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. 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, which is generally mild to moderate in severity. Lesions tend to be inflammatory, with fewer comedones than adolescent acne. Breakouts tend to occur along the mandibular region (mouth, chin and jaw line), the sides of the neck, and sometimes the chest. 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.
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 acne, or P. acne – cause acne. When P. acne becomes trapped in an anaerobic environment (a clogged follicle), they feed on sebum and generate free fatty acids as waste products. This initiates 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. acne 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.

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 seen for many years or decades. This may account for the difficulty in treating post-inflammatory pigmentation associated with deeper scar tissue.

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 Hesperidin and Niacinamide (Vitamin B3). 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.
clearing skin wash

don't stop here. continue cleansing with an oil-free treatment to further clear skin.

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, breakouts and oiliness. Avoid eye area. Rinse thoroughly with warm water.

Professional application
1. Perform the Dermalogica Double Cleanse that begins with PreCleanse.

Note:
Upon beginning second cleanse with Clearing Skin Wash, steam may be used to facilitate the cleansing process by further softening the skin.

2. Lather Clearing Skin Wash and apply with a flowing effleurage, spreading movement over the entire face, throat and upper décolleté.

3. Damp sponges or steam towels should be used to remove all traces of cleanser.

Contraindications for use
Product contains Salicylic Acid and may irritate very sensitive skin. Discontinue use if client experiences undue redness or burning. Not for those who currently take acne medication. For external use only. Avoid contact with eyes. If irritation develops, discontinue use.

key ingredients
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.
Melissa Officinalis (Balm Mint) Leaf Extract and Melaleuca Alternifolia (Tea Tree) Leaf Oil: known for antiseptic, analgesic, anti-bacterial and skin-soothing properties.
Eucalyptus Globulus Leaf Extract: liquid from the leaves of Eucalyptus Tree. Often used as an antiseptic.

benefits / top retailing points
Reduces breakouts to help clear skin.
Brightens and fades pigmentation.
Reduces the appearance of skin aging.

sebum clearing masque

don’t stop here. apply an oil-free moisturizer to seal in hydration.

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.

Contraindications for use
Product contains Salicylic Acid and may irritate very sensitive skin. Discontinue use if client experiences undue redness or burning. Not for those who currently take acne medication. For external use only. Avoid contact with eyes. If irritation develops, discontinue use.

Key ingredients
Salicylic Acid: helps clear clogged follicles, which contribute to breakouts.
Bentonite and Kaolin: clays that help absorb excess oil, refine pores and clear congestion.
Avène Sativa (Oat) Kernel Extract and Bisabolol: help soothe aggravation brought on by breakouts.
Carthamus Tinctorius (Safflower) Seed Oil: helps counter fine dehydration lines.
Dipotassium Glycyrrhizate (Licorice): known to have soothing properties.
Niacinamide: known to help control sebum and scavenge free radicals.

benefits / top retailing points
Reduces breakouts to help clear skin.
Brightens and fades pigmentation.
Reduces the appearance of skin aging.
**age bright clearing serum**

**description**
A two-in-one brightening and clearing serum that clears and helps prevent breakouts while reducing visible skin aging.

**top products to prescribe**
- AGE Bright Spot Fader
- Oil Free Matte SPF30

**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.

**contraindications for use**
Product contains Salicylic Acid and may irritate very sensitive skin. Discontinue use if client experiences undue redness or burning. Not for those who currently take acne medication. For external use only. Avoid contact with eyes. If irritation develops, discontinue use.

**key ingredients**
- **Salicylic Acid**: a Beta Hydroxy Acid that reduces breakouts to clear skin.
- **AGE Bright™ Complex**: 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 B3) helps reduce visible skin aging by fading post-inflamatory hyperpigmentation.
- **Phytoactives from Resurrection Plant**: hydrate and smooth skin. The Resurrection Plant is known for its ability to survive extreme dehydration.
- **White Shiitake Mushroom**: works together with Niacinamide in AGE Bright™ Complex to promote brighter, more even skin tone.

**benefits / top retailing points**
- Helps clear and prevent breakouts.
- Promotes brighter, even skin tone to reduce visible signs of premature skin aging.
- Hydrates and smooths skin.

**skin condition**
Breakout-prone, prematurely-aging skin.

**age bright spot fader**

**description**
A two-in-one brightening spot treatment that reduces the appearance of active breakouts and post-breakout marks.

**top products to prescribe**
- AGE Bright Clearing Serum
- Oil Free Matte SPF30

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

**contraindications for use**
Product contains Salicylic Acid and may irritate very sensitive skin. Discontinue use if client experiences undue redness or burning. Not for those who currently take acne medication. For external use only. Avoid contact with eyes. If irritation develops, discontinue use.

**key ingredients**
- **Salicylic Acid**: a Beta Hydroxy Acid, reduces breakouts to clear skin.
- **AGE Bright™ Complex**: reduces visible skin aging and helps prevent over-drying of the skin. Contains: Terpineol (isolated from Pinus Sylvestris, or Pine Oil), Thymol (from Thymus Vulgaris, or Thyme), and Niacinamide (Vitamin B3).
- **Hexylresorcinol**: works synergistically with Niacinamide in AGE Bright™ Complex to fade post-breakout marks (post-inflammatory hyperpigmentation), improving uneven skin tone.

**benefits / top retailing points**
- Helps clear active breakouts and prevent related post-inflammatory hyperpigmentation.
- Promotes brighter, more even skin tone to help reduce the appearance of premature skin aging.
overnight clearing gel

application
At night, apply a thin layer all over cleansed face and allow to absorb. In the morning, wash off with recommended Dermalogica Cleanser.

description
An invisible nighttime gel that helps clear breakouts and reduce visible skin aging.

contraindications for use
Product contains Salicylic Acid and may irritate very sensitive skin. Discontinue use if client experiences undue redness or burning. Not for those who currently take acne medication. For external use only. Avoid contact with eyes. If irritation develops, discontinue use.

top products to prescribe
• Clearing Skin Wash
• Sebum Clearing Masque

key ingredients
Salicylic Acid: sloughs off pore-clogging skin cells to inhibit development of further breakouts.
Melaleuca Alternifolia (Tea Tree) Leaf Oil: soothes skin while your client sleeps.
Niacinamide, Biotin, Zinc Gluconate and Caffeine: known for purifying and soothing properties.
Spiraea Ulmaria (Meadowsweet), Yeast and Dipotassium Glycyrrhizate (Licorice): natural extracts, known for purifying properties.

benefits / top retailing points
Helps clear clogged follicles, which contribute to breakouts. May be applied all over the face or to select zones experiencing breakouts and congestion (e.g., the jaw area).

oil free matte spf30

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

description
A Broad Spectrum sunscreen and mattifying moisturizer in one that helps prevent shine and skin aging.

warnings
For external use only. Do not use on damaged or broken skin. Avoid contact with eyes. If contact occurs, flush with water. Apply prior to sun exposure and reapply often. Discontinue use if skin irritation develops. Do not use on infants under 6 months. Contains Benzophenone-3.

active ingredients
Chemical sunscreens:
• Avobenzone
• Homosalate
• Octisalate
• Oxybenzone

key ingredients
Niacinamide, Biotin, Zinc Gluconate, Caffeine and Yeast: Advanced blend of ingredients known for their purifying properties.
Oil absorbers help maintain an all-day matte finish, preventing shine without any powdery residue.

benefits / top retailing points
Lightweight, ultra-sheer formula provides defense against skin-aging UV light. Mattifies oily shine. Oil-free formula is perfect for oil-phobic clients.