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EVERYTHING INGREDIENTS

From Fermentation to Delivery Agents

Treating Hyperpigmentation
With 8 Key Ingredients

How To
Navigate Your Scope of Practice



Allured business media

On The Brighter Side

By Shannon Esau, CEO and National Educator of Rhonda Allison Skincare



In recent years, there has been a lot of discussion in aesthetics about the use of hydroquinone (HQ) and if excessive use actually forces melanocytes to "regroup" and increase melanin production, resulting in rebound hyperpigmentation and leaving you with even darker spots. HQ does have a place but can create concerns in higher concentrations and long term uses.

Thanks to advanced scientific processes, next-generation lighteners can now serve as effective HQ alternatives, especially since they work with a wide range of skin types and are gentle enough for more sensitive skins which typically rules out HQ. In addition to their brightening properties, they also provide antioxidant, moisture and healing support, and promote cell turnover. RA Pigmentation Solutions work with several botanical lightening agents, but we'll focus here on just two: Bellis Perennis and Alpha-Arbutin.

What They Are

Bellis Perennis (Daisy Flower). This is a specific species of European daisy native to western, central and northern Europe. An interesting fact, each petal is actually considered an individual flower and the center is a collection of many tiny yellow flowers. In skin care the extract, which is derived from the blossoms of wild daisy flowers, is considered a gentle, yet highly efficient natural skin

lightener. Its uses can be traced back to ancient Rome when it was used by surgeons for its astringent properties.

Alpha-Arbutin. This another effective natural skin lightener, is a pure water-soluble, biosynthetic active. It is commonly extracted from the leaves of Bearberry Bush, which is grown primarily in high latitudes like Scotland, Scandinavia, Russia, Alaska, Canada and Greenland. This ingredient can also be extracted from cranberry, blueberry and most types of pears, but the most common source is Bearberry.



Alpha-Arbutin is a natural plant-based derivative of HQ with tyrosinase inhibiting abilities and is typically regarded as a more stable and less sensitizing lightener than HQ. It was developed as an alternative tyrosinase inhibitor to block melanin formation without causing any of the potential side effects that have been linked to the prolonged or excessive use of HQ.

How They Work

Daisy Flower works by influencing different pathways involved in melanin formation, counteracting age spots and balancing hyperpigmentation. Before melanogenesis starts, the active in Bellis Perennis reduces endothelin (the proteins that constrict blood vessels) production in keratinocytes and blocks the binding and transfer of melanocytes. It also decreases tyrosinase synthesis and activity during melanin formation, reducing melanin production in the melanosomes. This powerful ingredient also has ROS scavenging abilities and can reverse existing pigmentation issues.

Alpha-Arbutin effectively reduces the appearance of dark spots, evens skin tone and corrects hyperpigmentation. It works by blocking epidermal melanin biosynthesis, thus inhibiting tyrosinase. In skin, discoloration forms as a result of the pigments eumelanin and phaeomelanin, which are produced in certain epidermal cells (or melanocytes).

Tyrosinase forms in these melanocytes and when activated by UV light an enzymatic chemical reaction occurs called melanogenesis, which ultimately leads to the formation of melanin. Arbutin blocks this process by inhibiting the oxidation of tyrosinase and dopa. This characteristic of Arbutin makes it a faster, more efficient skin-lightening active than any existing single lightening ingredient.

Where to Find Them

Many of the lightening and brightening formulas found in Pigmentation Solutions use these powerful botanical ingredients, a few of which include:

- SKIN BRIGHTENING CLEANSE – Radiant Glow
- BRIGHTENING SCRUB – Polish + Glow
- BRIGHTENING PIGMENT TONIC – Illuminating Toner
- NATURALÉ MEGA BRIGHTENING SERUM – Advanced Pigment Complex
- SKIN BRIGHTENING ENZYME – Depigment Treatment

On the brighter side, though HQ certainly has its place in professional aesthetics, next-generation botanical brighteners provide an amazing alternative – especially for more sensitive skins or those that may be leery of skin lightening programs.



Speak to an educator and learn more about our result-proven products, please visit *rhondaallison.com!*

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On My Radar



MAGGIE WALKER
Associate Managing Editor
mwalker@allured.com

Mother's Day Gift Guide

SKIN INC. ASSOCIATE MANAGING EDITOR MAGGIE WALKER SHARES WHAT'S ON HER MIND THIS MONTH.

May is one of my favorite months of the year. This is always the time in the midwest when we can kick the cold and gloomy weather to the curb and look toward warmer, and sunnier, horizons. On top of that, Mother's Day also happens in May, which is one of my favorite holidays. I absolutely love spoiling the maternal figures in my life. This is exactly what inspired my editor's note this month, so I am calling out the perfect skin care gifts for any mom.

1 New Moms

It's no secret that it's hard to get the recommended amount of sleep with a newborn. That's why one of the best gifts, besides some rest and relaxation, will be anything that can manage those pesky eye bags. The Sorella Apothecary Eye-Luronic Hydrating Patches are perfect for banishing the look of tired eyes.
https://sorellaapothecary.com





2 Grandmas

When it comes to aging, glycation is something that should be avoided at all costs. That's why for all the grandmas in your life try getting them the Age Less Anti-Glycation Serum from Rhonda Allison Skincare. This serum protects skin from the harmful effects of glycation while building collagen and reducing signs of cellular fatigue.
https://rhondaallison.com

3 Fur Moms

When it comes to fur moms, we love our fur babies and treat them as our children. That's why having cruelty free products are the way to go when gifting these moms. One of my favorite cruelty free brands is Éminence Organics Skincare. I especially love their Strawberry Rhubarb Hyaluronic Serum. This serum hydrates your skin and smells delightful.
https://eminenceorganics.com





4 Soccer Mom

Soccer moms spend a lot of time out in the sun. With all the running around, it is essential for them to have an easy-to-apply sunscreen on-the-go. The TiZO Mineral Stick SPF 45 is perfect for this. Its packaging makes it easy to travel with and apply, while its formulation provides chemical-free UVA/UVB protection.
https://tizoskin.com

5 Single Mom

While a multi-tasking product is great for any mom, it can be especially helpful for the mom that is on-the-go between providing and taking care of their family. That's why the Luxe Serum is a great multi-tasking product to take the guess work out of skin care. This serum acts as a moisturizer and shield to protect the skin while strengthening.
www.faceitskin.net



Images courtesy of the manufacturers

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NEW PRODUCTS

Highlighting the very latest in skin care products and equipment



Lifting & Firming Night Care

Thalgo

www.thalgo-usa.com

The night cream uses concentrated marine silicium and vitamin C to firm and tone skin, reduce wrinkles and freshen complexion with prolonged use.

Barrier Pro Collection

Colorescience

www.colorescience.com

Barrier Pro provides ultra-protective, skin barrier health achieved through intense multi-level hydration and moisture retention, a balanced microbiome and antioxidants.



Ageless Throat & Decolletage Crème

Prai Beauty

www.praibeauty.com

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A Little Luxury Hydrating Discovery Set

Image Skincare

www.imageskincare.com

The collection includes the Vital C hydrating anti-aging serum and the I Mask hydrating hydrogel sheet mask to boost hydration and improve the appearance of lines.





Skin Resurfacer

Ultimate Skin Refiner (BG Makeovers)

www.ultimateskinrefiner.com

The Skin Resurfacer is a Diamond Microdermabrasion machine with a quiet motor that offers easy to control suction levels and additional modalities.

Hummingbird Tweezers

Illumino

www.illuminolashes.com

The long and fine precision tips of the Hummingbird Tweezers are designed for isolating individual lashes while keeping the wrist in an ergonomic position.





Dewluxe for Body

Bioelements

www.pro.bioelements.com

A lightweight body oil that blends occlusive argan, squalane and halophytic sea kale for luxe hydration and dewiness, replenishing protective barrier lipids.

Retinol Serum with HA+ Complex

Kerstin Florian

www.kerstinflorian.com

The serum fuses retinol, hyaluronic acid and ashwagandha to form the brand's exclusive HA+ Complex designed to boost skin firmness, enhance tone and reduce fine lines.





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www.omorovicza.com

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www.altiorganics.com

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HAPPENINGS

Industry news from skin care facilities, suppliers and professionals

PEOPLE



SALT Chamber's CEO Leo Tonkin Reveals 'Distinctly Well' Video Podcast

Leo Tonkin, wellness innovator and CEO of SALT Chamber, has introduced a new video podcast, "Distinctly Well," providing insightful dialogue to explore the meaning of being well. Tonkin dives into the intricacies of wellness, exploring topics such as leading well, aging well, spa-ing well and corporate, travel and real estate wellness. Each episode features insightful interviews with a diverse range of guests who possess knowledge and wisdom in all things well-being. Through these in-depth conversations, Tonkin aims to uncover the what, how and why of living and being well in various facets of life.

Shani Darden Partners with MPower on Skin Care Mentorship Program



Hand & Stone Massage and Facial Spa has announced a new partnership with MPower and an exclusive sponsorship platform crafted to attract talent in the field. By forging an alliance with MPower, a first-of-its-kind hybrid massage education platform, developing an unprecedented public learning management system (LMS) and deepening the relationships with experienced massage therapy educators nationwide, the brand has demonstrated its dedication to making massage therapy an accessible and rewarding profession. Through its partnership with MPower, Hand & Stone has developed a sponsorship program crafted to attract talent in the field, offering participants a unique career proposition that directly places graduates in a spa upon completion of their studies.

BRAND ACHIEVEMENTS

CoValence Laboratories Celebrates 35th Anniversary



CoValence Laboratories is celebrating 35 years of formulating and manufacturing professional skin care products. Founder Linda Walker established the company with high standards of ethics, values and quality in our work. The company is currently a 100% employee-owned manufacturing company with an emphasis on quality and a dedication to excellence. The company stated, "We are extremely proud of our shared accomplishments and it's our honor to contribute to the success and integrity of skin care businesses around the world. Our continued commitment to producing high-quality, innovative cosmetic and OTC products at reasonable volumes is a cornerstone of our offering and will be for years to come. We look forward to working with your brand and growing together."

Circadia University Reveals Skin Specialist Program

Circadia University has announced the launch of its Skin Specialist Program designed to offer opportunities for professional development and advanced learning in skin care. The program provides skin therapists with the expertise and proficiency necessary to excel in their careers utilizing Circadia's portfolio of products. The flagship course of the Skin Specialist Program is the Chemical Peel Skin Specialist, meticulously crafted to provide a comprehensive understanding of chemical exfoliation. Led by renowned skin care expert Michael Q. Pugliese, this course comprises seven video modules that explore the intricacies of chemical peels, offering invaluable insights and practical guidance to obtain results and maintain safety.

Photos courtesy of companies featured.

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Editor's Picks

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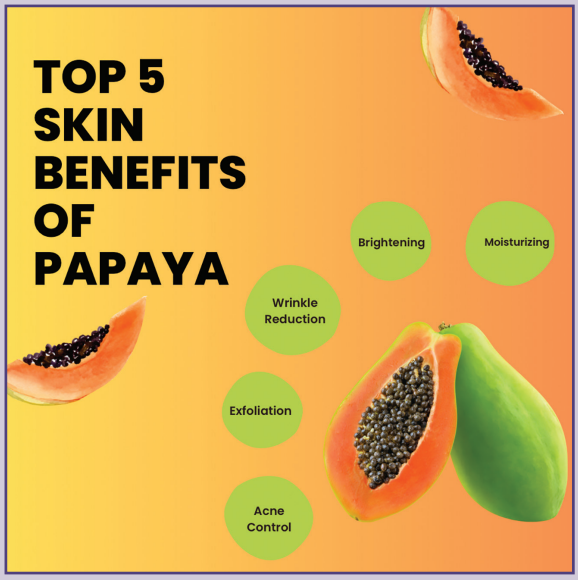

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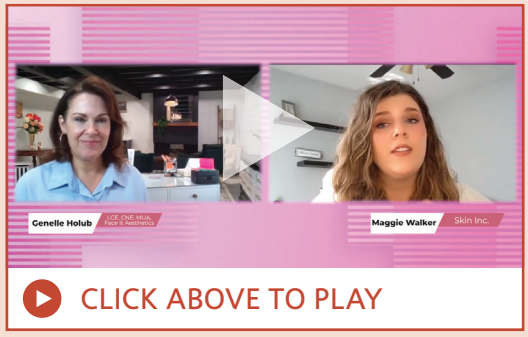
- Epidermis 101: How Clinical Care Can Change Your Spa
- **Shown Below: [VIDEO] How Neurocosmetics Combines Clean Beauty and Clinical Care**

Upcoming video interviews 7eWellness and SIV Skincare



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- The Benefits of LED & Microcurrent

Upcoming Podcast Interview with Rhonda Allison

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- How Your Voice Can Make a Difference in the Spa Industry with Richard Merill Consulting, LLC
- ***Keep an eye out for:*** Face Reality Skin Care Webcast in July

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8 Ingredients for Hyperpigmentation

By Terri Wojak, Aesthetics Exposed Education





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Hyperpigmentation is a stubborn condition that affects millions of people worldwide. There are various causes of hyperpigmentation including sun exposure, hormonal fluctuations and inflammation. The pigment presents differently depending on the cause. Sun-induced pigmentation presents small spots on the skin seen in areas commonly exposed to the sun, the forehead, upper cheeks and nose. Melasma is defined by dark patches on the skin particularly on the upper lip, forehead and cheeks.

Melasma is mainly triggered by hormones, but is exacerbated by external influences including light and heat. Post-inflammatory pigmentation can be apparent when there is inflammation, it often looks like a small dark patch surrounded by red or purple. There are several treatment options for hyperpigmentation making it difficult to determine the course of action. Educating yourself on the science behind targeted ingredients and how they work will help you when treating pigmentation.

Melanogenesis 101

To understand how ingredients for hyperpigmentation work, you need to first be knowledgeable on the melanogenesis process. Melanogenesis determines the color of our skin, hair and eyes, but is much more than just coloring. Melanogenesis is a complex symphony of cells, enzymes and molecules working together to protect us and maintain our overall health. Skin color is primarily based on the amount, quality and distribution of melanin. The number of melanocytes, or pigment-producing cells, is consistent in human skin regardless of skin color. In the basal cell layer of the epidermis, there is about one melanocyte for every 30 to 40 keratinocytes.

The melanogenesis process is regulated by internal factors including hormone signals, genetics and cytokines. External factors including sun exposure, pollution or medications can increase melanogenesis leading to hyperpigmentation disorders.

Melanogenesis Causes

Melanogenesis begins when there is a threat to the skin like UV radiation, hormone changes or inflammation. The keratinocyte releases melanocyte- stimulating hormone (MSH), which binds to a receptor on the surface of the melanocyte. The activated receptors turn on tyrosinase, an enzyme that is a key player in the production of melanin. Within the melanocyte,

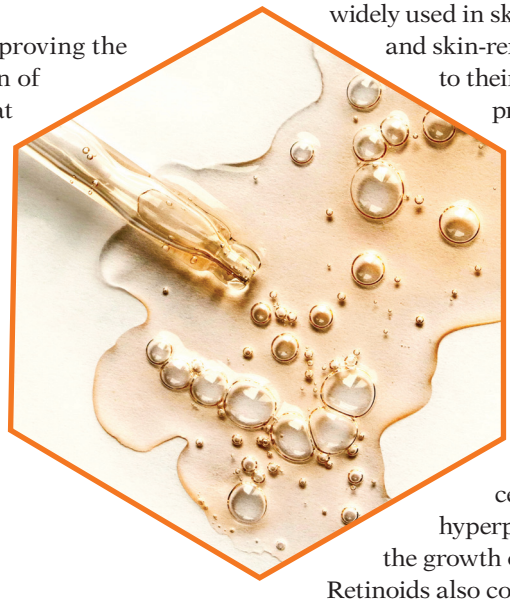
tyrosinase coverts tyrosine, an amino acid, into L-dihydroxyphenylalanine or L-DOPA. L-DOPA goes through further oxidation by tyrosinase to form dopaquinone, leading to melanin production.

The melanin produced can be eumelanin or pheomelanin. Eumelanin produces brown, black pigments while pheomelanin contributes to red and yellow tones, seen on skin type Fitzpatrick I. The pigment produced then gets packaged into melanosomes, specialized organelles that enclose the melanin. The melanosomes are transported to the keratinocytes through the dendrites, which are the extensions or arms of the melanocyte. Melanosomes are arranged to protect the nucleus from incoming threats. There are several ways to control the over-production of pigment, but consistent use of topical products is a necessity to get results.

1. Niacinamide

Niacinamide, also known as vitamin B3, has gained attention for its multiple uses including brightening the skin. It has been shown to inhibit the transfer of melanosomes from the melanocyte to the keratinocyte. Interrupting this process reduces the amount of melanin reaching the skin, resulting in skin lightening. Niacinamide is also a tyrosinase-inhibitor, meaning it interferes with the enzyme that starts the melanogenesis process.

This ingredient is most known for improving the skin's barrier. It increases the production of ceramides, which are essential lipids that maintain hydration and protection, making the skin more resilient to external stressors. Strengthening the barrier will improve the overall health of the skin which is needed to keep pigment under control. Niacinamide has antioxidant properties, which protect the skin from oxidative stress that can exacerbate pigmentation while also reducing inflammatory mediators in the skin to lessen inflammation.



2. Vitamin C

Vitamin C or ascorbic acid is well-known as a potent antioxidant. Its antioxidant properties are what make it work so well against hyperpigmentation; melanogenesis is an oxidative process. First, it is a natural sun protectant, as it neutralizes free radicals created by UV exposure that trigger pigment production. Vitamin C, like many other lighteners, also works as a tyrosinase inhibitor slowing down the initial step of pigment production.



Another way it reduces pigmentation is by reversing dopaquinone back to L-dopa, due to its superior antioxidant content. Besides brightening, vitamin C improves skin structure by promoting collagen and elastin production. Other forms of vitamin C have varying properties. It is an essential nutrient for the skin that should be a part of most daily regimens for photo-protection and to help repair existing damage.

3. Retinoids

Retinoids are derivatives of vitamin A that are widely used in skin care for their anti-aging and skin-renewing properties. In addition to their ability to stimulate collagen production and improve skin texture, retinoids have been shown to be effective in managing hyperpigmentation. Retinoids are known as skin normalizers; they normalize healthy functions of skin. They help to control the over production of melanin by regulating cell signaling. Another way in which they work is by promoting cell turnover; shedding hyperpigmented cells and promoting the growth of new, evenly pigmented cells. Retinoids also control melanin production by reducing tyrosinase activity. This is another ingredient that can provide benefits to almost all skin types.

Top: Image by Tuan Nguyen at Adobe Stock; Bottom: Image by Valentina Shilkina at Adobe Stock

4. Hydroquinone

Hydroquinone is one of the most widely studied and effective ingredients for treating hyperpigmentation. It functions primarily by inhibiting the activity of tyrosinase, the enzyme responsible for starting the production of melanin. It also interferes with the oxidation that turns L-DOPA to dopaquinone, forming pigment. There are some potential risks with the use of hydroquinone. It can irritate sensitive skin, so use of this ingredient in high concentrations is not recommended.

Potential carcinogenic properties have caused this ingredient to be banned in Europe and other countries. There is also a condition called exogenous ochronosis, where the skin develops a blue-black pigmentation and can result in thickening and hardening of the skin. This is most often due to prolonged use at high concentrations. The over-use of hydroquinone can also cause pigment bounce-back, where the pigment returns darker than before. The benefits of using this ingredient should be weighed against the possible risks.

5. Tranexamic Acid

Tranexamic acid is a synthetic derivative of the amino acid lysine that has been used orally to treat conditions such as heavy menstrual bleeding and melasma. More recently, topical formulations of tranexamic acid have emerged as promising treatments for hyperpigmentation. Tranexamic acid works differently than most other lightening agents. It functions by inhibiting the production of plasmin, an enzyme involved in the breakdown of fibrin in blood clots. Plasmin activation has been linked to the production of melanin, particularly in response to UV exposure and inflammation.

Tranexamic acid is anti-inflammatory, also preventing the activation of melanocytes. It has also been shown to improve texture, promote collagen synthesis, and increase microcirculation making it a great option for those concerned with signs of aging as well.

6. Kojic Acid



Kojic acid is a naturally occurring compound derived from various fungi species. Similar to other lighteners, kojic acid inhibits tyrosinase activity, thereby reducing melanin production. It also exhibits antioxidant properties, which help protect the skin from oxidative stress and prevent



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further pigmentation. Kojic acid has mild exfoliating properties; it sheds pigmented cells revealing a more even skin tone. Studies have shown that kojic acid can effectively lighten hyperpigmented areas when used consistently.



7. Arbutin

Arbutin is one of the most widely used skin lighteners worldwide. It is a naturally occurring compound found in the dried leaves of various plants including bearberry, blueberry and cranberry. Arbutin, like the other lighteners, is a tyrosinase inhibitor. It also interferes with the oxidation of L-DOPA to dopaquinone, which is where the melanin production takes place. There are some studies that suggest arbutin also fades existing pigmentation by breaking down melanosomes. It has antioxidant and anti-inflammatory properties to protect the skin and pairs well with vitamin C.

8. Azelaic Acid

Azelaic acid is a dicarboxylic acid naturally found in wheat, rye, and barley. It controls hyperpigmentation through multiple mechanisms. First, azelaic acid is anti-inflammatory, which could help prevent pigment associated with inflammation. It is also a tyrosinase inhibitor, reducing melanin production. Azelaic acid is particularly beneficial for those with acne-related hyperpigmentation due to its antimicrobial effects that help control acne breakouts.



Ingredient Power

The science behind ingredients for hyperpigmentation is complex, with various ingredients targeting different aspects of melanin production and skin pigmentation. From tyrosinase inhibitors to antioxidants and exfoliating agents, these ingredients offer a range of options for those looking to address hyperpigmentation and achieve a more even complexion. This is just a brief list of the many beneficial pigment lightening ingredients available.

When recommending products to those with hyperpigmentation, it is important that they are on a home regimen consisting of vitamin C, a retinoid, a combination of lighteners and sunscreen. When incorporated into a comprehensive skin care regimen and used consistently over time, these ingredients can help improve the appearance of hyperpigmented areas and promote overall skin health and radiance.

ADDITIONAL RESOURCES:

1. *https://pubmed.ncbi.nlm.nih.gov/19608057/*
2. *https://academicstrive.com/PSARJ/PSARJ180020.pdf*
3. *https://pubmed.ncbi.nlm.nih.gov/32720446/*
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Terri Wojak is a highly sought-after professional with 30 years of experience in the aesthetic industry. She is a respected authority on skin care in a medical setting, education and business development on multiple levels. Terri is an international speaker and has built over 50 individual courses based on skin care, and more than 100 articles by Wojak have appeared in a multitude of industry magazines. She has also published two books, "Aesthetics Exposed: Mastering Skin Care in a Medical Setting & Beyond" and "Mastering Medical Esthetics." Terri now runs her own education company, Aesthetics Exposed Education.

Delivering the Goods: Delivery Mechanisms of Skin Care Ingredients

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Fermentation For the Face

By Janel Luu, Le Mieux



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One of the goals of skin care is to help people put their "best face forward." However, recent surveys have shown that 60-70% of women and 50-60% of men claim some degree of skin sensitivity such as stinging, burning and tingling, at levels ranging from "very" to "slightly." In fact, over the past 20 years, researchers have concluded that over half the general population consists of people with sensitive skin.[1]

Why so many? The reason is probably because the face is typically exposed to a greater degree to significant changes in the weather, environmental stressors, high-energy light from tech devices and more. The increasing number of individuals suffering from skin sensitivity provides challenges in the skin care realm. How can a technologically advanced, healthy aging skin care product transform skin without triggering skin irritation?

Skin care formulators must balance potency of active ingredients with compatibility to skin. The goal is to boost bioavailability and effectiveness, which will provide visible results without triggering skin irritation.

The solution? Biofermentation. One way to achieve this balance is by incorporating biofermented ingredients into skin care.

Enhanced Absorption & Benefits

In short, fermentation is a natural metabolic process where microorganisms like bacteria or yeast break down organic substances into simpler compounds. Initially used as a means to preserve food, this age-old technique has found its way into technological advances in the skin care world due to fermentation's ability to enhance the absorbability, potency and efficacy of key ingredients.

Fermentation is triggered when yeast or bacteria break down an ingredient, like cracking a jigsaw puzzle into little pieces. In this process, yeast or bacteria produce smaller particles, such as lactic acid, kojic acid, amino acids, enzymes and omega fatty acids. In skin care, these smaller compounds have a high biocompatibility with skin. They absorb into skin more effectively and result in maximized skin benefits, with a minimized risk of skin irritation.

Carefully formulated skin care products that contain fermented ingredients can benefit almost any skin type or condition, and can be especially helpful with individuals who are challenged with inflammatory skin conditions such as rosacea, acne or eczema. The following are benefits that can impact a wide range of clients.





From Left to Right: Image by Yulia Panova at Adobe Stock; Image by blackday at Adobe Stock; Image by Anna Fedorova at Adobe Stock

Gentle Exfoliation

Certain fermented ingredients, like those derived from fruits, offer natural exfoliation. This gentle removal of dead skin cells promotes cell turnover, revealing a smoother and more radiant complexion.

Skin Soothing

Certain fermented ingredients, such as chamomile and licorice root, possess enhanced anti-inflammatory properties, making them invaluable for calming sensitive, sensitized and irritated skin.

Solution For Blemish-Prone Skin

Fermented topical ingredients in skin care can soothe sensitive, sensitized, and blemish-prone skin. By encouraging the appropriate pH balance, biofermentation in skin care can improve hydration and minimize irritation that can sometimes occur due to harsh acne products.

Support For Dry Skin

Formulations with fermented ingredients also help maintain a more stable microbiome on the surface of the skin. A balanced microbiome supports skin's natural protective barrier, helps alleviate dryness or excess oiliness and minimizes the risk of inflammation. This support is crucial for skin health and resilience against environmental aggressors.

Defense From Outside Stressors

A well-balanced, anti-aging skin care formula containing fermented ingredients can help protect against free radical damage and signs of oxidative and environmental stressors, all of which can lead to visible signs of aging, like wrinkles, sagging and dark spots.

Anti-Aging Team Players

Fermented ingredients that are included in anti-aging skin care can increase the potency of vitamins, antioxidants, peptides, and growth factors, which will help brighten dull skin, even out skin tone, inhibit melanin synthesis, target dark spots, and encourage collagen synthesis, all with minimal risk of skin irritation.

Heroes

The following fermented skin care ingredients can be found on ingredient lists of highly effective toners, masks, serums, creams, and other formulations treating and alleviating a wide range of skin conditions and concerns.

Red Ginseng. Ginseng is a powerhouse in traditional Asian medicine. Studies have shown that fermented red ginseng has a greater concentration of antioxidants and is highly effective for brightening, reducing toxins, and reducing fine lines and wrinkles. Red ginseng ferment also has high levels of antioxidants and polyphenols, which improve microcirculation and reduce inflammation.

Black Tea. Fermented black tea, also known as kombucha, is an ideal ingredient in formulations that relieve inflammation and improve the skin barrier. Like other antioxidants, kombucha works as a type of "shield" to help defend skin from damage due to environmental stressors.

Licorice Root. Licorice root has long been valued for its anti-inflammatory and skin-soothing properties. Fermentation amplifies these benefits, making licorice root an excellent choice for calming sensitive skin and addressing issues like redness and irritation.



Minerals. Some anti-aging products feature mineral extracts that are fermented in yeast, such as saccharomyces copper ferment, zinc ferment, magnesium ferment and manganese ferment. The fermentation process converts the minerals into a form that can absorb better into the skin to encourage collagen synthesis, enhance tissue repair, and reduce signs of environmental damage, such as wrinkles, sagging and hyperpigmentation.

Argan Oil. Fermentation increases the bioavailability of essential fatty acids, antioxidants, and vitamins in argan oil to help moisturize and condition mature skin. Fermented argan oil is also beneficial for the scalp when used in hair treatments.

Radish Root. Radish root ferment, derived from bacteria traditionally used in making kimchi, moisturizes skin and helps relieve inflammation, while helping protect skin from free radical damage.

Rice Bran. Renowned for its brightening properties, fermented rice extract is a multi-tasker in skin care formulations. The fermentation process enhances the production of kojic acid, promoting an even skin tone, inhibiting melanin synthesis and reducing the appearance of dark spots. Fermented rice boasts over a dozen amino acids to moisturize and soothe sensitive, sensitized or blemish-prone skin.

Soy. Soy is rich in antioxidants and amino acids. Through fermentation, these components become more bioavailable, helping nourish and rejuvenate the skin. Fermented soy is particularly effective in promoting collagen production, aiding in firmness and elasticity and can also assist in skin brightening.

Seaweed. Seaweed is a great source of minerals, amino acids and antioxidants. Fermentation enhances the absorption of these nutrients, delivering a surge of hydration to the skin. This marine-inspired ingredient not only moisturizes, but also helps maintain skin elasticity and firmness.

Chamomile. Chamomile, well-known for its calming properties, becomes an even more effective remedy for sensitive skin when fermented. The anti-inflammatory benefits are heightened, offering relief to skin prone to redness and irritation.

Ferm It Up

Ever-increasing levels of significant changes in the weather, environmental stressors, high-energy light from tech devices and even daily life stressors can wreak havoc on the skin. As a result, consumers need treatments that benefit skin without causing inflammation. It's also important to keep in mind that over-exfoliating or over-using peels might lead to skin sensitization and chronic inflammation. Skin needs balance, and fermented ingredients can help. As the beauty industry continues to evolve, products that incorporate biofermented ingredients can help maximize the power of in-spa services, increase the benefits of homecare and keep satisfied clients coming back for more.

The bottom line is that embracing the power of fermentation is one of the many keys to unlocking a radiant and healthy complexion. Think of it as "beauty alchemy;" nature in sync with skin.

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Founder and CEO of Le Mieux Cosmetics and PurErb, **Janel Luu** has over 40 years of experience in the beauty industry as an educator, researcher and formulator. She has taught over 40,000 skin care professionals and physicians on topics ranging from the latest anti-aging cellular technology to centuries-old meridian gua sha techniques.

NOW TRENDING
SKIN STREAMING



Listen up esties! Here is what's buzzing in the spa industry.

What You Should Know

As the beauty industry heads towards a more simplistic and natural direction, we are finding that many beauty consumers are interested in minimalistic skin care routines; enter skin streaming. This trend that has been gaining traction from social media platforms like TikTok, simplifies daily skin care products for clean and effective results. By definition, skin streaming involves using three to four products that effectively address skin care needs. This can include a cleanser, multi-purpose serum, moisturizer and sunscreen.1 This method makes retail product recommendations for the esthetician and homecare between treatments for the client simple.

Benefits

There are many skin benefits of the skin streaming trend, with the biggest being a strengthened skin barrier. Because the skin is not being treated with many skin care products, there is less of a chance for ingredient interactions to cause irritation. This also means that the three or four products being used have more of a chance for deep product penetration. As estheticians, we know that recommending a 10-step skin care routine can be overwhelming for clients who are new to using home care products. Skin streaming not only effectively treats the skin, but creates a simple routine that your client is more likely to complete in-between services; a win-win for both sides.

Tips

- Recommend skin streaming skin care routines for your clients with sensitive skin.
- Recommend multi-beneficial skin care products like dual serums that include peptides or antioxidants, or moisturizers that provide sun protection.
- Set up a skin streaming product package that contains all the products your client would need in their routine for an easy retail sale.

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1. *https://coveteur.com/skin-streaming-trend*

(All websites accessed Mar. 28, 2024).

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9 Tips to Master Retail Marketing

By Lyn Falk, RetailWorks



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Spas today are always looking for other forms of revenue, and retail products can often be a sure bet. Below are the top tips to creating a successful retail department in your spa.

1. Determine Square Footage

How much space can you devote to retail? If you only have a few feet along a wall, you're not really in retail, you're most likely selling a few of the products you use in your services. Designate at least eight feet of wall space and place at least three fixtures on the floor. Don't clutter your reception, check-in, or out counters with products. Perhaps a small container of samples would be appropriate. Finally, think about where you will store inventory (e.g. on the floor, in cabinetry, or in a back room).

2. Find the Right Products Lines

Spend time thinking about the types of products you want to sell. Of course, there are the items you are currently using in your services (ie: oils, lotions, soaps and aromas), but what other lines would work well with them? For instance, other beauty products, luxury robes, slippers, socks, sleepwear and eye masks. What about items made by local artists, jewelers and designers? Do they make sense in your spa?

3. Determine the Right Price Points

What is the quality of the product lines you will sell, and associated price points? Are they acceptable to your target market? Are you moving products every day? Is it easy for your staff to sell them? You can certainly carry a few higher-end products with some medium-priced lines, and some medium-priced products with lower-priced lines, but try to avoid a mix of all three, as it dilutes the retail image you are trying to convey. Don't confuse the customer!

4. Decide the Proper Quantity



How many of each line do you want to have on your selling floor? If you're going with a lower price point, then you can put more inventory on the floor. The higher the price point, the fewer items you want out. Higher priced lines also equate to higher service, where information needs to be provided to help make the sale, whether through signage or staff. Not enough inventory, and you're not making a retail statement. Reaching "critical mass" is critical to sustaining a successful retail department.

Finally, do the vendors have minimums you have to meet? Can you obtain testers and small samples for giveaways? It's nice to have a small selection of testers inside your spa on a table between lounge chairs where clients sit in-between services.

5. Consider Product Packaging

Is the packaging attractive and easy to merchandise? Is there adequate information provided on the label and is it easy to read? Much like many judge a book by its cover, the same can go for packaging.



6. Coordinate Your Fixtures

It's important to shop for fixtures that best showcase your spa's brand and your product lines. Is that wall shelving? Nesting tables? Pedestals? Double-sided shelving units? Locked, illuminated showcases? It could be a variety of types, However, they should all coordinate in color and finish. This way, they give the impression the retail area was designed to support your brand and the merchandise, and not distract from the products they hold.

Be careful with vendor-provided fixtures. They are often provided free of charge, but you should only accept them if they are a popular brand, it is a well-designed fixture, holds a fair amount of product, and the style works well with your other fixtures. Try not to have more than 30% of your fixtures be vendor-provided. Finally, can the fixtures you select be easily moved around when you want to change up your floor plan?

7. Influence Clients Through Product Presentation

How you place the merchandise on the fixtures can also make or break the look of a retail department. In simple terms, merchandising is "good housekeeping." It's presenting your products on fixtures in an organized fashion. The goal is to present the products in such a way that they help customers quickly see and interpret the merchandise, and then be influenced to purchase something.

Consumers tend to read merchandise on fixtures from left to right, top to bottom. By grouping merchandise on a fixture or wall according to style, size, color and type, you can create a visual presentation that is easy to interpret.

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The eyes are drawn to items that are alike, so repeating a shape, size or color makes for a visually attractive fixture. This is why filling a fixture to the point of critical mass is important. The way you merchandise your fixtures attracts attention and says a lot about your inventory and merchandising capabilities.

A basic rule of thumb is to place smaller items at the top of the fixture and graduate down in size, so the largest (and heaviest) items are at the bottom. It proves we resonate with "composition," which is when the basic principles of design are used properly. Another basic rule is to rotate your merchandise periodically. Placing products in different locations can add new life to older merchandise.

8. Decorate Beyond the Retail Shelves

Don't forget to place a mirror on a wall. Regardless of the products you are selling, people like to look at themselves!

Vendor signs, product benefit signs, and promotional signs can all be ignored by your customers if they are not done well. Putting "sign design guidelines" into place can help train your customers to read the signs you want them to read! This means, all your sale signs look the same, all your category signs look the same, etc. It's all about communicating your message quickly in a consistent manner. Well-designed signs can do a lot of "silent selling" for you.

9. Don't Underestimate Lighting

Don't underestimate the power of highlighting retail displays. First, it's important to have all the fixtures bathed in soft, ambient light, and then highlight shelf displays or showcase displays three times brighter than the surrounding light. This accent light is extremely effective in attracting attention and getting customers to move throughout the retail area.

Sell, Sell, Sell

If you have the extra space, you can expand your current footprint, or are thinking of moving into a larger space, think about creating a small retail store. It's a great way to keep clients who are waiting for their service occupied. After they are done with their service, they're feeling so good and relaxed, they're in the mood to shop and purchase!



Author, award-winning designer and international speaker, **Lyn Falk**, has earned praise for her holistic, innovative, results-driven design philosophy. She has devoted over 35 years to helping retailers and business owners across the country define their brand, tell their story, and create memorable customer experiences. Her designs are founded upon consumer behavior, environmental psychology and neuromarketing research. Falk started Retailworks, Inc. in1995 and continues to serve as President and Senior Designer. To reach Lyn, email her at: lfalk@retailworksinc.com.



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5. **Mandelic Brightening Serum**
   Skin Script Skin Care
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6. **Lemon Lightening Serum**
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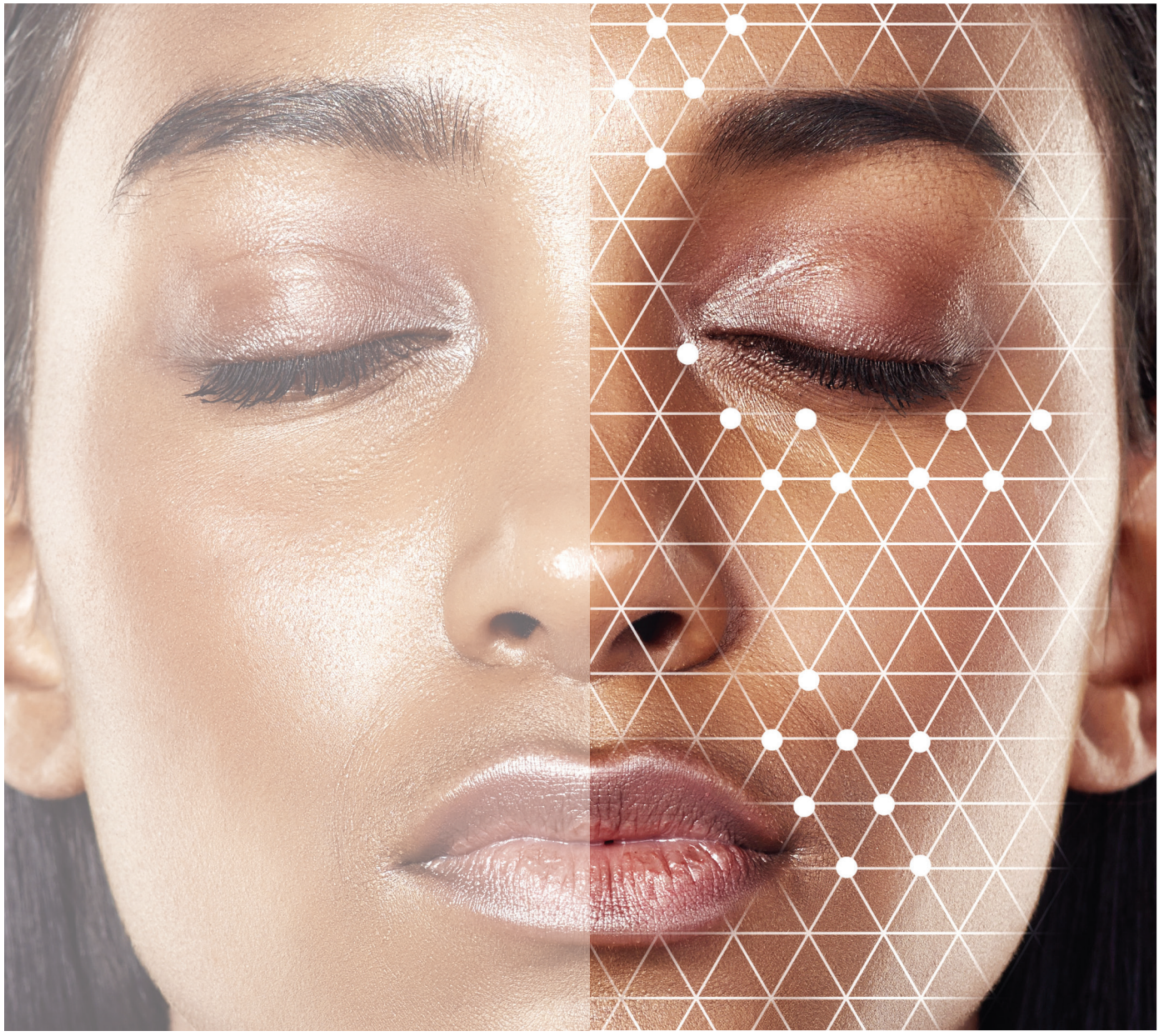

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2024 Hyperpigmentation Trends, Technology and Products

By Summer Vasilas, Waxing the City

In the ever-changing landscape of the beauty industry, addressing hyperpigmentation has become a focal point. Innovative solutions are emerging across various sectors of beauty to combat hyperpigmentation, including the waxing industry. As clients seek solutions, waxing salons are stepping up to offer the best care to treat and prevent hyperpigmentation. In 2024, there will be a host of new topical products, trends and technological innovations in place to target pigmentation quickly and effectively.

Hyperpigmentation Products

While hyperpigmentation products are always advancing, there are some we can expect to see gain ample popularity in 2024.

Brightening Masks & Lightening Agents

Advancements in topical formulations have led to the development of products containing ingredients known for brightening and lightening. When it comes to brightening and hydrating masks, these products are gaining popularity when containing ingredients like vitamin C, hyaluronic acid and botanical extracts because they hydrate, protect and repair the skin.

For lightening, ingredients like vitamin C, tranexamic acid, alpha-arbutin, niacinamide and licorice extract are on the rise due to the positive impact they make on melanin production and evening out skin tone. While products designed to treat hyperpigmentation are certainly helpful and should be used in conjunction with brightening services, they typically take longer to show results. For best results, encourage clients to use these at-home, topical products in tandem with LED brightening and laser therapies.

Hybrid Products

An increasing number of waxing brands are exploring hybrid products to effectively remove hair while providing skin care benefits. Not only do hybrid products include ingredients that gently correct uneven tone and





discoloration, and fade hyperpigmentation from the body, but they help to preserve clients' natural skin tones. These products are gaining traction because they involve fewer steps. Rather than layering numerous products, hybrid products give a one-two punch with fewer steps.

White Cast Free Sunscreens

Sun exposure is the main trigger primarily driving the hyperpigmentation market. We anticipate an uptick in client demand for high-quality sunscreen products in conjunction with hyperpigmentation treatments, especially those with minimal white cast. SPF has come a long way in recent years, and now there's a wide range of zinc-based formulas available in clean and organic options offering ample coverage and a load of other skin care benefits. As an esthetician, recommending the most suitable sun protection products is about finding out what works for your clients' skin and lifestyle.

Trends

You will want to keep an eye on these growing hyperpigmentation trends this year.

Ingredient Upgrades to Post-Waxing Treatments

We can expect hyperpigmentation prevention to play a bigger role in post-wax treatments this year. Reimagined post-waxing skin care routines may now encompass products with ingredients like chamomile, aloe vera or vitamin C. These will not only ward off hyperpigmentation, but will soothe the skin and reduce inflammation. We also anticipate preventative serums will be on the rise. Many salons are also offering inclusive wax formulations suitable for sensitive skin and different pigmentation levels.

Hyperpigmentation Post-Care Treatments

In addition to post-waxing treatments, salons offering hyperpigmentation treatments, like LED light or laser therapies, are also revamping their post-care techniques. This is because post-care treatments are just as important as the hyperpigmentation treatment itself to maintain results. We believe hyperpigmentation post-care treatments this year will involve the use of gentle chemical exfoliants, such as those containing alpha or beta hydroxy acids, as they aid in cell turnover and help minimize hyperpigmentation. These products have specialized formulations, catering to different skin tones and can help prevent or alleviate hyperpigmentation.

Customization & Personalization

No matter the service, waxing or hyperpigmentation, salons are increasingly recognizing the importance of inclusive beauty standards. Now more than ever, estheticians are providing personalized pre-treatment consultations to understand their clients' skin types, concerns and potential hyperpigmentation risks. Before any treatment, it's essential to determine the most suitable approach for clients' specific skin concerns. Waxing is not "one size fits all." Salons must be willing to offer options that cater to customers' specific skin types, as individual responses to treatments may vary. The emphasis is not only on effective hair removal, but also on minimizing potential side effects, such as hyperpigmentation. Tailoring the waxing experience not only strives to give clients the best results, but is an effective way to increase business.

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Ingredient Transparency

Beauty begins with truth. For clients looking to treat hyperpigmentation, waxing salons prioritizing natural and skin-friendly ingredients are gaining traction. This is because there is trust built around using clean and organic products. Being able to pronounce the ingredients used in hyperpigmentation products is key – skin is the body's largest organ and salons using cleaner products are taking a more natural approach to beauty regimens. The most effective products can be those with advanced proprietary blends of natural and organic ingredients that work to remove dark spots and discoloration over time.

Technology

Brightening LED Light Therapy

Brightening is essentially the next step after waxing and hair removal to get clients their ideal skin. This type of therapy can treat any area of the skin, from face to bikini line. The versatility of LED light therapy is why waxing studios are beginning to incorporate LED light therapy into hyperpigmentation treatments, as it has shown promise in reducing inflammation and promoting overall skin rejuvenation. Not only do they help fade hyperpigmentation, but reveal brighter, more even skin. Brightening treatments are effective after the first session, but require regular upkeep to maintain results. Sessions are approximately 15-30 minutes long, depending on how large the area is and the clients' skin. Waxing salons can offer package or membership deals for clients to save money, as routine therapy is needed to maximize and maintain results. Using this technique over time can help create long-lasting results.



Laser Therapy

In 2024, there will be an emerging popularity of non-invasive energy-based devices, such as fractional lasers and picosecond lasers for treating hyperpigmentation. They are best used to combat post-inflammatory hyperpigmentation. These lasers can break down pigmented lesions, stimulating collagen production and promoting skin renewal. By delivering controlled energy to the skin, laser treatments gradually work to improve skin texture and tone. One of the benefits of incorporating laser therapy into hyperpigmentation treatments is because of its inclusivity. Laser therapy works on every level of the Fitzpatrick scale, making it customizable based on skin tones and sensitivity.

A Pulse on Pigmentation

Specialty treatment categories, like hyperpigmentation, are new revenue opportunities many waxing studios are exploring nationwide. In 2024, we expect salons to evolve to be one-stop-shops to meet the demands of a diverse clientele seeking not only effective hair removal, but also hyperpigmentation solutions. To keep a competitive edge and meet demand, now is the time for salons to invest or revamp their hyperpigmentation treatments. By capitalizing on trends and incorporating advanced technology into their services, these establishments are contributing to a beauty industry that embraces inclusivity and addresses individual skin care needs. The industry's evolution marks a significant stride towards a more comprehensive and personalized approach to beauty and skin care.



Summer Vasilas is Co-Founder & Director of Education and Training of Waxing the City, a 150-unit franchise devoted to the art of waxing, catering to both women and men and a top ranked franchise 500 company 10 years in a row. She has 25+ years of experience in the beauty industry and has been a licensed esthetician since 1999.

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Step 2. Spray the Balancing Tonic onto a tissue or cotton pad and then apply it to the entire face, neck and décolleté.

Step 3. Perform skin analysis.

Step 4. In a dish, mix a teaspoon of the Zyme Peel Powder with approximately 1-2 teaspoons of the Zyme Peel Activator, to create a creamy paste. Apply evenly across the face and neck with a fan brush, keeping the enzymes active with rolling steam. Use warm towel wrap or cotton squares to clean the mask off. Optional: Incorporate a soft rotary brush after 7-8 min. to enhance exfoliation while under steam.

Step 5. Spray Balancing Tonic on a cotton pad and apply it to the skin to restore the skin's pH.

Step 6. Perform a thorough facial massage with the Hydra Calm Facial Oil or Skin Nourishing Balm, then tissue off excess.

Step 7. Mix 1 teaspoon of Vitamin C Brightening Powder with enough Vitamin C Brightening Activator to create a creamy paste and apply with a fan brush. Leave on for 7-10 min. Use warm towel wrap or cotton squares to remove.

Step 8. Apply C Defense Serum to your hands and then massage into the client's face, neck and décolleté. Allow to absorb.

Step 9. Finish the facial with Collagen Eye Defense, Ceramide Daily Cream, and Aroma Matte Day Cream SPF 30 or Botanical Soothing Cream SPF 30.

Step 10. As an alternative to the finishing hydration products, apply the Vitamin A Micro Peel after Step 7. Instruct clients to remove it at home after 4-6 hours.

EXFOLIATING TREATMENT PROTOCOL

BION SKINCARE PRODUCTS

This exfoliation treatment utilizes the brightening effects of mandelic acid.

Step 1. Cleanse the skin with Cleanser for Normal Skin and rinse off.

Step 2. Do a second cleanser with Glycolic Cleanser and rinse off.

Step 3. Perform a light massage using Nutrient Enriched Face & Body Oil or Hydrating Gelee Mask. Remove excess with a warm towel or wet gauze.

Step 4. Use a Mandelic 5% Toner Pad before applying the chemical peel to make sure the skin is prepped and all oil is removed from the skin.

Step 5. Optional Exfoliation for more aggressive treatment: Apply the enzyme mask of choice and let steam for 5-10 min. Remove with a warm towel. Apply Mandelic Acid Exfoliator-30%. Start at the forehead and chin area, moving to the cheek and nose area. Leave exfoliator on the skin for no longer than 2-7 min. This can be layered to obtain more intense results. Add a layer every 1-2 min. Do not exceed 3 layers and do not exceed 7 min. total.

Click here to continue reading Steps 6-10

ADDITIONAL PROTOCOLS FROM:

BIO FRANCE LAB
DMK SKINCARE
ENVIRON
ILIKE ORGANIC SKIN CARE

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INDUSTRY INPUT
INGREDIENTS

ADVICE FOR INGREDIENTS IN YOUR SPA.

INGREDIENT 1: OXYGEN

We are learning so much these days about the tie between oxygen and the skin, and I am excited for new ingredient breakthroughs that focus on oxygen. Just like all living tissues in our body, the skin requires oxygen to carry out essential cellular functions including respiration, pore purification, tissue repair, barrier function, cellular turnover, and the production of collagen and elastin. Triple oxygenating ingredient blends of stabilized hydrogen peroxide, saccharomyces lysate and kombu sea kelp extract work together revive cells, purify pores and nourish the skin.

—Dawn Gantt, Regional Business and Education Manager of Bioelements

INGREDIENT 2: SEAWEED

There are over 20,000 species of seaweed worldwide and seaweed is one of the most complete superfoods rich in vitamins, minerals and amino acids. Each species of seaweed has very different benefits. For example, Laminaria digitata seaweed is nutrient rich with 12 vitamins, 18 amino acids and 42 trace elements to deeply hydrate and nourish skin. Ulva lactuca seaweed contains biopeptides to help firm and brighten the appearance of the skin, and Saccharina latissima helps reduce the appearance of oil. When choosing product formulations with a natural ingredient such as seaweed, it's important to note that the efficacy can vary widely based on its species, the way it's grown, harvested and processed. Most manufacturers of seaweed-based products use the oven-drying method which yields an ingredient that contains trace elements, but may be deficient in vitamins and amino acids that are heat sensitive.

—Lydia Sarfati, Founder and CEO, Repêchage, President of CIDESCO Section USA

Click here to keep reading top tips from industry experts.

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Exfoliating Treatment Protocol

(Continued from Page 36)

BION SKINCARE PRODUCTS

This exfoliation treatment utilizes the brightening effects of mandelic acid.

Step 6. Optional: Perform extractions. Cleanse the skin with Refreshing Toner (cooling and antiseptic).

Step 7. Apply Hydrating Gelee Mask to cool/soothe the skin or Nutrient Essentials Mask. Leave it on for 5-10 min. Remove with a cool towel.

Step 8. Apply Oil Free Moisturizing Gel or Bio-Essence Nighttime Calcium Complex.

Step 9. Optional Step for intense cell renewal and repair: Mix a Topical Calcium Capsule with Titanium Dioxide SPF 35. Open capsule. Squeeze contents out. Mix in your hand 50/50 with Titanium Dioxide SPF 35. Make sure the product is mixed well before applying it to the skin. Pat onto the client's skin and then massage it into the skin.

Step 10. Apply Titanium Dioxide SPF 35 or Tinted Mineral SPF 35.

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Brightening Facial Protocol

BIO FRANCE LAB

This brigthening protocol cleanses and refreshes skin for a brightened glow.

Step 1. Wet the face with warm water first. Apply Bright Plus Facial Cleanser gently to the face. Wash it off using warm water. Continue to cleanse with a 5 min. steam.

Step 2. Apply warm water to the face. Apply Rice Exfo-Scrub Facial Exfoliator in circular motion moving upward. After the scrub process is complete, remove using warm water and steamer. Make certain the scrub has been thoroughly removed and the face is dry.

Optional: If you have it, apply the ultra-lightening bright foaming mask on the skin, then spray warm water and massage it for 1 min. and leave it under the steamer for 3 min., then wash it out.

Step 3. Mix Enzyme Whitening Mask powder with water and apply with a fan brush. Let sit the mask for 5 to 10 min. under the steam and then wash it off.

Step 4. Generously apply the Skin Corrector Facial Toner. While the toner is drying go ahead and start the eye treatment. Optional: Apply the Ultra-lightening Bright facial serum and the Age Defense facial serum all over the face.

Step 5. Begin the Duo Eye Treatment. Apply the eye gel first, and then the eye cream both under and above the eye lids. This will be sealed into the skin with the peel off mask.

Step 6. Use two tablesppons of Eye Peel Off Mask powder and three tablespoons of water. Mix the peel off mask vigorously until the mask is slightly more liquid than peanut butter. Apply the mask over both eyes.

Step 7. Apply a few drops of Skin Re-Cell Facial oil all over the face and massage it in the skin.

Step 8. Apply Smooth Ultra-lightening Bright Facial Cream gently into the face using upward and outward movements. Avoid direct contact with eyes. Apply also to the chest to lift and moisturize the skin.

Illuminate Hydrating Brightening Treatment

DANNÉ MONTAGUE-KING

A brightening facial treatment designed to plump, hydrate, and even out skin tone.

Step 1. Using a DMK bowl and brush, combine Deep Pore, Milk Cleanser, or a combination of the two with water until a soapy mixture forms. Cleanse the face, neck, and décolleté with circular brushstrokes or gloved hands, gently massaging into areas of impaction. Rinse thoroughly or remove with a warm towel and pat dry.

Step 2. Saturate a cotton pad and apply Epitoxyl solution to the face, neck, and décolleté. Let sit for 3 min.

Step 3. Remove thoroughly with warm towels and wipe any residue with damp 4 x 4s.

Step 4. Choose one of the formula combinations below. Mix equal proportions (1 tsp) of each formula in a small bowl with a cotton tip.

1. Micro Peel and Super Bright

2. Pro Alpha #1 and Super Bright

3. Pro Alpha #1, Pro Alpha #2 and Super Bright

Step 5. Apply the solution to the area being treated for about 5 min. This can be full face or a spot treatment. After 5 min, thoroughly remove the solution with a warm towel. Optional: If your client has thickened or mature skin, occlude with cling film, hot towels and a DMK Hot Pack.

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Step 6. Pre-treat the full face or spot treat with Melanotech Drops. Shield the client's eyes and nose, dispense Fibromax C, and gently press it into the skin. Allow a few seconds to absorb.

Step 7. In a DMK bowl, combine two heaping tablespoons Enzyme Masque #1 with Aqua D'Herb. Whip with a DMK Fan Brush to create a fluffy consistency and mix until lumps disappear; the final product should resemble cake batter and run off the brush.

Step 8. Start at the base of the décolleté using upward and outward strokes, or a 'V' formation. Cover the entire neck and bring the brush up behind the ears. Divide the face in half, making strokes upwards and outwards on the jawline and moving up the cheek to just under the eye. Complete the circle by taking the brush up on the forehead and down on the nose.

Step 9. Leave the mask on for 45 min. Then soften the mask by applying a hot, moist towel.

Step 10. Remove the mask by mixing warm water and cleanser into the skin. Use circular strokes and massage with water to soften further. Use a light touch, as pressing the hardened mask into the client's skin may pinch. Keep a warm, wet towel on the chest area while working on the face, and vice versa, to make removal easier.

Step 11. Repeat until the mask is completely removed. Feel the skin with your fingers for any rough patches indicating leftover mask. Use damp 4 x 4s to clear any residue.

Step 12. Complete the protocol with a Transepidermal Finishing Treatment.

Essential Radiance Reveal

ENVIRON

This brightening facial utilizes sonophoresis for skin radiance.

Step 1. Massage Pre-Cleansing Oil into skin.
Step 2. Massage Micro-Exfoliator over pre-cleanser for 5 min. and remove with a compress.
Step 3. Apply Eye Make-Up Remover onto cotton wool and remove eye makeup.
Step 4. Cleanse with Cleasning Gel and remove with a compress.
Step 5. Apply Toner Forte onto cotton wool and tone.
Step 6. Apply Gel Micro-Exfoliator as a secondary exfoliator for an additional 3–5 min. with steam.
Step 7. Advanced option: Do Cosmetic Needling for 3 min. prior to serum application.
Step 8. Apply Derma-Lac Lotion or Mela-Fade Serum System and treat each focus area(s) with the sonophoresis probe (SONO only or Dual Tech "+") for the required time (15 sec. per position), before massaging any remaining serum into the skin.
Step 9. Apply the selected vitamin A serum to the entire face and neck.
Step 10. Apply the Alginate Masque/Haize Gauze with Conductive Gel to do field iontophoresis "-" for 20 min.
Step 11. Apply Massage Oil to arms/hands/feet and do a relaxing massage during field iontophoresis.
Step 12. Remove the Alginate Masque/Haize Gauze and massage any remaining serum into the skin.
Step 13. Conclude with Essential Moisturiser and protect with sunscreen.
Step 14. Discuss the at home and professional treatment plan.

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Oxygenating Brightening Facial

ILIKE ORGANIC SKIN CARE

This Oxygenating Facial lightens pigmentation and hydrates stressed complexions.

Step 1. Apply 2-3 pumps of Lemon Cleansing Milk to face and neck area, massaging for 30-60 sec. Remove it with damp facial towel.

Step 2. Mix 1-2 pumps of the gel cleansing concentrate in damp hands. Apply and massage into skin with fingertips for 1-3 min. in circular motions avoiding the eye area. Remove it with damp facial towel.

Step 3. Spray Stonecrop Toner on skin. Wipe skin with a cotton pad moistened by toner, or press toner into skin with your hands.

Step 4. Apply 1-2 tsp. of Yogurt Power Peel in a thin layer over the skin and let sit for 3 to 5 min. Do not use broken skin, no steam. Remove it with damp facial towel.

Step 5. Repeat step 3.

Step 6. May be used with steam or use it with wet hands. Massage Saponaria and Linaria Massage Cream 1 tsp. into skin for 10-15 min. Remove massage cream with damp facial towel and continue with extractions. Tone following extractions.

Step 7. Layer the Vita-C Booster with Apple & Lemon onto the skin. Do not remove. Apply the Cucumber & Parsley Gel Mask blended with Vitalizing Powder for Gel Masks. Blend 0.5 tsp. oxygenating powder into 1 tsp. of Cucumber & Parsley Gel Mask right before application (add toner if you need more moisture). Apply this oxygenating treatment. Remove completely with a cool damp face towel after 15-20 min. effecting period.

Step 8. Apply one pump of serum to face, neck and décolleté area. Apply 0.5 tsp. of moisturizer with light effleurage movements. Apply Tomato Face and Body Moisturizer for Exposed Skin to face, neck and décolleté.

Step 9. Apply QuadDefense Eye Cream with Sea Buckthorn around the eye area, gently tapping it in from the outside to the inside end of the eyes.

Step 10. As a final step, apply a small amount of Lip Balm from our selection—choose the guest's favorite flavor.

INGREDIENT 3: COMPLIMENTARY PRODUCTS FOR VITAMIN A

Products containing Vitamin A (e.g., retinal) aren't cheap, which often prompts consumers to question methods to optimize the efficacy of their skin care routines when featuring retinal-based cosmetics. Given retinal's proven ability to improve skin texture, boost radiance, and diminish the appearance of hyperpigmentation, and wrinkles, consumers should be encouraged to integrate products containing hyaluronic acid (humectant), niacinamide (Vitamin B3), antioxidants (Vitamin C), and ceramides to harness the full potential of product containing retinal. By addressing multiple skin concerns and providing a balanced combination of hydrating, nourishing, and protective ingredients is a powerful approach and holistic method to address visible signs of aging and fostering overall skin health.

—John Stanek, Director of Marketing and Product Development at CoValence Labs

INGREDIENT 5: PI

The focus on skin microbiome health has le
skin care products. These ingredients help s
promoting a healthy barrier function and o
help manage inflammation, aging, skin stre
When incorporating prebiotics, postbiotics,
it's essential to choose products with stable
ingredients effectively to the skin.

—Michael Pugliese, CEO ar

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INGREDIENT 4: SUNLESS TANNING INGREDIENTS

The most important thing to look for in your sunless tanning formulas are ingredients that help skin to increase hydration, like plant derived squalane or hyaluronic acid. Since DHA, the active ingredient responsible for browning your skin, is inherently drying, look for hydrating ingredients to keep skin nourished and glowing. My favorite formulations contain multipurpose ingredients. We use organic aloe vera leaf juice to create consistently even and long lasting results for our professional airbrush tanning services. Aloe vera is known to deeply hydrate the skin, soothe, soften and negate free radicals responsible for the appearance of aging. With skin sensitivity on the rise, look for ingredients that you know agree with your clients' skin type.

—Lauren Rampello Becotte, Founder & Chief Creative Officer at Pure Glow

RE/PROBIOTICS

ed to the rise of prebiotic and probiotic
support the skin's natural microbiota,
verall skin health. Pre/post biotics can
ess and promote overall skin health.
and probiotics into skin care routines,
formulations that deliver these active

nd President at Circadia

INGREDIENT 6: ALGAE

I'm absolutely obsessed with algae as an ingredient. Its unparalleled sustainability and ease of cultivation are just the tip of the iceberg. Beyond its environmental benefits, algae is a treasure trove of nutrients essential for cellular health. It's the presence of astaxanthin, a powerful antioxidant from the carotenoid family, that truly excites me. Acting similarly to retinol, it aids in the renewal of skin cells, but with a gentleness that suits every skin type. Algae isn't just an ingredient; it's the future of skin care, offering both ecological harmony and transformative skin benefits.

—Justine Kahn, Founder of Botnia Skincare

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INGREDIENT 7: POLYGLUTAMIC ACID

Polyglutamic Acid (PGA is an incredible natural active ingredient that is a powerful humectant and moisturizer. PGA is essentially a molecule composed of many glutamic acid peptides, which is a naturally-occurring amino acid. PGA on its own can hold up to 5000x it's weight in water, helping the skin stay hydrated and retain moisture. PGA has also been scientifically shown to reduce the appearance of fine lines and wrinkles by increases skin elasticity and moisture content.

An underappreciated aspect of Polyglutamic Acid (PGA) is it's ability to work synergistically with hyaluronic acid (HA), as PGA inhibits the hyaluronidase enzyme, preventing the breakdown of our naturally-occurring hyaluronic in our skin. Polyglutamic is a powerful humectant and anti-aging ingredient on it's own, and ALSO works to prevent the loss of hyaluronic in our skin.

—Vishnu Potini, MD, MBA, Hale Cosmeceuticals Inc.



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Ingredients 1001:

Exploring the Significance of Ingredients

By Becky Kuehn, Oncology Spa Solutions

Ingredients 1001? Yep, at least 1001! If you've been in the beauty and wellness industry for any time at all, you've seen more than one article on ingredients. It seems to be a topic that has been covered at least a thousand times. Whether you've perused magazines, attended conferences, or scrolled through social media, discussions on ingredients pop up everywhere. And everyone, even the 13-year-old on TikTok is now an "expert" on ingredients. So, who's right and what do we really need to know?

Let's talk for a minute about why ingredients matter at all. I have been working with those suffering from medically reactive skin for over 15 years now and have learned quite a bit from my clients. When someone is diagnosed with a potentially fatal illness, they tend to look closely at their lives. What could they have done differently, and what should they be doing now to stay healthy in the future? More specifically, they ask, "How can I clean up my life?" It's actually a great question that we all should ask ourselves every once in a while.



Based on my client's skin care needs, my view on skin care ingredients has always been (way) to the far "clean" side. I learned a lot about our industry with some interesting interactions with skin care formulators and chemists.

Cleaning up your life means reducing your exposure to toxins. Look at what you come into contact with each day (or several times a day), that could potentially raise your toxin exposure and affect your health?

- Food and water
- Cleaning supplies (laundry, kitchen, cleaning, quats, etc.)
- Shampoos and body products
- Skin care products
- Nail care products
- Oral care

What is "Medically Reactive" Skin?

Before I can share the ingredient lists, I need to tell you who I had in mind when I researched good and bad ingredients.

The term "client" in the context of medically reactive skin doesn't exclusively refer to individuals undergoing cancer and cancer treatments. While this demographic is certainly one group that may experience medically reactive skin conditions, the concept extends to a much broader audience.

Clients with medically reactive skin can encompass individuals dealing with various health conditions (See **U.S. Conditions Breakdown Sidebar**).

U.S. Conditions Breakdown

Disorder Name How Many People Have It (as of 2023)

Cancer and cancer causing treatments: 18 million
Autoimmune disorders: 30-50 million
Type 2 Diabetes: 50 million<
Eczema: 31.6 million
Psoriasis: 8 million
Hormonal imbalances: 1 in 2 women
Allergies: 50+ million
Pregnancy: 5-6 million
Environmental Changes: No stats available
Multiple medications: 27-200+ million

Why These ingredients?

Toxicity expert, Dr. Yvonne Burkart, PhD, DABT says that there are hidden toxins in our everyday cosmetics that can "turn on" cancer genes inside the body. She did a medical study with humans that had breast cancer. She asked them for 28 days just to stop using the personal care products they had been using, no other changes. When they tested them again, what they found

was astonishing! Each one showed that the cancer genes had been turned off, and the tumors had been reduced.

This is why the selection of ingredients in our skin care needs to be a focus. And, what I love is once you know what is good and what should be avoided, it's an easy way to reduce your exposure and toxic load.



Beneficial Ingredients For "Medically Reactive Skin"

Understanding the specific causes of medically reactive skin is crucial for developing personalized skin care routines and choosing products that minimize the risk of adverse reactions. Individuals with reactive skin should consult with dermatologists or skin care professionals for tailored recommendations based on their unique circumstances. The subsequent lists categorize ingredients based on their intended results, providing you with an overview of optimal choices. Finally, we will outline ingredients to steer clear of.



Anti-inflammatory Ingredients

These are your "calm and soothe" ingredients.

Calendula Extract. With anti-inflammatory and anti-bacterial properties, calendula extract is used to soothe and promote skin healing.

Frankincense Oil. This soothing, anti-inflammatory, skin strengthening oil improves tone and elasticity, while also reducing the appearance of wrinkles.

Organic Vanilla Extract. This extract is full of vitamins and antioxidants, and it's anti-inflammatory and soothing. The scent is also known to calm nausea, anxiety and depression.

Jojoba Oil. This soothing, anti-microbial contains long lasting moisture benefits.

Hemp Seed Oil. This anti-inflammatory oil encourages new cell generation and reduces wrinkles.

Rosehip Seed Oil. This anti-inflammatory and moisturizing oil contains vitamin A and C that help treat the signs of aging.

Vitamin E. This oil soothes, moisturizes and reduces itching

Rose Essential Oil. This anti-inflammatory, antioxidant,

Top: Image by Microgen at Adobe Stock; Bottom: Image by Tatiana at Adobe Stock

with vitamins and minerals that promote circulation, while moisturizing and inhibits pigmentation. Its scent is comforting and can relieve stress and depression.

Apricot Kernel Oil. This oil contains Amygdalin (a powerful phytonutrient) that moisturizes, protects and moisturizes. This oil may even prevent certain cancers.

Tamanu Oil. This oil is calming, soothing and promotes increased healing of wounds.

Peppermint Oil. This oil is cooling and contains anti-inflammatory properties that may help soothe irritated skin and reduce redness. It also has antimicrobial and analgesic properties that will combat bacteria and give relief for minor pain and aches.

Hydrolyzed Marine Collagen. Anti-inflammatory, hydration boosting collagen that supports skin hydration and elasticity, while improving mineral density and wound healing.

Chamomile Extract. Known for its anti-inflammatory and calming properties, chamomile helps soothe sensitive or irritated skin.

Green Tea Extract. Rich in antioxidants, green tea extract helps calm inflammation and protects the skin from environmental stressors.

Licorice Root Extract. Known for its anti-inflammatory properties, licorice root extract helps calm redness and irritation.

Oat Extract and Oat Kernel Oil. Oats contain compounds that have anti-inflammatory and moisturizing effects, making them beneficial for calming the skin.

Hyaluronic Acid. While primarily a hydrating ingredient, hyaluronic acid can also soothe the skin and reduce inflammation.

Allantion. This ingredient helps soothe and protect the skin, reducing inflammation.

Panthenol. Panthenol helps moisturize and soothe the skin.

Castor Oil. Castor oil is anti-inflammatory, anti-fungal, moisturizing and has wound-healing properties.





Protecting Ingredients

Protecting the skin barrier is essential for maintaining healthy and resilient skin. Several safe ingredients are known for their ability to support and strengthen the skin barrier.

Ceramides. Lipids that occur naturally in the skin, ceramides help maintain the integrity of the skin barrier, preventing moisture loss and promoting hydration.

Fatty Acids. Essential fatty acids, such as omega-3 and omega-6, (jojoba oil, olive oil, cocoa butter) are crucial for maintaining a healthy skin barrier. They contribute to lipid synthesis and barrier function.

Cholesterol. Cholesterol is a key component of the skin barrier, helping to maintain its structure and function. It works in conjunction with ceramides and fatty acids (typically plant-derived).

Hyaluronic Acid. Known for its ability to retain water, hyaluronic acid helps keep the skin hydrated, contributing to a healthy skin barrier.

Niacinamide (Vitamin B3). Niacinamide has anti-inflammatory properties and helps improve the skin barrier. It can reduce redness, irritation and support overall skin health.

Shea Butter. Rich in fatty acids, shea butter provides nourishment and helps reinforce the skin barrier.

Zinc Oxide. Often used in sunscreens, zinc oxide provides a physical barrier against UV radiation, protecting the skin from damage that can compromise the skin barrier.

Moisturizing and Hydrating Ingredients

Medically reactive skin also needs additional hydration and moisturizing. There are numerous cosmetic ingredients known for their hydrating properties, helping to moisturize and nourish the skin.

Hyaluronic Acid. This ingredient attracts and retains moisture, keeping the skin hydrated.

Ceramides. Ceramides help to maintain the skin's natural moisture barrier.

Panthenol. This ingredient improves skin hydration and promotes healing.

Jojoba Oil. This oil mimics the skin's natural oils, providing hydration without greasiness.

Shea Butter. Shea Butter is rich in fatty acids, it moisturizes and nourishes the skin.

Squalane. Squalane moisturizes and enhances the skin's natural lipid barrier.

Olive Oil. This oil is an occlusive that will hydrate and keep water in the skin.

Evening Primrose Oil. This ingredient contains omega-6 fatty acids and Linoleic acid that has been shown to prevent peeling and water loss, maintaining the skins hydration.

Notice that some of these are also on the anti-inflammatory list? Don't we love ingredients that can multi-task? Yes!

Wound Healing Ingredients

Tamanu Oil. This oil is calming, soothing and promotes increased cell turnover and wound healing.

Calendula Extract/oil. This ingredient is anti-inflammatory and anti-bacterial properties and is soothing and promotes skin healing.

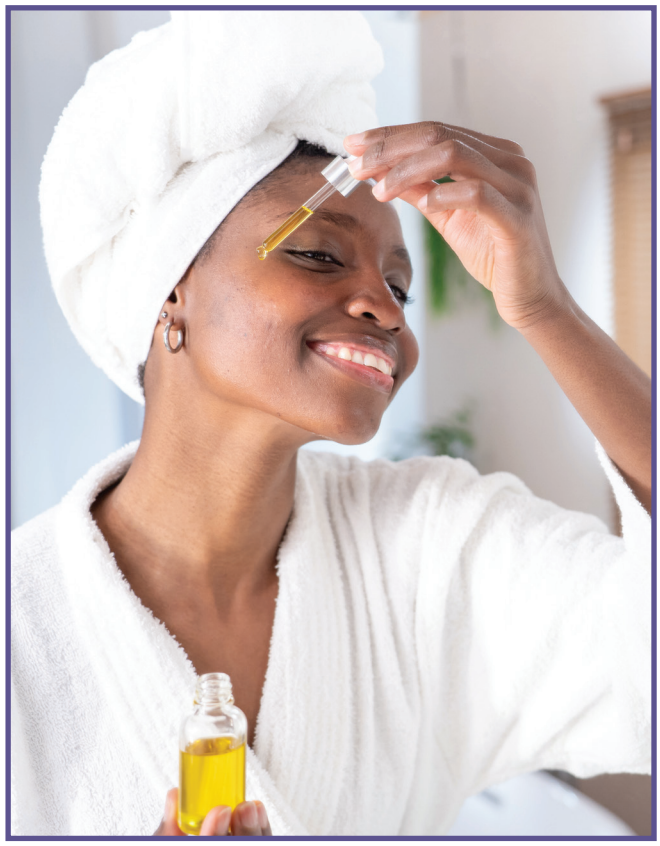
Zinc Oxide. Zinc oxide provides a protective barrier to support the body's natural would healing.

Allantoin. Known for its soothing and skin-healing properties, allantoin helps promote cell regeneration and reduce inflammation.

Panthenol (Provitamin B5). This ingredient has moisturizing properties and supports skin regeneration. It is often used to improve skin barrier function and enhance wound healing.

Hyaluronic Acid. Hyaluronic acid helps maintain skin hydration and supports the skin's natural healing processes. It is often used to improve skin texture and elasticity.

Left: Image by Anna at Adobe Stock; Right: Image by deliris at Adobe Stock



Centella Asiatica (Gotu Kola). This ingredient contains compounds known as triterpenoids, which have been shown to promote collagen production and accelerate wound healing.

Vitamin E. This antioxidant helps protect the skin from damage. Vitamin E also supports the healing process by promoting cell regeneration.

Chamomile Extract. This extract is known for its anti-inflammatory and soothing effects, and aids in wound healing and reduce skin irritation.

Castor Oil. This oil is anti-inflammatory, anti-fungal, moisturizing and contains wound healing properties.

What To Avoid

There are some ingredients that should be avoided, especially when it comes to skin care. Here is a list of ingredients we want to avoid and why.

- **PEG Compounds:** Cancer, allergies, hives, eczema and irritation
- **Hydroquinone:** Cancer, developmental and reproductive toxicity
- **Octoxynols:** Cancer, toxicity and endocrine disruptor
- **Sodium Laureth Sulfate:** Cancer, allergies and immunotoxicity
- **Ethyl Acetate:** Cancer, neurotoxicity and organ system toxicity
- **Aluminum:** Cancer, skin irritation and immunotoxicity
- **Petrolatum/Petrochemicals:** Cancer, immunotoxicity and allergies
- **Oxybenzone:** Immunotoxicity, endocrine disruption and cellular changes
- **Fragrance:** Cancer, allergies, dermatitis, immunotoxicity and endocrine disruptor
- **Phthalates:** Cancer, allergies, toxicity and endocrine disruptor
- **Triclosan:** Lung irritant, organ system toxicity and endocrine disruptor
- **Formaldehyde:** Cancer, toxicity, immunotoxicity and endocrine disruptor
- **DEA and TEA:** Cancer, allergies and immunotoxicity
- **Coal Tar Derivatives:** Cancer, toxicity, allergies and immunotoxicity
- **Parabens:** Cancer and endocrine disruptor
- **BHA and BHT:** Cancer, allergies and endocrine disruption
- **Phenols:** Cancer and endocrine disruptors

Phthalates, Parabens and Phenols specifically are ingredients that have been shown to turn on the "cancer genes."

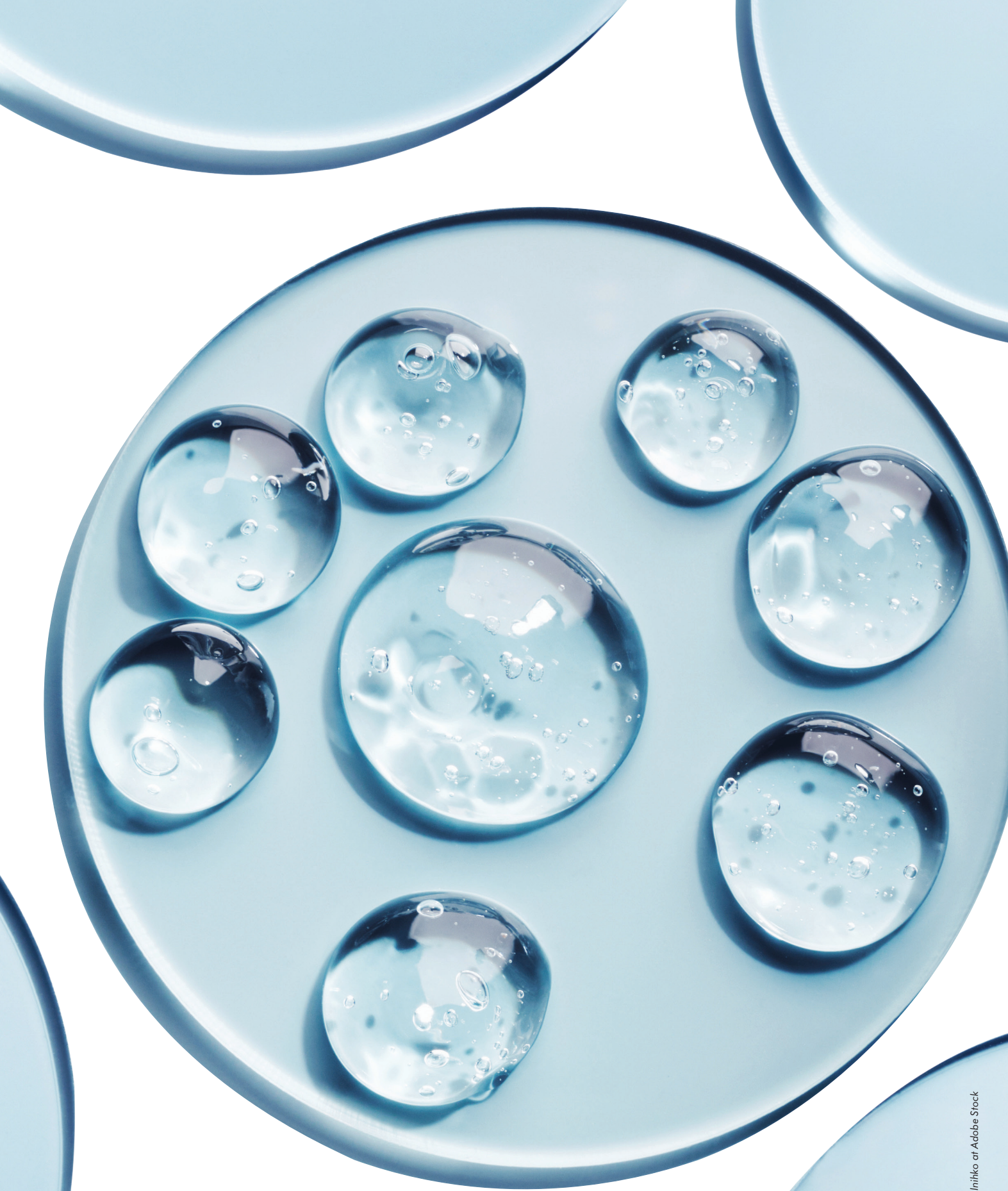
ADDITIONAL RESOURCES:

1. *https://pathology.jhu.edu/autoimmune/prevalence/*
2. *https://allergyasthmanetwork.org/allergies/allergy-statistics/*
3. *https://www.kff.org/affordable-care-act/issue-brief/data-note-prescription-drugs-and-older-adults/*
4. *https://nypost.com/2019/02/22/nearly-half-of-women-have-been-affected-by-a-hormonal-imbalance/*
5. *https://davidsuzuki.org/living-green/dirty-dozen-cosmetic-chemicals-avoid/*
6. *https://www.ewg.org/skindeep/*
7. *https://www.cir-safety.org/*
8. *https://www.youtube.com/watch?v=ZJnF99GfrC09.*
9. *https://pubmed.ncbi.nlm.nih.gov/36746253/*

(All websites accessed Mar. 28, 2024)



Becky Kuehn serves as the visionary founder of Oncology Spa Solutions® and is the esteemed author of "Life Changing Esthetics®." Her core mission revolves around enlightening spa, salon, and medical professionals on how to alleviate the often devastating side effects of cancer treatments. She stands as the foremost, leading advocate and intermediary for estheticians trained in holistic and oncology practices, whether they work within hospital treatment centers or collaborate with oncology specialists.



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DELIVERING THE GOODS:

Delivery Mechanisms of Skin Care Ingredients

By Erin Madigan-Fleck, NMD, CDT, LE, LEI

Without question, the beauty industry has witnessed astonishing growth over recent years due to an enhanced emphasis on self-care, evolving consumer preferences, social media presence, diversity, inclusivity and technological advancements. These influences have led to an enormous increase in the amount of beauty and personal care product offerings, the development of novel formulations, improvements in product performance, and an expansive increase in the selection of ingredients for manufacturing.

There remains a preference and demand for natural ingredients. Traditional formulations that have contained non-biodegradable and "advisory" ingredients by today's standards have been regenerated to meet current consumer demands. In addition, the shift towards exceptionally effective and sustainable skin care has prompted movement in legislation, marketing and consumer awareness.

Functional Ingredients & Cosmeceuticals

Although its current popularity is often viewed as a trend, the concept of functional ingredients is not new. Functional Ingredients are defined as materials that can perform a specific function or purpose. Functional cosmetics formulations must include ingredients that are recognized as safe and will provide desirable and beneficial effects. Contemporary formulations have extended beyond simplistic functions and may feature specific skin care benefits, in addition to their primary role.

The term cosmeceutical was coined by the late Dr. Albert Kligman who in 1984 defined a cosmeceutical as: "a topical preparation that is sold as a cosmetic, but has performance characteristics that suggest a pharmaceutical action." This concept typically suggests that a skin care formula or ingredient provides therapeutic benefits to the skin above and beyond what would be seen within a simple formula. The U.S. Food and Drug Administration (FDA) has never truly embraced the term and as recently as 2020, reminded the industry that the term has no meaning under the law.[1]

A great deal of innovation has evolved since the inception of Kligman's cosmeceutical concept. Today, functional skin care hails as a "modern archetype" utilizing innovative ingredient combinations with actives, antioxidants, indigenous botanicals, fermentation products and novel biotechnology.

Active Ingredients Defined

According to the FDA, an active ingredient is any component that provides pharmacological activity or other direct effect in the diagnosis, cure, mitigation, treatment, or prevention of disease, or to affect the structure or any function of the body of man or animals.[2] Controversy continues regarding the active ingredients found within cosmeceuticals and skin care products, and in particular their mechanisms of action, formulation, optimal concentration, penetration and retention in the skin.

Although hundreds of skin care ingredients are described or marketed as "actives," many are not officially recognized as such by the FDA **(See FDA Active Ingredients List Sidebar)**. Cosmetic active ingredients have multiple functions and can be divided into preventive protective, regenerative and anti-inflammatory activities **(See Cosmetic Active Ingredients List Sidebar)**.

FDA Active Ingredients List[3]

- Benzoyl peroxide
- Resorcinol
- Salicylic acid
- Sulfur
- Allantoin
- Calamine
- Cocoa butter
- Colloidal oatmeal
- Dimethicone
- Glycerin
- Zinc oxide
- Astringents
- Avobenzone
- Homosalate
- Octisalate
- Titanium dioxide
- Hydrocortisone

Cosmetic Active Ingredients List

- Retinol
- Retinaldehyde
- Lactic acid
- Glycolic acid
- Hyaluronic acid
- Beta-glucan
- Aloe vera
- Vitamin C
- Vitamin E
- Kojic acid
- Niacinamide
- Peptides
- Amino acids
- Growth factors
- Shea butter
- Linoleic acid
- Ceramides
- L-ascorbic acid
- Niacinamide
- Gingko Biloba
- Ginseng
- EGCG
- Soy isoflavones



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Fundamental Positioning

Most skin care cosmetic formulations are an oil-water emulsion (O/W), a water-oil emulsion (W/O) or a double emulsion (oil-water-oil or water-oil-water). From the delivery perspective, the W/O emulsion is much preferred, since the stratum corneum lipids favor the oil-soluble active ingredients. A primary consideration regarding the efficacy of a skin care product is the release of its actives.

Conversely, it is not only the concentration or "potency" of an active in a formulation, but the cohesiveness of the entire formulation including vehicles, delivery system, binders, etc., that lends to the product's efficacy. Additionally, the products subsequent penetration into the stratum corneum, passage into the epidermal strata, and metabolization, determines the bioavailability of active agents to carry out their intended functions.

From the cosmetic and dermatological point of view, the bioavailability of an ingredient is extremely important: it is the portion of active agent that is locally available for metabolization in the skin after the application that supports its efficacy. This is particularly difficult to gauge as the individual skin layers would require evaluation to confirm traces of an active ingredient that may be detectable.

According to Dr. Cornelia M. Keck at Marburg University Institute of Pharma¬ceutical Technology & Biopharmacy Medicinal, substances or cosmetic agents must transition into the skin barrier and channel the active substances specifically to where they are needed. For the active ingredient to reach the target, the destination and the route must be clearly defined.

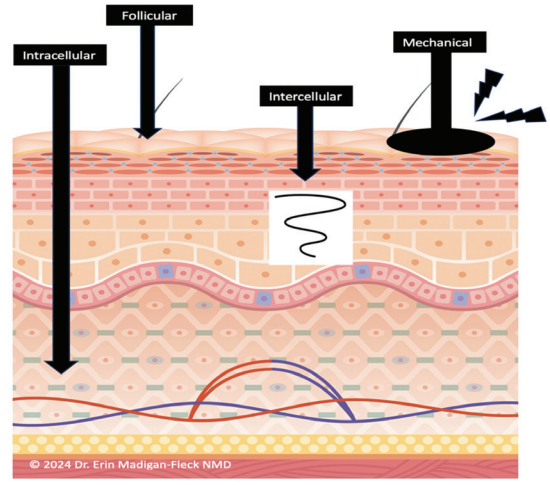
Additionally, whether the active substance could or should enter the dermis and transition into circulation is of great significance. The function of active ingredients must present solubility, and the active ingredient molecules should diffuse easily from the formulation to the skin.

Regarding the penetration of active compounds, careful consideration must be given to identifying potential hypersensitivities, skin surface abnormalities and barrier status. The incorporation of skin needling, or an electrical or heat-activated modality, should be cautiously confirmed for its safety to be used in conjunction with actives as enhanced stimulation is plausible and should be anticipated with their use.

The Delivery

Delivery systems are mechanisms of transport for the protection, controlled and targeted delivery of active substances. A highly desirable function of a delivery system is its ability to enhance the penetration of active ingredients through the skin layers while controlling its concentration in the skin, and ultimately delivering actives to the superficial skin layers. Delivery systems also can protect sensitive active ingredients, while the product is stored by only releasing actives when it is applied to the skin, providing a controlled and targeted release.

Active compounds are generally sensitive to light, pH, oxygen and temperature, which can lead to degradation. Novel and innovative solutions have been designed to help maintain their effectiveness. Notably, the type of delivery system has greater significance than the active ingredient itself, as the delivery system "programs" the actual delivery of the ingredients.



It's highly desireable for delivery systems to enhance penetration.

Top: Image by New Africa at Adobe Stock; Bottom: Image courtesy of Dr. Erin Madigan-Fleck NMD

Considerations include: the type of delivery system, delivery mechanisms, cohesiveness and the safety of ingredients and compounds. There are intercellular and trans follicular delivery methods of cosmetic compounds via epidermal penetration.

Intracellular Delivery

This route is the main transepidermal pathway and permits a direct viaduct through the SC to the epidermis, and potentially the dermis. Liberation, penetration, permeation, and potential absorption occur through the corneocytes and intercellular lipid matrix. As the stratum corneum features keratinized cells, intracellular lipids, fatty acids and cholesterol, lipid-soluble products, such as liposomes and nanotechnology, are well suited to protect active ingredients for permeation. A molecule utilizing the transcellular route must penetrate, diffuse and move through the corneocytes. Additionally, the molecule must also partition into and diffuse through the estimated four to 20 lipid lamellae between each of these cells.[4]

The transcellular route requires the integration of both hydrophilic and hydrophobic components, and to facilitate the passage of molecules through the SC, penetration enhancers may be utilized. Chemical enhancers are featured in many dermatological and cosmetic products to help enhance the dermal absorption of lipophilic and hydrophilic active ingredients. More than 350 chemicals have been demonstrated to enhance skin permeability including terpenes, sulfoxides, fatty acids, fatty alcohols, alcohols such as glycol, surfactants and urea. These enhancers aid in absorption and are believed to improve the solubility of actives within the SC or the intercellular lipid bilayers. Studies suggest other potential mechanisms for the effectiveness of enhancers including an adjustment and increase in the fluidity of the SC lipids, removal of intercellular lipids and dilation between the cornified cells, and the exfoliation of the SC, which may result in undesirable effects such as ineffective barrier function.[5]

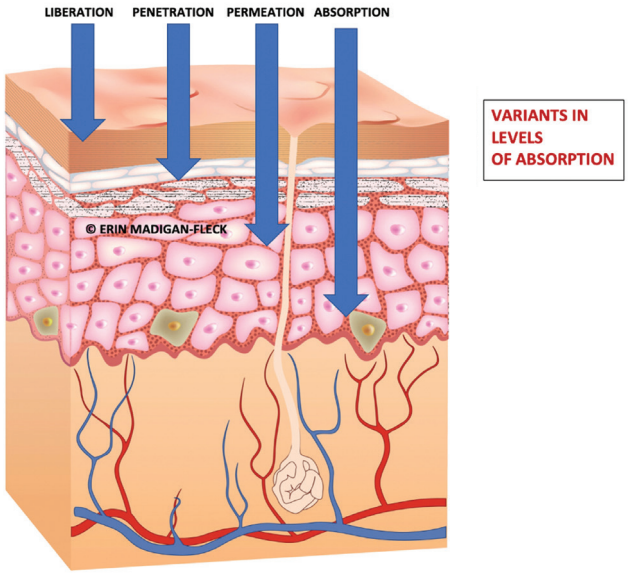


Image courtesy of Dr. Erin Madigan-Fleck NMD

According to pharmaceutical, cosmetic and organic chemist Dr. Hans Lautenschläger, the transport of substances and their respective droplet emulsion particle size ranges between 20 to 1µm (0.020 to 0.001 mm). Although emulsifier concentrations may be reduced, microemulsions may develop minuscule particle sizes so small that they can hardly be measured. While this reduction factor may ensure the excellent transport of an active substance, there is potential for disruption to the skin barrier by ingredients in a formula that if left on the skin for a period may provoke irritation. In the situation where high concentrations of petrolatum or mineral oils occlude the skin surface for a certain period, persistent swelling results in the stratum corneum leading to barrier disorders and a delayed regeneration of the skin. Alcohol products in high concentrations also result in barrier disorders, as they severely affect the osmotic balance of the skin.[6]

Liposomes

Liposomes are the most widely known cosmetic delivery system, are highly permeable, have a favorable storage capacity on the stratum corneum, and are considered a chemically active agent to the skin. Their phospholipid membranes can facilitate the passage of active ingredients across the SC, as they have a high affinity for the skin surface.

Liposome structures are classified according to their structure and the number of lipid bilayers (lamellae) and vesicle size. Their spherical sub-microscopic vesicles have diameters between 25 and 5,000 nm and are composed of lipophilic and hydrophilic molecules. The liposome center consists of an aqueous cavity



encapsulated by one or more biomolecular phospholipid sheets, each separated from the other by aqueous layers. The multifunctional properties of phosphatidylcholines lead to various lipids in liposomal technology: natural lecithin (egg or soybean lecithin) or synthetic lecithin (di-palmitoyl lecithin), and the most common is phosphatidylcholine, phosphatidylethanolamine, phosphatidylinositol, phosphatidylserine and phosphatidic acid.[7,8]

Substances that form structures like the barrier layers and are cohesive to the natural lipid matrixes are supportive to barrier homeostasis due to their comparable physical structure. Phosphatidylcholine (PC) is a well-researched and effective delivery agent that will spontaneously fuse with the barrier layers without affecting their physical structure. This enables the active agent molecules to transfer and dissolve releasing the encapsulated agents into the deeper skin layers. For this reason, liposomal products should be free of preservatives, perfumes and further potential allergens.[9]

Soy (isoflavone) phospholipids are cost-efficient, and many have their estrogenic metabolites extracted. The use of phytoestrogens has had both controversy and support in product formulation. Research has assessed topical soy-based applications on many parameters including skin aging, skin barrier, dryness, eczema, acne and erythema. Consideration must be given to the ratio significance of the phytoestrogen in a product, along with other ingredients in the product such as herbal extracts, antioxidants, additional lipids, etc. Genistein (soy phytocompound) has been suggested to inhibit the unwanted activation of protein kinases that would otherwise lead to collagen and elastin degradation. In addition, the phytoestrogen effects of soybeans have been suggested to improve skin aging, especially among women undergoing menopause.[10,11]

Nanoparticles

Nanotechnology originated within the realm of biotechnology and bioscience, and is well utilized in pharmacology from which the cosmetic industry has taken its cue. Nano-based products utilize a large variety of nanomaterials that are presented in different compositions, shapes and sizes. In cosmetic formulation, nanotechnology permits chemists to overcome many common limitations of products by enhancing penetration, improving the stability of ingredients, controlling the release of active ingredients, and formulas themselves functioning as active agents **(See Safe Ingredients for Nanoparticle Formulation Sidebar).**

Due to their specific composition, nanoparticles also have a high affinity to the SC and are viable

Safe Ingredients for Nanoparticle Formulation

- Alpha tocopherol
- Argan oil
- Ascorbic acid
- Boswellia
- Butchers broom
- Ceramides
- Coconut oil (virgin)
- CoQ10
- Curcumin
- Titanium Dioxide
- Isoflavone
- Kiwi seed oil
- Lauric acid
- Lavender
- Linseed Oil
- Lutein
- Lycopene
- Mangosteen
- Pomegrante
- Propolis
- Quercetin
- Raspberry seed oil
- Resveratrol
- Rice brain oil
- Rosemary extract
- Rutin
- Vitamin A
- Vitamin E

Top: Image by chokniriat Adobe Stock; Bottom Image by Thongden_studio at Adobe Stock :

transport systems for active agents to improve the ability of penetration. Nano dispersions are preparations with particles smaller than 1 µm (= 1000 nm), that permit the reduction or even elimination of additives such as emulsifiers, spreading substances and penetration enhancers.

Components used for the preparation of nano emulsions are generally recognized as safe (GRAS) and their smaller particle size provides higher stability and better suitability to carry active ingredients, and it also increases the shelf life of the product. The capsules of nanoparticles at best consist of the monolayers of phosphatidylcholine, and the encapsulated nanoparticles contain an oily nucleus. Solid nanoparticles develop a filmy layer on the skin surface connected with an occlusive condition featuring a "depot-like effect" from where active agents are released. This occlusive condition is also responsible for the increase of skin hydration.

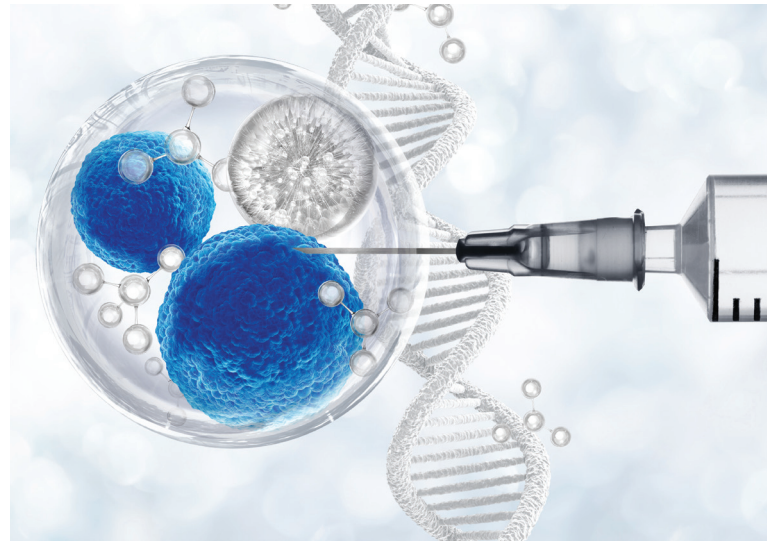
Nanomaterials tend to adhere to the SC surface and accumulate in the corneocyte spaces, and follicles acting as depots for bioactive agents and increasing their concentration potential. Due to their nature nanoparticles have a specific capacity to assimilate oil soluble agents such as vitamin E, A, Coenzyme Q10, etc. Nanoparticles are invisible to the naked eye or under a standard microscope and can only be seen through electron microscope technology.[12,13]

Modern Ingredient Marvels

NEUROPEPTIDES

Neurocosmetics are cosmeceuticals that contain synthetic neuropeptides that interact with the nervous system through skin mediators. Skin responses are regulated by a neuroendocrine system found in the skin capable of initiating adaptation mechanisms through quick pathways (neural pathways) or slow pathways (humoral pathways), acting at both local and systemic levels. Neuropeptides can play a role in skin homeostasis by activating or inhibiting such mediators.

Peptides found in skin act by various mechanisms of action, such as being able to function as epidermal or nervous growth factors or as neurotransmitters. There is growing research on bioactive peptides aimed at investigating their uses in products developed for stimulating collagen and elastin synthesis and improving skin healing. Neurocosmetics are said to



act with the central nervous system, being capable of stimulating the nerve endings of the skin, sending pleasure and well-being "feelings" to the hypothalamus, and causing the release of specific substances on the skin which improve the aspect of skin relief.

Skin cells release growth factors and proteins that bind insulin, which are synthetized from proopiomelanocortine (POMC), catecholamines, steroidal hormones, vitamin D, eicosanoids from fat acids, and retinoids from diet carotenoids. Skin has developed an autonomous system that responds to local and peripheral stress, which functions by making use of neurotransmitters and hormone peptides in a manner similar to the hypothalamus-hypophysis-adrenal axis.[14]

Growth Factors

Growth factors are considered regulatory proteins in the body that mediate signaling pathways inside and outside of cells and are recognized for their role in dermal wound repair. They are located in skin fibroblasts and are responsible for synthesizing collagen and the extracellular matrix. The pertinent growth factors in skin and fibroblasts are epidermal growth factor (EGF), fibroblast growth factor (FGF), platelet-derived growth factor (PDGF), and vascular endothelial growth factor (VEGF). Morphological aging and wound healing both stimulate the release of growth factors impacting biochemical pathways that are critical to repair the dermal matrix.

Growth factors utilized in products are obtained from either cultured human cells (stem cells derived from adipose tissue or the newborn umbilical cord) or genetically engineered microorganisms. Recombinant technology uses bacteria or yeast cultures that have been modified to include a DNA sequence for a specific growth factor. International Nomenclature Cosmetic

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Ingredient (INCI) names are used to indicate the presence of a growth factor in a cosmeceutical: EGF is human oligopeptide-1, PDGF is human oligopeptide-10, and FGF 9 is human oligopeptide-12.

One challenge for growth factors is their stability, the potential to keep them active at room temperature, with an anticipated shelf life. In the laboratory setting, most growth factors are stored at temperatures less than –20 °C to maintain stability. Enzyme-linked immunosorbent assay (ELISA) tests can be used to examine the stability of growth factors in finished formulations, but this testing is not routinely done.

Multiple clinical studies over the last 20 years show that topical application of preparations containing growth factors can stimulate collagen synthesis and thereby decrease the appearance of fine lines and wrinkles. Hydrophilic molecules larger than 500Da MW offer low penetration potential through the stratum corneum. Growth factors are large hydrophilic molecules greater than 15,000 Da MW that are unlikely to penetrate through the epidermis in a measurable quantity to produce pharmacologic effects.

The primary mechanisms by which the growth factors can potentially exert their effect on the dermal matrix is by penetration through hair follicles, sweat glands, or compromised skin followed by interaction with cells in the epidermis such as keratinocytes to produce signaling cytokines that affect cells deeper in the dermis. Research says that it is hard to separate the effects of a growth factor itself from the moisturizer vehicle without ELISA testing. In a non- pharmaceutical product, the growth factor and vehicle effect cannot be separated, and the growth factor is always used in conjunction with the vehicle. It is estimated that about 5% to 10% of the growth factor added in a formulation remains active at room temperature. Because growth factors are regulatory proteins, this may be enough to elicit an effect, but must be confirmed through more in-depth testing.[15,16,17,18,19]

Opportunities Through Science

Cosmetic science and biotechnology have created immense opportunities for enhanced cosmetic formulations and efficacious ingredients. These may be viewed as optimistic retailing and service opportunities, and may afford us a heightened platform to showcase our knowledge, skills and talents.

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Erin Madigan-Fleck, NMD, CDT, LMC, LEI, has more than 35 years of experience in the aesthetic and natural health industry. She is a naturopathic medical physician with a private practice, Naturophoria, in Atlanta. She is a member of the American Society for Nutrition and serves on the Education Commission for the International Association for Applied Corneotherapy. She the owner and founder of DermaEducationTV Post Graduate Esthetic Training and the Scientific Esthetics Symposium.

WHAT'S MY ROUTINE?

ELAINE STERLING

FOUNDER OF ELAINE STERLING INSTITUTE AND ELAINE STERLING SKINCARE



5 STEP SKIN ROUTINE

I believe beautiful skin starts with a great skin care routine to maintain health and radiance at any age.



1. Cleansing products don't get enough credit, as they can be a game-changer. I use two different cleansers. In the morning, I use a gel cleanser and always cleanse my skin twice. I use a silicone skin brush to massage the cleanser into the skin and then rinse with water. In the evening, I use a cream cleanser to break down the makeup, dirt, debris and pollution from my skin. Then, I follow with a gel cleanser for my second cleanse. I let the cleanser sit on the skin for one to three minutes, so that the cleansers can do their magic.
2. I have two toners, one astringent toner for the evening and a hydrating toner for the morning. I like to spray the toner on my fingertips and press it into the skin like a serum. Because my skin is more sensitive, I find spraying on cotton rounds to be too rough for my skin.
3. I use two serums. First, I use a vitamin C serum and then a hyaluronic acid serum. I love to layer my products. I layer my serums and my moisturizers day and evening due to the fact that I have mature skin that lacks moisture and oil. I must adapt my skin care routine according to the seasonal changes and lifestyle stressors.
4. With my skin being more sensitive, I use an exfoliant once a week in the evening to help remove dead skin cells and even out my complexion. I use a two-step exfoliant that contains vitamin C crystals and an AHA, BHA activator. I combine the two, so I have a mini peel before I apply it to my skin.
5. Sunscreen 365 days a year is a must. I use a daily SPF 30 that is chemical-free. Chemical-free is better for the environment and better for your skin.



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In The Know

By Susanne Schmaling, Esthetics Council

The latest regulatory updates happening in the spa industry.

Navigating Your Scope of Practice

One of the most challenging aspects that estheticians face isn't just keeping up with the latest trends and techniques, but understanding the legal boundaries within which they can operate, known as their "scope of practice." In fact, one of the most frequent questions I get is: "Is this within my scope?"

It's one of the hardest questions to answer due to the way our state boards interpret how the laws and rules are meant to be implemented. Unless the answer has been vetted by the attorney general's office of your state or been litigated by a court, it's just an opinion. Given the rapid advancement in beauty technologies and treatments, interpreting these guidelines can often be confusing and incredibly challenging.

State boards rarely offer direct interpretations of the scope of practice, especially concerning specific modalities and advanced treatments. Unfortunately, we are increasingly affected by medical board interpretations as well. Having to monitor both boards can be a challenge for even seasoned professionals. Here are some key considerations for estheticians striving to stay within their professional boundaries while expanding their expertise.

1. **Understand the advertised intended use statement.** When determining whether a particular service or technology falls within your scope of practice, the first factor to consider is its intended use. This involves looking at what the treatment is designed to achieve, such as skin rejuvenation, acne management or pigmentation correction. Services that aim to affect the skin's structure or function significantly might require medical oversight or fall entirely outside the esthetic scope. An intended use statement is required to register with the FDA too. It is U.S. law that any device that affects the structure and function of the body be registered including devices imported and distributed.

2. **Assess the depth of penetration.** The modality's depth of penetration into the skin is another critical factor. This falls within the intended use description. For example, if we are firming the skin, the physiological impact is the dermis and or muscle. Treatments that work on the skin's surface are typically within an esthetician's scope, while those that directly impact deeper layers, such as the dermis, may not be. For instance, superficial peels may be permissible, but medium-depth chemical peels that affect below the epidermis often require a higher level of medical supervision or are completely out of scope.

3. **Evaluate the training requirements.** The level of training required to perform a treatment safely and effectively is also a determinant. If a modality requires advanced knowledge or training beyond the standard esthetic curriculum, it may indicate that the treatment is outside the traditional scope. Laser use is a clear example of this, as it requires a certain level of training not provided in any essential training. This type of device use requires post-licensure education and potential certification.

Even if you use these points to identify what may be in your scope, there probably will be communication with the board that does not give you the answer you want to hear. These can come in the form of a formal state board interpretation.



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Interpretation Statements

This is a bit controversial; the interpretation of the statute should include a public rules process in which stakeholders can comment on the rules. Often, I find interpretations done by boards that have no understanding of the modality reviewed and are done to avoid looking deeper at a device or modality. It's often expedient to just say a device is out of scope or another board such as the medical board has made a statement about the device or modality that influences the decision. Most boards have authority in the statute that allows them to do this.

Petitioning the Board

In cases where the scope of practice is ambiguous, estheticians can petition their state board for an interpretation. When doing so, it's essential to provide comprehensive documentation, including manufacturer safety data and details about the training requirements for using the modality. This evidence can help the board make an informed decision about whether the treatment aligns with the esthetic scope of practice. Manufacturers should be involved with this process, after all, they are making money from our use in the treatment room.

Here is a key takeaway you need to understand: do not go before a board for a specific modality interpretation without all your evidence proving why the device or modality should be within scope.

Take Action

In the absence of explicit guidance from state boards, estheticians must take the initiative to research, seek additional education, and when necessary, directly petition their regulatory board. By doing so, they can ensure that their practices are safe, legal, and at the forefront of the esthetic industry's advancements.

Manufacturers also have a critical role in supporting estheticians by providing clear and comprehensive information about their products. Together, through collaboration and vigilance, the esthetics industry can continue to thrive, innovate, and most importantly, ensure the safety and satisfaction of our clients.



Susanne Schmaling, a Licensed Master Esthetician, Certified Laser Technician and published author with over 29 years of experience, has made significant contributions to the spa industry. Her career spans sales, spa and medical spa ownership, and development of esthetics curricula, notably the Pivot Point Fundamental Esthetics for North America. She co-founded a digital personalization company in the US Beauty market and frequently presents at prestigious international conferences. As CEO and founder of the Esthetics Council, Susanne champions estheticians' scope of practice issues in the US. She holds advanced qualifications in instructional design, creating over 50 eLearning courses and numerous workshops on diverse topics like skin science, business mastery, and client retention. Susanne is a member of the Skin Inc. advisory board.

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Discover the future of age-defying skincare

A revolutionary skincare therapy from DMK MD, StemZyme® tackles wrinkles at their root cause redefining your skin's youthfulness. By stimulating your skin's stem cells and enzymes, StemZyme® rebuilds youthful, healthy skin without the need of down time or deep peeling.

At DMK we're not merely restoring youthfulness – we're redefining it.

Are you DMK-certified yet?

DMK

Danné Montague-King®

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