectively feeds skin tissue and provides protection against

the many assaults to the skin from modern living. In addition, Wysong Dermal contains ingredients that are finding application in the treatment of a variety of skin maladies including scarring and other dermatological problems resulting from radiation treatments for cancer.

After an aggressive skin-damaging cancer treatment regimen, patients often require special dermatological treatments to recover. Dr. Herbst applies the ingredients of Dermal. “As a Radiotherapist, I work with many patients who have undergone surgery and therefore have scars. In addition, subsequent radiation causes secondary reactions in the skin such as inflammation, darkening, and dermatitis. These effects are inevitable following radiation treatments. This presents an aesthetic problem for patients...”

Examples of clinical uses and results of topical therapy include:

1. Faster healing of lesions.
2. Treatment of scars that cause tightening of the skin and difficulty in moving of the arms and legs results in loosened tension in the skin. Results have been very good in general and spectacular in some.
3. A man who had his whole head radiated due to a brain tumor lost all signs of radiation

FREE RADICAL DAMAGE TO MEMBRANES

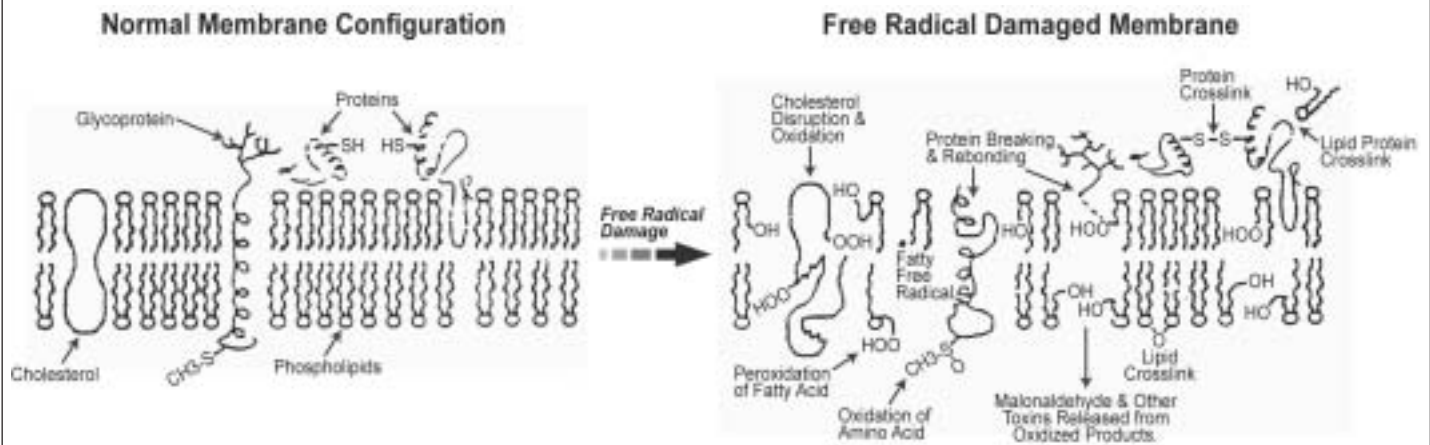


Figure 5: Tissue membranes are complex bilayer molecular structures capable of undergoing disruption from free radicals. The result is the loss of structural and functional integrity.

treatment after four weeks of treatment with just one of Dermal's ingredients.

4. Another patient who showed an acute dermatitis after radiation had an excellent recovery 24 hours after being treated.

With regard to other patients not necessarily suffering from radiation-induced trauma, ingredients in Dermal have proven to be beneficial. The most important factor in the use of Wysong Dermal is that its use should be of a continuous nature.

Application should be made on a daily basis.

Directions for Use

For natural skin cleansing, first wash area to be treated with Wysong Nature Cleanse™. Nature Cleanse naturally moisturizes and conditions the skin without oily residue. It is mild, hypoallergenic and nonirritating for delicate skin.

After washing, bathing or showering, wet hands with warm water and leave moist. Immediately apply a small dab to skin, massaging with

fingertips to stimulate skin circulation and penetration. Applications in the morning and evening provide the best results.

For best results, use Dermal as a part of the Wysong Optimal Health Program, which includes healthy lifestyles choices, whole fresh foods, and healthy alternative products and supplements.

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

DERMAL™ APPLICATIONS

- **Moisture Retention**
- **Smooth Facial Lines**
- **Decrease Wrinkles and Stretch Marks**
- **Slow Formation of Agelines**
- **Increase Suppleness, Elasticity and Plumpness of Skin**
- **Resist Radiation or Environmental Toxin Dangers**
- **Decrease Expression Lines**
- **Improve Skin Color and Texture**
- **Burns**
- **Hypertrophic Scars**
- **Hyperchromic Scars**
- **Refractile Scars**
- **Cheloids**

Addendum: Clinical Cases

Wysong Dermal contains active tissue regenerating ingredients used in maintaining the skin texture and youthfulness, preventing untimely aging, and diminishing wrinkles. The following series of photographs show the evolution of some clinical cases. They are studies carried out by qualified professionals in the medical and cosmetic fields. The photographs correspond to actual cases and are not retouched. Any photographic technique dissimilarity is inadvertent.

ANESTHETIC SCARS



Woman 33 years old.



After 4 months treatment.

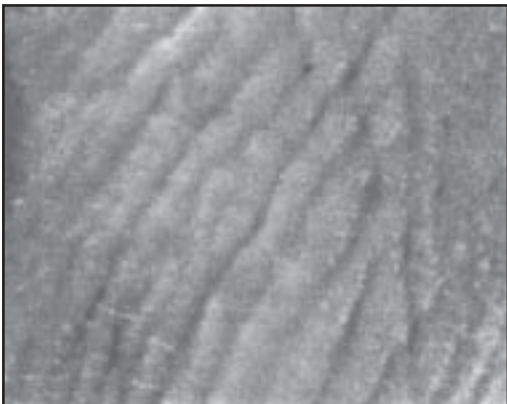


Eye lesion before treatment.

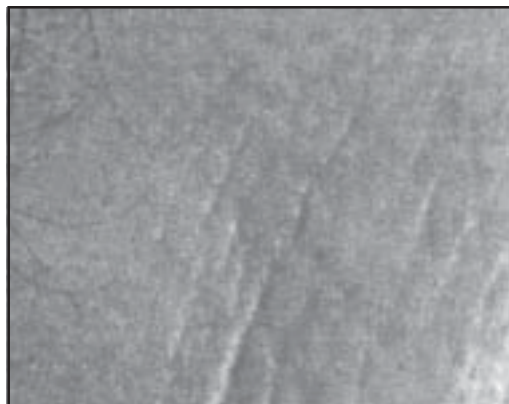


After 4 months treatment.

WRINKLES



76-year-old. Multiple aging.



After 3 months treatment.

SCARS



36-year-old. Sutured chin scar.
One month of evolution.



After 8 months treatment.



4-year-old boy with scar after months of
evolution.

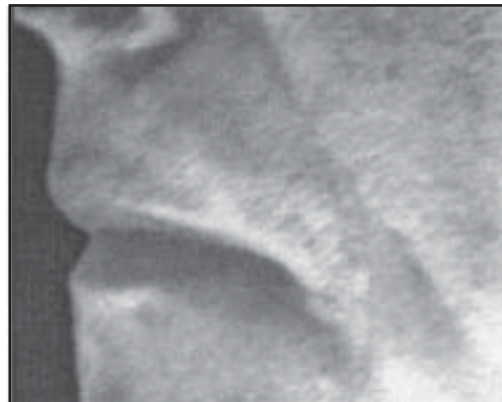


After 10 months treatment.

BUCAL CREASE



Bucal crease before treatment.



After 3 months treatment.

AGING



62-year-old wrinkles before starting treatment.



After 2 months treatment.



76-year-old wrinkles before starting treatment.



After 3 months treatment.

HYPERCHROMIC



31-year-old evolution after 4 months.



After 6 months treatment.

HYPERPIGMENTATION



28-year-old. Hyperpigmentation in the face, 9 months evolution.



After 6 months treatment.

DERMAL™ SCIENTIFIC REFERENCES

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