

Frequently asked questions about KeraLase and KeraFactor Products

What is KeraFactor serum?

Based on six years of extensive research to address thinning hair, the patented KeraFactor formula combines a proprietary set of biomimetic (bio-identical) polypeptides for scalp revitalization. Other topical products include only a few growth factors, and no other commercially available topical consists of the complete set included in the KeraFactor formula. Most importantly, proprietary and patented technology allows the KeraFactor formula to contain significantly higher concentrations of each growth factor. The customized KeraFactor formula provides growth factors typically deficient in the skin during hair loss or poor hair health.

How do we achieve Optimal Skin Absorption of KeraFactor Serum?

Lutronic has two state-of-the-art technology systems that can assist in the scalp's preparation to increase the KeraFactor serum absorption. Specifically, the Lutronic LaseMD Ultra systems create micro- columns' or channels in the epidermis during a 10-minute treatment with little to no discomfort and no downtime for participants. One study shows the enhanced absorption of nano-liposomes is five times higher because of the sponge-like micro- columns' unique properties. Absorption of the KeraFactor serum allows hair follicles to receive compounds that initiate repair and renewal of the scalp to produce thicker, healthy, fuller-looking hair.

Why use a Nano-liposome?

Each of the KeraFactor growth factors is individually wrapped in its own protective nano-liposome "shell" for increased skin absorption. Absorption into the skin is essential to provide the formula a pathway into the scalp efficiently to maximize results. Treatment of the scalp with the Lutronic LaseMD Ultra system helps prepare the scalp for further increased nano-liposome absorption.

What does biomimetic/ biosynthetic mean?

Biomimetic or Biosynthetic means that the compound is made with the same chemical structure as the "real" human version, mimicking the functions of the compounds produced naturally by the human body. The KeraFactor serum includes only such synthetic compounds. The KeraFactor serum does not contain any compounds extracted from plants, animals, or humans (e.g., human cord blood, stem cell media, or bone marrow).





Why use an Energy-Based Device?

One of the skin's critical functions is to protect the body's interior from toxins and injury. The nanoliposomes that encapsulate KeraFactor's growth factors increase absorption in the scalp via the hair ducts. However, for increased absorption, the Lutronic LaseMD Ultra can create additional channels to increase total KeraFactor absorption in the scalp, improving and boosting results.

Who might be interested in KeraFactor treatments?

According to the American Hair Loss Association, 50% of men over 50 and 40% of women over 50 experience hair thinning and loss. Even younger men and women in their twenties (25%) suffer hair loss. The US hair loss market is a \$1.74B market and is one of the fastest-growing areas in aesthetics, with a 24% CAGR for the next four years.

Why are Complementary Treatments essential?

The LaseMD Ultra system provides complementing preparation of the scalp to increase the KeraFactor formula's absorption. KeraFactor products contain large concentrations of key bioidentical growth factors that most people with poor hair and scalp health lack. In addition to increasing the skin's absorption of the KeraFactor formula, Lutronic's LaseMD Ultra system provides a variety of independent skin treatments.

What should participants expect?

While everyone is different, improvement in scalp health and an increase in hair's thicker appearance may be visible within 2-3 months. (This assumes the patient has followed the treatment protocol as published.) Most patients see the most improvement three months post-treatment series, with the maximum results occurring between 6 and 12 months post the treatment series.

Who is NOT a candidate?

- People who currently have or have been diagnosed with skin cancer should not use KeraFactor products without their physician's approval.
- People with an active infection should not use KeraFactor products.
- Any patient who experiences an allergic reaction to KeraFactor products should stop using KeraFactor products immediately and be examined by a dermatologist.





What are the Recommended Treatment options?

Each treatment session should begin with a scalp treatment with the LaseMD Ultra, followed immediately by applying the KeraFactor serum. Concerning timing and number of treatments, there are two recommended options:

- 1. One recommendation is one treatment session every two to four weeks for 12 to 24 weeks (6 total treatments).
- 2. The second recommendation is one treatment session every month for 3 to 6 months (3-6 total treatments), AND participants should apply KeraFactor Solution and Shampoo at home, each day between treatments.

What happens when/if a patient stops using KeraFactor serum?

To date, there have not been long-term studies. However, there is anecdotal evidence showing that results may be maintained for up to 12 months of stopping KeraFactor products' use. Once patients finish the recommended treatment protocol, it is recommended to use the take-home solution and shampoo to maintain the results. Physicians may recommend in-office "touch up" treatments every 3 to 6 months.

Will it look natural?

The patented KeraFactor formula provides biosynthetic compounds that are already existing in various concentrations in the scalp. Therefore, KeraFactor can only amplify existing hair without changing its structure and function and, in essence, repair the scalp's health to produce naturally fuller and thicker-looking hair.

What about Hair Transplant Patients?

Transplanted hair follicles will benefit from the absorption of growth factors in the same manner as existing hair follicles. However, the patient should consult with their physician about the treatment course's timing or start the take-home KeraFactor products post-transplantation.









What is a Growth Factor?

- Growth factors are proteins that signal specific tissues' growth such as epidermal and dermal cells, blood vessels, and more.
- Everyone has growth factors naturally within their blood at varying concentrations and levels depending on various factors, including area, age, general health, or disease.
- As cells naturally age and die, these are necessary to assist in replacing old cells with new ones.
- The KeraFactor proprietary and patent formulation includes biosynthetic versions of the growth factors that are most influential to repairing the scalp and addressing hair thinning.

How were the Growth Factors Selected?

Initial research showed that most people with thinning hair are deficient in certain key growth factors. For example, VEGF stimulates the growth of new blood vessels, which can feed hair follicles. (The KeraFactor formula includes a biosynthetic version of VEGF – sh-polypeptide-9). These people may have too many other growth factors that inhibit growth associated with hair and scalp health. For example, TGF-b1 may inhibit the anagen phase of hair growth. (Anagen is the phase where resting follicles "wake up" and restart hair production.) Therefore the KeraFactor formula does not include TGF-b1.

How do we get high concentrations of Growth Factors?

Most of the growth factors included in the KeraFactor serum have been very difficult to synthesize in the past. As a result, available topical formulations do not have these growth factors or have low concentrations of some of them. All of our growth factors have been synthesized in high concentrations and wrapped in nanoliposomes separately through proprietary and patented manufacturing processes. They are then combined, resulting in the finished and patented KeraFactor formula -currently, KeraFactor is the only family of products that includes all of these growth factors, each of which is in a relatively high concentration.





How does KeraFactor differ from using PRP?

- a) Platelet-Rich Plasma (PRP) is a 30-60 minute procedure where blood drawn from the patient is spun in a centrifuge to increase the patient's platelets and then applied or injected into the scalp. Results can be inconsistent as the growth factors available are already in the patient's blood. If a patient is highly deficient in one or many growth factors needed for hair health, then the PRP procedure may not be effective. Additionally, one of the typical growth factors found in blood, TGF b1, may block hair follicles' transition into the anagen (new growth) phase.
- b) PRP with micro-needling: Applied topically after any micro-needling, PRP is very ineffective since minimal PRP solution will get absorbed. Studies have shown that immediately after the microneedles were withdrawn from the skin, the "holes" close, and osmotic pressure pushes any cosmeceutical or solution out of the holes.
- c) KeraFactor with LaseMD Ultra: In contrast to PRP, KeraFactor products include proprietary and patented formula with high concentrations of bio-identical growth factors wrapped in a nanoliposome delivery system customized for people with thinning hair due to poor scalp health.
- a. KeraFactor researchers reviewed well over 20 different growth factors and dismissed any that negatively impacted hair growth (e.g., TGF-b1)
- b. Each of the selected growth factors is individually wrapped in nano-liposomes to increase skin absorption. The concentration of each growth factor was raised to repair any growth factor deficiencies associated with thinning hair.
- c. The customization of growth factors differs from the PRP (and stem cell therapies), which starts with only those growth factors existing in the patient's blood and may not provide growth factors in high enough concentrations to address the global issues relating to poor hair and scalp health.
- d. Treating the scalp with a LaseMD Ultra before application of KeraFactor serum further improves skin absorption.





