## active clearing





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## introduction

The modern pace of life has increased, causing constant daily pressures and discrepancies between our minds and our bodies. While our minds want to go faster and do more at once, our biochemistry has not changed much since the Stone Age. As a result, adults are living with more chronic stress, which can cause breakouts and visible signs of premature skin aging.

While everyone experiences chronic stress, the numbers are staggering for adult women, who face rising socioeconomic pressures to work outside the home while growing and maintaining a functioning household. Women do more unpaid domestic work, take on more emotional labor, and are twice as likely to suffer from severe stress and anxiety as men.<sup>1,2</sup> In the U.S., one third of total acne office visits are made by women over 25 years old – almost twice as many visits as men – with some dermatologists claiming nearly all of their adult female patients have acne.<sup>3,4,5</sup> In France, adult-onset acne was reported by 41 percent of women, with stress listed as a precipitating factor.<sup>6</sup>

When chronic stress, adrenal fatigue and hormonal imbalances intersect with environmental assault and lifestyle compromises, the skin reacts with breakouts that can then lead to premature signs of skin aging. These signs come in the form of post-inflammatory hyperpigmentation, rough skin texture and uneven skin tone. While some dermatologists are calling this an "epidemic," the skin health experts at Dermalogica and The International Dermal Institute call it the new normal.

Now is the opportune time to introduce **NEW Active Clearing**, which works on a whole new level to clear breakouts and reduce the visible signs of premature skin aging. Backed by the latest research, Active Clearing brings powerful ingredient technology to the forefront, leaving skin clearer and brighter than ever before.

## acne + aging

One of the first questions adults have when they experience acne is, "Why am I breaking out at this age?" Contrary to popular belief, acne isn't just for teenagers. It can affect anyone, regardless of age, gender, ethnicity or skin type. While teens typically get acne because of puberty hormones that trigger excess sebum production in the skin, adults get acne for a variety of reasons that range from intrinsic factors (stress, genetics, hormones, endocrine disorders, immune system, microbiome) to extrinsic factors (lifestyle, cosmetic use, the environment).

#### adult acne vs. teen acne

Adult acne generally falls into two categories: persistent and late-onset. Adults with persistent acne are experiencing a continuation or relapse of acne from adolescence into adulthood and middle age.<sup>7,8</sup> Late-onset acne (generally 25 years old and above) can happen to everyone irrespective of prior acne condition(s) during teenage years.

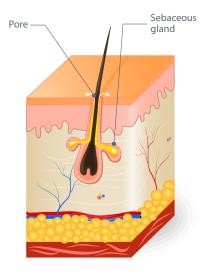
Both persistent and late-onset acne more frequently affect women and are often associated with inflammation, changes in pigmentation, and scarring, which cause the appearance of premature skin aging. Late-onset acne is thought to be less common than persistent acne<sup>9, 10</sup> which is generally mild to moderate in severity. Lesions tend to be inflammatory, with fewer comedones than adolescent acne.<sup>7,11</sup> Breakouts tend to occur along the mandibular region (mouth, chin and jaw line), the sides of the neck, and sometimes the chest.<sup>12</sup>

Adults also often have sensitized skin, and a combination of other skin conditions in addition to acne, which makes treatment more complex than treatment of teens, who generally have more resilient, uniform oily skin.



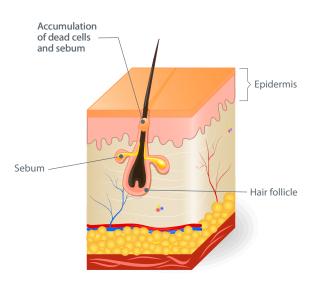
#### the anatomy of adult acne

Before understanding what causes adult acne, it helps to know how acne forms from a physiological standpoint. There are five main factors that contribute to the formation of adult acne and related signs of premature skin aging:



#### **Overactive Sebaceous Glands**

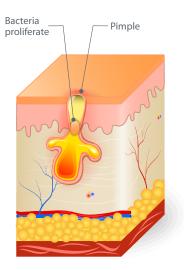
Acne occurs only where there are sebum-producing glands, which are mostly concentrated on the face and upper body. Typically, the fine vellus hairs that line each follicle would efficiently wick away sebum, but this is not the case in acneic skin. Excess sebum production is often associated with over-reactive sebaceous glands, a tendency toward follicle congestion and an oily T-zone.



#### **Cell Accumulation**

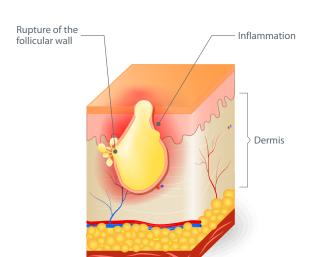
The skin naturally sheds dead skin cells through desquamation, however, acneic skin does not shed them properly. This is because acneic skin produces four to five times more skin cells yet possesses fewer lamellar granules, which are responsible for releasing natural desquamation enzymes. This causes retention hyperkeratosis (the "holding onto" of "more skin cells"). Desquamation also naturally slows with age, so an adult with acneic skin is even more prone to buildup of dead skin cells inside and at the opening of the follicles.

When accompanied by excess sebum, dead skin cells that build up in the follicle stick together and form an impaction plug, which provides a perfect anaerobic (without oxygen) environment for breakout-causing bacteria.



#### **Bacteria**

Scientists are still trying to understand more about the skin's microbiome (aka ecosystem of microorganisms), but we do know that some of its residents – the bacteria Propionibacterium acnes, or P. acnes – cause acne. When P. acnes become trapped in an anaerobic environment (a clogged follicle), they feed on sebum and generate free fatty acids as waste products. This irritates the follicle lining. At this point, the skin may show closed comedones (whiteheads) or open comedones (blackheads), which are non-inflammatory lesions.



#### **Inflammaging**

Inflamed lesions (papules, pustules, cysts, nodules) are the red, swollen, sometimes pus-filled breakouts that drive clients to seek help. These occur when the free fatty acids generated by P. acnes build up and expand the follicle, then rupture the follicle wall beneath the skin. Acneic skin is more permeable around the sebaceous gland and follicle, which may lead to leakage and inflammation into surrounding tissues.

If a break in the follicle is close to the surface, a pustule forms. If the break is deeper, a nodule forms. In some cases, a membrane entraps the infection and a cyst develops. In any case, matrix metalloproteinase (MMPs) enzymes are stimulated to help repair the damaged tissue and white blood cells invade the area.

Chronic, low-grade inflammation (inflammaging) can contribute to accelerated skin aging by breaking down collagen, compromising barrier function, slowing wound healing and generating post-inflammatory hyperpigmentation.



7 Active Clearing

#### Post-Inflammatory Hyperpigmentation (PIH)

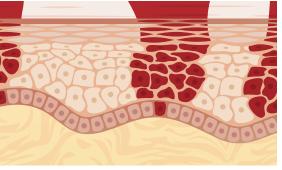
PIH is a common concern among adults with acne, as it creates dark marks that can remain for several weeks after a breakout has cleared. This not only prolongs the stressful experience of having adult acne, it causes uneven skin tone that accelerates the appearance of premature skin aging. PIH is especially common with darker skin tones.

PIH is discoloration of the skin that follows an inflammatory wound. This form of hyperpigmentation stems from skin melanocytes' exaggerated response to injury, however slight, which results in an abnormal distribution of melanin (pigment) in the tissues. Melanocyte activity is stimulated by the same inflammatory mediators that are activated when the skin's immune response is activated. What affects the skin's Langerhans cells, which help drive protective immune responses, generally will stimulate the melanocytes, and vice versa. When inflammation subsides, the inflammatory mediators revert to normal levels, and so does the production of melanin.

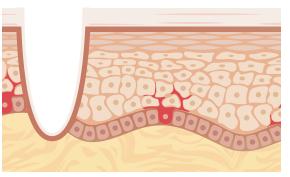
In due course, the cells causing hyperpigmentation rise to the stratum corneum and slough off, causing the hyperpigmentation to disappear. Depending on the depth of the inflammation or wound, hyperpigmentation will be evident in both the epidermis and the dermis. If it happens in the dermis, as in the case of severe inflammation, the pigments will not go through the slough-off process and can be stuck for many years or decades. This may account for the difficulty in treating post-inflammatory pigmentation associated with deeper scar tissue.

#### Is it PIH or a scar?

Clients often refer to PIH as a scar, so it's important to help them distinguish between the two. PIH is characterized by skin discoloration ranging from pink to black. PIH can be associated with scarring but can also occur on a flat area of the skin. Most PIH can be reduced over time with regular application of exfoliants or ingredients such as Hexylresorcinol and Niacinamide (Vitamin B<sub>3</sub>). Scarring is characterized by skin atrophy, usually seen as a depressed or raised area that results from loss or overgrowth of tissue. Scarring cannot be sufficiently resolved through skin care alone.



PIH



scar

### top causes of adult acne

#### **Stress**

Today's busy world is taking a toll on our skin. The increased pressure to do more, faster is causing chronic internal and external stress on already-sensitive adult skin. Acne is one of the first signs of this stress, which ultimately accelerates skin aging.

Adult acne is significantly associated with internal stress levels. Research has shown that not only can internal stress trigger breakouts, it can make existing breakouts worse. Stressing over the breakouts themselves can then cause more stress, which leads to more breakouts.



Recent research has demonstrated that the skin actively participates in stress response, communicates with the brain and vice-versa, and that there are major stress mediators in the skin.

Chronic, continual stress increases levels of stress-related hormones, such as corticotrophin-releasing hormone (CRH), cortisol and adrenal androgens, which send sebaceous glands into overdrive. This leads to excess sebum, which mixes with dead skin cells and P. acnes to clog follicles, leading to breakouts. Stress-related hormones also inflame the skin, causing redness and itching.

When skin is stressed, it loses some of its ability to protect itself because its barrier becomes compromised. For adults, this can lead to further complications. Stress damages collagen, causing wrinkles. Cortisol also lowers natural production of Hyaluronic Acid, which dehydrates skin. Combine dehydration with excess sebum and you have an imbalanced microbiome, a perfect breeding ground for breakouts.



#### **Lifestyle Habits**

Smoking, under-cleansing, wearing tight or itchy clothing, taking certain medications – all these are lifestyle habits that can affect the severity of one's breakouts. Hair, make-up or skin care products that contain comedogenic ingredients can lead to clogged follicles. Picking or squeezing breakouts at home can also spread P. acnes. Getting excessive acne treatments can worsen inflammation, dryness and sensitivity around breakouts, making them appear redder and flakier.



#### Genetics

Acne tends to run in the family. While there isn't a specific acne gene, some people have a hereditary tendency to overproduce skin cells or sebum, which can increase the likelihood that they will have clogged follicles, which can lead to breakouts.



Research has linked the sebaceous glands to the endocrine system, referring to the former as the "brain of the skin."

We know that there is a relationship between testosterone and the sebaceous glands. In men, testosterone is secreted by the male sexual organs, and in women it originates from the ovaries and adrenal glands. In both sexes, testosterone enters into the sebaceous gland where enzymes convert it into di-hydrotestosterone. This stimulates increased sebum production and stickier sebum.



We also know that stress plays a significant role when it comes to hormones. When the body produces excessive amounts of cortisol and adrenalin, not only can sebaceous glands become overstimulated, adrenal glands can produce less progesterone – which is a natural anti-anxiety, antidepressant substance. This hormonal shift can lead to an imbalance in estrogen and progesterone, which may lead to breakouts.

Adult women are five times more likely than men to be affected by acne due to fluctuating hormones. Women tend to experience hormonal fluctuations and acne around the time of menstruation, pregnancy, and menopause. Also, when present, Polycystic Ovary Syndrome is a main cause of adult acne in women.



#### **Environmental Assault**

Sun exposure, pollution, local environment and extreme weather can compromise the skin barrier and trigger or worsen issues such as inflammation, hyperpigmentation, dryness and dehydration, which can make acne appear worse. Adult women who have acneic skin may be even more vulnerable for two reasons; acneic skin is deficient in Linoleic Acid (Vitamin F), an omega-6 essential fatty acid that plays an important role in wound healing, cell regeneration and skin hydration. Adult women are also more likely to have dry skin, which results from a compromised skin barrier, as they get older.



#### **Diet**

The skin experts at Dermalogica and The International Dermal Institute support the stance that what you eat affects your skin. While more research is needed in this area, studies suggest that food may influence sebum production and inflammation. Low-glycemic diets, which typically include a variety of fruits and vegetables, lean protein, and healthy fats, are recommended. Clients also have reported seeing an improvement in their skin after avoiding foods to which they might be sensitive, such as dairy.

# how to treat adult acne

As a professional skin therapist, the first and most important thing you can do for a client with adult acne is answer their questions in a helpful way. This is step one toward becoming their trusted guide, and maintaining their trust throughout your relationship. Educating yourself as much as possible on adult acne will go a long way toward helping your client.

The next most important thing you can do is investigate what might be causing your client's acne so you can treat it effectively. Start with a thorough Face Mapping® skin analysis. (Refer to your Face Mapping skin analysis training materials for more information.) As you evaluate your client's skin and identify where they are experiencing breakouts, ask friendly, open-ended questions about their lifestyle so you can gather more insight. For example, what is their stress level like? What is their daily routine like? What has changed lately? How is their reproductive health? Who else in their family has acne? Their answers, combined with your visual analysis of their skin, will reveal both internal and external factors that may be contributing to their acne. This will help you recommend the right products, lifestyle adjustments (if necessary) and further treatment options.

Let your client know that it's completely normal for their skin to change with the seasons, their health and their lifestyle – and that you'd like them to come back for another complimentary Face Mapping skin analysis should they need more help.



# why active clearing?

Active Clearing formulas harness the best of nature and science to control breakouts and reduce the appearance of related skin aging. Because of adult skin's potential for skin-aging post-inflammatory hyperpigmentation, having products that address breakouts and aging simultaneously helps streamline treatment – which is important in today's fast-paced environment. These formulas are extremely effective because they counter factors that contribute to breakouts and post-inflammatory hyperpigmentation, as well as improve the health of the skin barrier.

**NEW AGE Bright Clearing Serum** and **AGE Bright Spot Fader** are multitasking clearing-and-brightening formulas that help accelerate skin cell turnover to combat cell accumulation and reduce breakout-causing bacteria while promoting even skin tone.

All other Active Clearing products help clear breakouts and visible signs of premature skin aging by:

- Reducing excess sebum, which diminishes the food source for P. acnes bacteria along with oily shine.
- Stimulating natural exfoliation superficially as well as in the follicle lining to reduce and prevent cell accumulation. This helps eliminate the impaction of follicles, which triggers the early stages of comedone formation.
- Controlling P. acnes bacteria on the skin's surface and in the follicle, which helps promote clear skin.
- **Stopping inflammaging** before it starts by helping to protect skin from environmental assault, promoting barrier health and soothing skin.



#### - What is in the AGE Bright™ Complex?

This blend of actives and essential oils works with the skin's natural microbiome to promote clearer, brighter skin. Terpineol (isolated from Pinus Sylvestris, or Pine Oil) and Thymol (from Thymus Vulgaris, or Thyme) help reduce P. acnes and sebum while Niacinamide (Vitamin B<sub>3</sub>) helps reduce visible skin aging by fading post-inflammatory hyperpigmentation.





#### **NEW!**

## AGE bright clearing serum

#### why your clients need it

AGE Bright Clearing Serum is a must for adults who regularly experience both breakouts and uneven skin tone.

#### what it is

This two-in-one brightening and clearing serum clears and helps prevent breakouts while reducing visible skin aging.

#### key ingredients and benefits

- Salicylic Acid, a Beta Hydroxy Acid, reduces breakouts to clear skin.
- AGE Bright<sup>™</sup> Complex works with the skin's natural microbiome for clearer, brighter skin.
- Phytoactives from Resurrection Plant, known for its ability to survive extreme dehydration, hydrate and smooth skin.
- Niacinamide works together with White Shiitake Mushroom to promote brighter, more even skin tone.

#### application

Apply a thin layer on cleansed skin and allow to dry. Use all over the face and under recommended Dermalogica Moisturizer twice a day, as needed.



#### **NEW!**

## AGE bright spot fader

#### why your clients need it

AGE Bright Spot Fader is ideal for adults who are concerned about post-inflammatory hyperpigmentation from breakouts.

#### what it is

This two-in-one brightening spot treatment reduces the appearance of active breakouts and post-breakout marks.

#### key ingredients and benefits

- Salicylic Acid, a Beta Hydroxy Acid, reduces breakouts to clear skin.
- Niacinamide and Hexylresorcinol work synergistically to fade post-breakout marks, improving uneven skin tone.
- AGE Bright™ Complex reduces visible skin aging and helps prevent over-drying.

#### application

Apply directly upon first sign of breakout. Reapply twice a day until spot fades.

0 0 90 AGE bright spot fader

### clearing skin wash

#### why your clients need it

Adults with breakout-prone skin need a pH-balanced cleanser that will cleanse away excess skin cells without over-drying.

#### what it is

This foaming breakout clearing cleanser helps clear skin and reduce visible skin aging.

#### key ingredients and benefits

- Salicylic Acid stimulates natural exfoliation to help clear clogged follicles and smooth away dullness that contributes to visible skin aging.
- Menthol and Camphor help cool the skin.
- Contains extracts of Balm Mint, Eucalyptus and Tea Tree.
- Skin is left clean and prepped for optimal absorption of Active Clearing treatment ingredients.

#### application

Work a pea-sized amount into a lather in wet hands. Apply to dampened face and neck, massaging in circular motions while concentrating on areas of congestion and oiliness. Avoid eye area. Rinse thoroughly with warm water.



## overnight clearing gel

#### why your clients need it

This invisible overnight formula is ideal for reducing the appearance of active breakouts.

#### what it is

Nighttime gel helps clear breakouts and reduce visible skin aging.

#### key ingredients and benefits

- Salicylic Acid sloughs off pore-clogging skin cells to inhibit development of further breakouts.
- Tea Tree Oil soothes skin while you sleep.
- Contains Niacinamide, Biotin, Zinc Gluconate and Caffeine, as well as natural extracts of Meadowsweet. Yeast and Licorice.

#### application

At night, apply a thin layer all over cleansed face and allow to absorb.



## sebum clearing masque

#### why your clients need it

This deep treatment is for clients who need additional help reducing excess sebum.

#### what it is

Soothing clay masque helps clear breakouts and minimize premature signs of skin aging.

#### key ingredients and benefits

- Oil-absorbing clays help purify and detoxify oily skin.
- Salicylic Acid clears pore congestion.
- Calming botanicals such as Oat and Bisabolol help soothe aggravation brought on by breakouts.
- Safflower Oil helps counter fine dehydration lines.
- Contains Licorice and Niacinamide.

#### application

Apply a smooth layer to cleansed face and neck (avoiding the eye area) three times per week. May also be used exclusively on the T-zone. Leave on for 10 minutes, then rinse thoroughly with warm water.



## oil free matte spf30

#### why your clients need it

This mattifying formula is a must for adults who want to combat oily shine and defend against UV-induced skin aging.

#### what it is

This Broad Spectrum sunscreen and mattifying moisturizer in one helps prevent shine and skin aging on oily, breakout-prone skin.

#### key ingredients and benefits

- Lightweight, ultra-sheer formula contains an advanced blend of Zinc Gluconate, Caffeine, Niacinamide, Biotin and Yeast Extract.
- Oil absorbers help maintain an all-day matte finish, preventing shine without any powdery residue.
- **Sheer formula** provides defense against skin-aging UV light.

#### application

Apply liberally to face, preferably 30 minutes prior to sun exposure.



## niacinamide ionactive serum

professional use only

#### why your clients need it

This intensive treatment is great for adults who are concerned about breakouts, premature skin aging and pore visibility.

#### what it is

A concentrated clearing, ionizable serum that fights breakout-causing bacteria while helping to reduce blemishes and redness.

#### key ingredients and benefits

- 4% Niacinamide (Vitamin B<sub>3</sub>) helps clear breakouts, reduce sebum and decrease breakout-related post-inflammatory hyperpigmentation.
- Microencapsulated Potassium Azeloyl
   Diglycinate (Azelaic Acid) helps decrease excess sebum, inhibit bacteria, and remove follicle impaction plugs.
- Colloidal Silver helps control P. acnes.
- Polygonum Cuspidatum (Japanese Knotweed)
   Root Extract helps reduce excess sebum, inhibit P. acnes, minimize redness and decrease pore visibility.
- Melaleuca Alternifolia (Tea Tree) Extract helps control bacteria without over-drying skin.

#### professional application

Apply an almond-sized amount directly to the face, neck and chest or appropriate areas for your client. Spread lightly. Do not rub. For increased results, use with an optional electrical modality and/or massage into skin.



### powerclear peel

### professional use only

#### description

Potent Salicylic Acid-Mandelic Acid clearing peel with a patented Terpineol-Thymol Complex targets blemishes and visibly diminishes post-inflammatory hyperpigmentation.

#### benefits

- Helps prevent breakouts
- Reduces post-inflammatory hyperpigmentation
- Diminishes excess oil production

#### key ingredients

**2% Salicylic Acid** is a lipophilic BHA that penetrates comedones to help remove impaction plugs.

10% Mandelic Acid (from Bitter Almonds) and 15% Malic Acid (from Apples) dissolve cellular glue and speed up cell turnover rate to help even skin tone.

**Terpineol-Thymol Complex** helps suppress sebum production and works with skin's natural microbiome to kill breakout-causing bacteria in minutes.

Since Salicylic Acid is oil-soluble, it can both disrupt desmosomes and penetrate skin through the oil-laden sebaceous gland – making it an optimal treatment solution for oily and breakout-prone skin as well as mild Rosacea. PowerClear Peel's combination of Salicylic, Mandelic and Malic acids blends the benefits of BHAs and AHAs. Since Mandelic Acid is a larger AHA, it penetrates the epidermis more slowly, making it ideal for sensitive skin, severe breakouts and hyperpigmentation.



warnings: This product contains an Alpha Hydroxy Acid (AHA) that may increase your skin's sensitivity to the sun and particularly the possibility of sunburn. Use a sunscreen, wear protective clothing, and limit sun exposure while using this product and for a week afterwards. Use only as directed. Contact of the product with the skin must be of limited frequency or duration. Avoid contact with eyes. If irritation persists, discontinue use and consult a physician.

# client service and retail activation tools

The following tools and services are designed to help you educate your clients on the causes of adult acne and the benefits of **NEW AGE Bright Clearing Serum** and **AGE Bright Spot Fader** as well as the **Active Clearing** line. Use these tools to create an educational path toward retail purchases and/or service bookings, and share how-to advice that your clients can use at home.

#### clear + brighten facefit treatment

This 10-minute treatment featuring Active Clearing products is perfect for clients who can't wait to start clearing their breakouts and slowing visible signs of premature skin aging. It can be performed right at the Skin Bar®, giving you the opportunity to educate and delight your clients with tips about adult acne and the products that are best for their skin.

#### AGE bright clearing DIY

Teach your clients how to do this Dermalogica-exclusive facial massage at home. It helps promote the absorption of AGE Bright Clearing Serum into the skin, as well as gently stimulate lymphatic circulation, which helps remove toxins and promotes clear skin. Your clients will love the results – and have more confidence in the value of seeking professional advice from a Dermalogica skin therapist! Glide fingertips lightly and repeat each movement one time.



from center of



from bridge of nose over cheeks to front of the ears



from center of chin and upper lip to earlobes



rom center of hairline down sides of face and neck



# frequently asked questions

#### How is Active Clearing different from its predecessor, MediBac Clearing®?

MediBac Clearing focused on four physiological factors that contributed to breakouts while taking into account the unique needs of adult skin. Active Clearing offers the same benefits, plus the added benefits of brightening skin tone and reducing premature signs of skin aging such as post-inflammatory hyperpigmentation.

#### How is Active Clearing different from Daily Skin Health?

Daily Skin Health products for oily skin focus on controlling and managing sebum, whereas Active Clearing products focus on all five factors that contribute to breakouts and related skin aging for adults: overactive sebaceous glands, cell accumulation, bacteria, inflammaging, and post-inflammatory hyperpigmentation.

#### How is Active Clearing different from Clear Start™?

Active Clearing products are for adults whose primary concerns are breakouts and premature signs of skin aging. Clear Start products are for younger clients (including young adults), whose primary concerns are breakouts and oily skin.

#### What makes adult acne different from teen acne?

Adult acne is more inflammatory, with fewer comedones than teen acne, and lesions predominantly located around the mouth, chin and jaw line. Adult acne also tends to be more associated with chronic stress, fluctuating hormones, and premature signs of skin aging. Adult skin can take longer to heal than teen skin because skin cell turnover slows with age.

#### What products should I prescribe if I have an adult client who has oily skin, but very few problems with breakouts?

If, after performing a Face Mapping® skin analysis, you find no signs of inflammation but do find oily skin, prescribe products such as Active Moist or Oil Free Matte SPF30 for regular oil control as well as appropriate Active Clearing products such as Overnight Clearing Gel or AGE Bright Spot Fader to spot treat sporadic breakouts.

#### What if my clients return to me saying that an Active Clearing product has caused them to breakout even more than before?

When skin is introduced to a new treatment regimen, it can go through a period of adjustment. It is imperative that you let clients know that this adjustment phase is temporary as well as necessary, as the skin is working to detoxify itself as impurities are forced to the surface. This "purging" period is different from an allergic reaction. If your client appears to be allergic to an ingredient in a product, advise them to stop using it.

#### My client is pregnant and experiencing breakouts. Can I recommend Active Clearing?

Most Active Clearing products contain Salicylic Acid. Recommend pregnant clients to consult their physician first before using these products.

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