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ALASTIN SKINCARE™ SUPPLEMENT

GUIDE®

ALASTIN™ SKINCARE

“Recycling the Matrix” – ALASTIN Skincare™ with TriHex Technology™ provides a new approach to optimizing rejuvenating procedure outcomes and treating aging skin





Suneel Chilukuri, M.D.
Dermatologist
Refresh Dermatology
Houston, TX



Dr. Doris Day, M.D.
Dermatologist
Day Dermatology & Aesthetics
New York, NY



Sabrina G. Fabi, M.D.
Dermatologist
Cosmetic Laser
Dermatology
San Diego, CA



John L. Jennings, Jr., M.D.
Dermatologist
Goldsboro Skin Center
Goldsboro, NC



Roberta Palestine, M.D.
Dermatologist
The Dermatology Center
Washington, DC



Alexander Rivkin, M.D.
Cosmetic Surgeon
Westside Aesthetics
Los Angeles, CA



Deanne Robinson, M.D.
Dermatologist
Connecticut Dermatology
Group
Norwalk, CT



Mark Rubin, M.D.
Dermatologist
Lasky Aesthetics & Laser
Center
Beverly Hills, CA



Mark Youssef, M.D.
Cosmetic Surgeon
Younique Cosmetic
Surgery
Santa Monica, CA

“Patients always appreciate being able to return to their daily routines as soon as possible. With Alastin’s post procedure kit, our patients are typically able to return to their normal activities within 1 to 2 days following aggressive radiofrequency microneedling and 4 to 7 days following fully ablative laser treatments.” - Dr. Suneel Chilukuri

Much has changed in the last decade regarding cosmeceutical technologies that can be used in a complementary manner with rejuvenating procedures or as the basis of long-term anti-aging skin care. Our understanding of the science related to the functioning of the skin’s extracellular matrix (ECM) has advanced significantly and much of this new knowledge can be adapted to topical preparations. This science is particularly relevant when sourced from the wound healing literature and adapted to modern skin care. ALASTIN Skincare™ has adopted this approach with its technologies focusing on chronic wound care management concepts as a strategy for both enhancement of rejuvenating procedures as well as control and limitation of the effects of skin aging. After all, skin has been exposed to years of ‘wear and tear’ extrinsically from pollutants and chronic sun exposure and intrinsically from effects of the aging process – a situation akin to a chronic wound.

A key factor related to both wound healing and regeneration is the extracellular matrix (ECM), which is the central orchestrator of communication between cells and a multitude of proteins. Changes within the matrix dictate outcomes in cellular function and protein production. Aging and photodamage directly affect these essential functions creating inefficient communication between the constituents of the ECM. This ongoing conversation needs to continue uninterrupted to ensure healthy skin maintenance and renewal, but breakdown products tend to accumulate and disrupt communication in the following ways:

- Photodamage releases enzymes (MMP-1, collagenase) that fragment collagen¹
- Smaller collagen fragments affect the fibroblast adhesion to this stunted extracellular collagen, preventing them from stretching out (spindle form) on their long collagen base, resulting in a rounded fibroblast shape²
- A rounded fibroblast is a senescent, inefficient fibroblast producing limited amounts of collagen and elastin, impeding regeneration²
- Acute bursts of sun exposure cause white blood cells to release neutrophil elastase, affecting the quality of existing elastin fibers, breaking down fibrillin components^{1,3}
- The fragments of collagen that remain, known as gelatin, adhere to the elastin fragments causing an agglutination of gelatinous clumps interfering with normal ECM communication
- Intrinsic aging also results in accumulation of wear and tear waste products – intracellular protein fragments and glycation end products that further stick to collagen fibers and proteins⁴

Thus we have a matrix replete with sludge, preventing component communication and inefficient in its regenerative capacity. How do we turn this all around?

ALASTIN Skincare™ with TriHex Technology™ products combine selected peptides and botanicals that target these ECM changes. In a sequence of events, these actives progressively break down the clumped collagen/gelatin elastin bundles and then stimulate replacement with new collagen and elastin, effectively recycling the ECM.

The process of recycling the matrix begins with the release of gelatinase enzyme (MMP-2), which reaches maximal levels at 18-22 days thus dissolving the gelatinous collagen/elastin bundles, thereby preparing the matrix for new collagen and elastin synthesis^{5,6}. The TriHex Technology™ tripeptide/hexapeptide combination, created in a lipid moiety for improved absorption, is responsible for clearing this segment of the matrix and stimulating new protein synthesis. In addition, oleuropein stimulates the proteasome system that recycles intracellular protein break down products. Phosphatidylserine (PS) decreases MMP-1, collagenase levels and both PS and oleuropein decrease glycation end product formation⁶⁻¹⁰. Multiple potent antioxidants and soothing botanicals provide major symptomatic relief for cosmetic rejuvenating procedures.

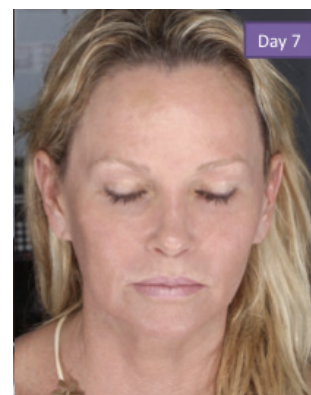
The ALASTIN Skincare™ Procedure Enhancement System has been used as an adjunct to skin resurfacing and a variety of other rejuvenating procedures. These procedures often denature collagen as part of the process, primarily because collagen fragments are a potent stimulus for neocollagenesis. These fragments normally signal fibroblasts to produce new long stranded collagen. However, if the ECM is 'clogged' with agglutinated collagen/elastin fragments, the signaling produced by the procedure will be relatively inefficient. If, however, a period of 'pre-conditioning' is adopted (2-3 weeks) before the procedure, this sets the stage for ECM clearance by optimizing signaling between collagen fragments and fibroblast cells, improving regeneration secondary to the procedure.

The pre-procedure routine employed for the Procedure Enhancement System begins around 14 days prior to the procedure. The sequence involves the use of the ALASTIN Skincare's™ Gentle Cleanser, Regenerating Skin Nectar, moisturizer and sunscreen. This sequence optimally prepares the skin for the rejuvenating procedure. Following the procedure and supporting the skin through the recovery phase, the same process of application takes place, except that in the case of invasive procedures, an occlusive moisturizer is used for the first 3-4 days until the crusting phase is resolved. In practical terms this has translated to notably improved outcomes in a variety of procedures.

In relation to invasive procedures, fractionated CO₂ technologies are ideal procedures for adjunctive ALASTIN Skincare™ product use. Dr. Sabrina Fabi has had extensive experience in pre-conditioning and post-procedure use of ALASTIN Skincare's™ Invasive Procedure Enhancement System Kit.

"I am especially impressed at the rapid change in healing that we see in patients particularly between day 4 and day 7 following the procedure. The ability to be able to use make-up and interact socially soon after the procedure is a major advantage to the client, particularly with the more aggressive therapies. The use of the Alastin program appears to significantly improve their chances of this happening. It appears from the clinical studies that we are undertaking that there is a distinct advantage in healing time and symptomatic relief with Alastin products compared with Standard of Care".

Dr. Deanne Robinson echoes these sentiments. *"In a split-face study treating patients with non-ablative fractional resurfacing, patients utilizing the Alastin system experienced significantly less edema and erythema post procedure. These differences resulted in less down time and the ability to return to normal activities without sacrificing the desired results, thereby enhancing patient satisfaction. I was impressed with the rapid and significant improvement in overall tone, texture, and luminosity of patient's skin, which enhanced the resurfacing results. The Alastin system is a welcomed paradigm change in the treatment of laser resurfacing patients."*



Fractionated CO₂ Laser Treatment
Photos courtesy of Dr. Sabrina Fabi



Microneedling immediately post procedure



Microneedling two minutes after Skin Nectar application
Photos courtesy of Dr. Youssef



TotalFX resurfacing, Use of Aquaphor post-treatment day 2
Photo courtesy of Dr. Rivkin



TotalFX resurfacing, ALASTIN Procedure Enhancement System used pre- and post-treatment day 2
Photo courtesy of Dr. Rivkin

In an interesting comparative case study, Dr Alexander Rivkin analyzed one client's experiences undergoing two TotalFX laser treatments, one with and one without Alastin product usage. The first treatment was in 2015 and the second in 2016. In both treatments, TotalFX was used on all facial zones (excluding the nose and eyelids). In order to compare the two occasions, Dr. Rivkin monitored the post-TotalFX recovery period of the patient each time.

"With the use of Alastin products, the patient experienced significant reduction in intensity of redness, swelling, and crusting. On day 2 post treatment, significantly more efficient separation of crusting was seen with Alastin. This allowed her to apply make-up much earlier. The patient experienced less flaking, scaliness, and roughness of the skin. Also, the patient noticed that the duration of all adverse effects was significantly shorter when she used Alastin. With use of Alastin products following treatment, the patient's skin retained a greater amount of moisture allowing for a quick recovery and an overall smoother texture. She also noticed that during the ALASTIN-mediated recovery period she experienced less discomfort."

Dr. Arisa Ortiz, San Diego CA, another Alastin procedural system enthusiast adds *"The Alastin Procedure Enhancement System has been a great addition to my laser practice, particularly for fractional resurfacing and needle radiofrequency procedures, such as the Halo and Fractora™. It provides my patients with an easy-to-follow kit for pre and post-care that augments results and hastens downtime by several days. Unlike most skin care products, the Alastin kit has been tested specifically for immediate post-laser care and is extremely well-tolerated. Patients rave about the Regenerating Skin Nectar and often continue its use even after post-operative healing is complete."*

For the less invasive procedures, ALASTIN Skincare's™ Non-Invasive Kit, without the occlusive moisturizer, is being used with great success. For example, Regenerating Skin Nectar alone is being used as an active glider at the time of microneedling by Drs Mark Youssef and Doris Day.

They explain, *"For procedures where 2-4 sessions are required, clients may not be willing to wait the 2 weeks required for pre-conditioning. In these cases, the period between session 1 and 2 then becomes the*

pre-conditioning period and the subsequent sessions gain the benefit of use of the Nectar between sessions. In that way we accommodate clients anxious to begin their procedures immediately”.

In RF/microneedling combination treatments, the full kit can be used. Dr. Suneel Chilukuri is conducting a side by side informal trial featuring ALASTIN Skincare™ products compared to those commonly used for post-procedure healing (including Aquaphor, Vaseline, SkinMedica HA5 Ceramide).

“Patients always appreciate being able to return to their daily routines as soon as possible. With Alastin’s post procedure kit, our patients are typically able to return to their normal activities within 1 to 2 days following aggressive radiofrequency microneedling and 4 to 7 days following fully ablative laser treatments.”



Photo on left shows patient immediately following RF Microneedling. Photo on right shows patient seconds after applying Alastin Nectar & Occlusive. Photo courtesy of Dr. Chilukuri.

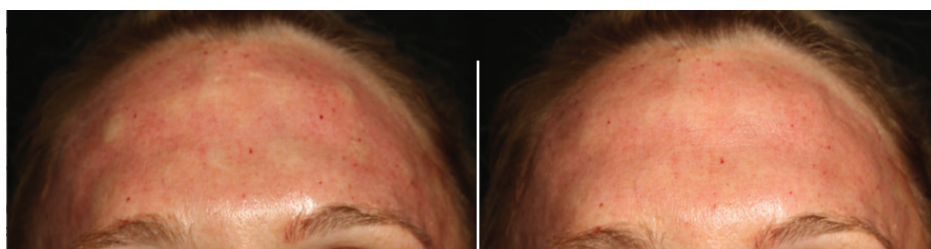


Photo on left taken seconds after applying Alastin Nectar & Occlusive. Photo on right taken 5 minutes after application of Alastin Nectar & Occlusive. Photo courtesy of Dr. Chilukuri.

Dr Roberta Palestine notes, *“Our patients who had laser resurfacing a few years ago without Alastin, and now have a laser resurfacing procedure with pre-conditioning and post-care with Alastin, are very pleased with the faster and more comfortable healing. They are essentially their own control group, and they really appreciate the improvement in the total procedure experience.”*

These experiences with the Procedure Enhancement line as well as impressive biopsy results provided an ideal segue for the next release of products within the ALASTIN Skincare™ portfolio.

The Restore and Renew anti-aging range was formulated with similar ECM modulating activities in mind. This is a natural progression following a procedure to provide long term maintenance with the same scientific principles, or as a stand-alone anti-aging product range. The peptides and PS remain the same, constantly working on ECM recycling, but healing actives have been replaced by volumizers. Thus, PPAR_γ agonists that encourage conversion of pre-adipocytes to young healthy adipocytes have been added to the mix¹⁰. This plumping effect on the skin adds radiance and fullness to the skin layers, complementing the ECM changes of neocollagenesis and ne elastogenesis. The elastotic bundles described above are often apparent as thick unhealthy elastic fibers. With time, the ALASTIN Skincare™ Restore and Renew flagship product Restorative Skin Complex with TriHex



Baseline



Month 2

Using Restorative Skin Complex
Photos above courtesy of
ALASTIN Skincare, Inc.
Visia, Canfield Scientific.

Technology™ has demonstrated efficacy in changing the nature of these fibers and redistributing them uniformly into the deeper dermis with topical application alone (Fig. 1)

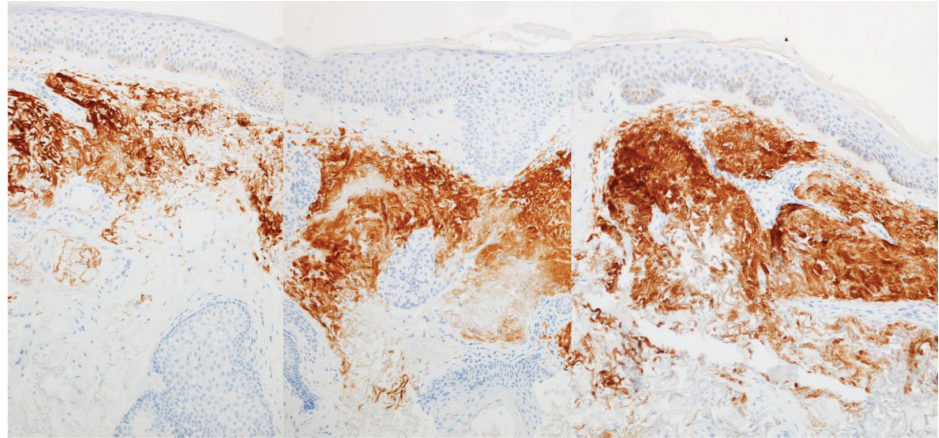


Figure 1. Elastin staining 100xmag; Topical application alone - preauricular region: L-(baseline), M-3 weeks after application), R-8 weeks after application. Slides and analysis courtesy of Antoanella Calame, MD. Compass Dermatopathology, La Jolla, CA.

This anti-aging formulation has proven effective in improving skin volume and lift, fine lines and wrinkles, pigmentation and texture, thus improving overall skin health, appearance, and patient satisfaction. Dr. Mark Rubin has had extensive experience with the experience with Restorative Skin Complex as one of the earliest adopters of the anti-aging range.

"In my 30 years of practice, I have recommended a lot of skincare products. Although many products have had beneficial effects for patients, it's been rare to have a single product that the majority of patients like and also see positive results from. I have used ALASTIN Restorative Skin Complex on several hundred patients over the last few months and I have been impressed by both the degree of improvement in the majority of patients' skin and the rapidity of the response to the products. Most patients saw positive changes in 3-4 weeks. While no skin care product is the "Holy Grail", ALASTIN Restorative Skin Complex has been one of the most impressive skincare products I have ever recommended to my patients."



Photos courtesy of ALASTIN Skincare, Inc.

**Canfield Visia Results
with Restorative Skin Complex**

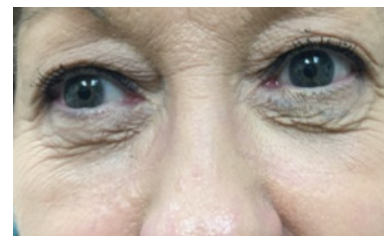
- Baseline versus 8 week Follow Up
- Skin Complex BID

Wrinkle	BL (mm ²)	FU 1 (mm ²)	% change
Total Area	342	253	-26%
Fine Area	128	96	-25%
Coarse Area	213	155	-27%

In addition to the general facial skincare anti-aging products, ALASTIN Skincare™ has introduced a product designed to restore the eyelid skin. Sagging of eyelid skin, wrinkles, dark circles and under eye bags are the primary patient concerns related to aging of the upper and lower eyelid areas. The eyelid skin, being four times thinner than other parts of the body, manifests with earlier, more apparent, signs of aging. ALASTIN Skincare's™ Restorative Eye Treatment incorporates TriHex Technology™, botanicals and other actives to help address signs of the aging eye.

Dr. John Jennings has had excellent experience with the eye product. He shares with us a patient testimonial. *"I can truly say the Alastin Restorative Eye cream is a great product and has made a great difference in my under eye area. I typically have very bad under eye areas and I could see a great difference in just a few weeks. Now that I have seen what the eye cream can do, I would not want to be without it! Great product!"*

These overall positive experiences from physicians and consumers related to the Procedure Enhancement System and the Restore and Renew anti-aging line range demonstrate the benefits of ALASTIN Skincare's™ scientifically-designed topical formulations as physicians seek to optimize patient outcomes and satisfaction related to rejuvenating procedures, as well as to enhance patients' overall skin health with anti-aging effects. ALASTIN Skincare™ is proud to continue its success with current and new product line-ups stressing the unique scientific validation of all products as the essential pre-requisite to any new product launch. With this in mind, ALASTIN Skincare™ is destined to be a new leader in the skincare field.



ALASTIN Restorative Eye Treatment
Photos courtesy of Dr. Jennings

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ALASTIN Skincare™ with TriHex Technology™

1. REGENERATING SKIN NECTAR with TriHex Technology™

Enhances healthy skin by helping to clear damage and debris in the extracellular matrix and support the skin's natural ability to produce new, healthy elastin and collagen. High antioxidant activity is designed to calm the skin and reduce the appearance of redness.

2. BROAD SPECTRUM SPF 30+ SUNSCREEN

Non-comedogenic, moisturizing UV protection for the face, ideal for use post-procedure

3. SOOTHE + PROTECT RECOVERY BALM

Supports renewal of post-procedure skin and hydrates dry and compromised skin.

4. GENTLE CLEANSER

Thoroughly removes environmental pollutants and makeup. Softens and calms skin.

5. ULTRA NOURISHING MOISTURIZER with TriHex Technology™

Helps support the skin's natural ability to produce new, healthy elastin and collagen. Nourishes, hydrates, and helps to support skin's barrier function.

6. RESTORATIVE SKIN COMPLEX with TriHex Technology™

Luxurious formula enhances skin volume and lift, improving the appearance of sagging skin and smoothing lines and wrinkles.

7. RENEWAL RETINOL .5

Better absorption and delivery defends against visible signs of aging.

8. RESTORATIVE EYE TREATMENT with TriHex Technology™

Reduces the appearance of wrinkles, discoloration, puffiness and sagging around the eye area.



parabenfree



crueltyfree



glutenfree

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