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Ingredients: Only Half the Recipe – *Part 1*

by Lyn Ross L.M.E.

Knowing how to use the ingredients in a recipe is just as important as having all the ingredients. Flip through any recipe book and you will find many different ways to mix the same ingredients for radically different results. Knowing your cosmeceutical ingredients is much the same. Most individuals have a combination of skin types plus one or more skin conditions. The correct identification of skin color, skin type, and condition is the key to successful cosmeceutical product selection and treatment.



Determining the state of the skin can be difficult, so I recommend studying information about common skin conditions that are within the scope of practice for aestheticians. I also recommend going a bit further into the study of skin diseases to know when to refer clients to a medical specialist for treatment. Creating a process that includes skin type, color, and severity of skin condition is the key to developing an appropriate in clinic and home care treatment plan.

Essential tools for skin analysis are the Woods' Lamp, Skin Scanner (my favorite), and of course the Magnifying Loop. There are other advanced apparatuses for skin typing but these are the most cost effective for the practical skin care specialist.

Understanding skin types is essential for corrective treatment of the skin because individual type will determine tolerance for skin rejuvenation. We inherit our skin type from our parents and ancestors. The individual characteristics of your skin are pre-programmed in the cells biological DNA.

Assessing Skin Types

When performing a skin type evaluation the most important consideration is sebum production.

There are four basic categories of skin types with unique characteristics: Normal, dry, oily, and combination skin.

Normal Skin

- Balanced sebum production
- Balanced moisture content
- Medium texture
- Refined appearance

Dry Skin

- Lack of sebum production
- Lack of moisture content
- Fine texture
- Delicate thin appearance

Oily Skin

- Excessive sebum production
- Adequate moisture content
- Thick texture
- Shiny appearance

Combination Skin

- Dry zones – medium/fine texture
- Oily zones – medium/thick texture
- Unbalanced moisture content
- Combination of oily/dry appearance

After analyzing the skin type you must determine the skin color to avoid post-inflammatory complications like hyper-pigmentation or acne from resurfacing peels or mechanical devices used for skin rejuvenation.

Assessing Skin Color

Knowing the origin of birth is essential for matching the client's skin color to the Fitzpatrick Scale. Dermatologists use the Fitzpatrick Classification Scale to classify a person's complexion and tolerance to sunlight.

Fitzpatrick Classification Scale

- **Type I** – Celts, Scots, and Irish origin with red hair and very white or freckled skin, always burns with sun exposure.
- **Type II** – Blue-eyed Caucasians, Scandinavians with white skin, usually burns with sun exposure.
- **Type III** – Darker Caucasians with white or olive skin tone, sometimes burns with sun exposure.
- **Type IV** – Mediterranean, Middle Eastern, Latin American, Asian, African, and Australian Native with brown skin, very rarely burns with sun exposure.
- **Type V** – Middle Eastern, African with dark brown skin, very rarely burns with sun exposure.
- **Type VI** – African with black skin never burns with sun exposure.

Matching surface changes to medical classifications help greatly when developing the treatment plan for optimal skin rejuvenating results. Discussing potential side effects from the treatment also helps in the treatment selection process as the client lifestyle will determine tolerance to healing and

recovery times. I call this managing the client's expectations which are so important to establishing trust for long-term treatment plans.

Assessing Skin Conditions

Classifying skin conditions in levels (light, medium, and deep) to determine depth of correction, will allow you to select the appropriate peel solution and mechanical device needed to rejuvenate the skin.

Glogau Aging Classification Scale

This scale helps to identify the client's rate of aging and provides a tool for measuring the degree of possible skin rejuvenation needed as well as managing realistic expectations. Use this tool to educate your clients about the need to take precautions from UV radiation exposure. When you are evaluating inevitable age-related changes in the skin, take into consideration both intrinsic and extrinsic factors.

- **Intrinsic** – Chronological aging determined by your pre-coded DNA. Intrinsic or chronological aging is a function of the body's metabolic processes naturally slowing down which decreases the rate of new cell production. Individuals will age at different rates due to heredity, lifestyle choices, and extrinsic conditions.
- **Extrinsic** – Biological aging determined by your lifestyle mostly exposure to the sun. Extrinsic or environmental exposures affect skin aging and can be controlled. Biological elements affecting skin are: Nutrient deficiencies, sun exposure, air pollution, extreme weight loss, medications, physical activity, and emotional health.



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Glogau Type I (age 28 - 35)

Typical Attributes

- Minimal to no discoloration or wrinkling
- No keratosis (skin over-growths)
- Generally no need for foundation or makeup

Glogau Type II (age 35 - 50)

Typical Attributes

- Wrinkling as skin moves
- Slight lines near the eyes and mouth
- Usually a need for some foundation
- No visible keratosis

Glogau Type III (age 50 - 65)

Typical Attributes

- Visible wrinkles all the time
- Noticeable discolorations
- Visible keratosis
- Generally a need for heavy foundation

Glogau Type IV (65 - 70 and over)

Typical Attributes

- Wrinkles throughout
- Yellow or gray color to skin
- Potentially prior skin cancer
- Makeup not usable because it cakes and cracks

Cosmeceutical Ingredients Effective in the Treatment of Aging Skin:

Glycolic Acid Polymer – alpha hydroxy acid (AHA) derived from sugarcane that increases desquamation to refine the skin's surface.

L-Ascorbic Acid – the most effective aqueous topical vitamin C to prevent premature aging.

Lactic Acid – an alternative to glycolic acid derived from sour milk increases cellular desquamation for sensitive and aging skin.

L-Retinol – a pro-drug that can be converted to retinoic acid by the skin to promote the normalization of epithelial desquamation reducing cellular cohesion.

Matrixyl 3000™ (Palmitoyl Oligopeptide, Palmitoyl Tetrapeptide-7) – derived from fatty acids synthesis collagen and fibronectan reducing wrinkle density and volume.

Black Currant Seed Oil – essential fatty acid antioxidants with skin hydrating benefits.

Apricot Kernel Oil – increases cellular hydration and moisture retention for prematurely aged skin and skin that is dry and irritated. High in vitamin A and minerals, Apricot Kernel Oil has an excellent texture that is great for all skin types to soften rough dry skin.



Glogau Treatments and Products

Glogau Treatments and Products			
Type 1		Type 2	
Age 28 - 35		Age 35 - 50	
In-Clinical Treatments	Take Home Products	In-Clinical Treatments	Take Home Products
Primary cleansing facial, enzyme and AHA/BHA acid peels, and renewing facial with microdermabrasion	Cleanser, toner, sun protection, serum, moisturizer, and exfoliator	Primary cleansing facial, enzyme and AHA/BHA acid and chemical peels, renewing facial with microdermabrasion, microcurrent, and IPL photo facial	Cleanser, toner, sun protection, serum, moisturizer, exfoliator, and mask
Type 3		Type 4	
Age 50 - 65		Age 65 - 70 and over	
In-Clinical Treatments	Take Home Products	In-Clinical Treatments	Take Home Products
Primary cleansing facial, enzyme and AHA/BHA acid and chemical peels, facial with microdermabrasion, microcurrent, and IPL photo facial	Cleanser, toner, sun protection, serum, moisturizer, exfoliator, and mask	Primary cleansing facial, enzyme and AHA/BHA acid and chemical peels, renewing facial, microcurrent, and IPL photo facial	Cleanser, toner, sun protection, serum, moisturizer, exfoliator, and mask

Rice Bran Oil – contains high levels of tocotrienol antioxidants to defend against free radicals generated in the skin by UV rays. It prevents skin aging and damage by oxidative UV rays.

Corn Silk – a rich source of vitamin K to diminish dark circles under the eyes and reduce the appearance of fine lines and wrinkles.

Enzymes – categorized as proteases; proteolytic enzymes, break down keratinized protein molecules. As biocatalysts, which literally mean either beginning a cellular action or causing a reaction, enzymes are capable of affecting changes in the appearance of the skin such as releasing dead skin cells to decongest clogged pores and soften wrinkles. They also act as protectants, capturing free radicals preventing damage to the skin caused by environmental pollution, smoking, bacteria, sunlight, and other harmful factors.

Epidermal Growth Factor (EGF) – 53 amino acids that accelerate epidermal cell proliferation and facilitate the resolution of inflammation following wounding.

Squalene – derived from olive oil and used as an antioxidant to prevent dehydration softening the appearance of fine lines and wrinkles.

Trichloroacetic Acid (TCA) – found in fermented apple cider, wine, grain, malt, rice, or potato mashes is known as an ethanoic acid, an organic chemical compound. Considered to be the “Gold Standard” of peeling agents, TCA coagulates stratum corneum proteins causing a mild sloughing of photo-damaged epidermal cell layers to improve fine surface wrinkles superficial blemishes and pigment problems.

Kligman Acne Classification Scale

Acne is a disorder of the sebaceous glands that presents a variety of lesions; blackheads, pimples, pustules, papules, cysts, and nodules on the face, chest, and back. These lesions are classified as Acne Grades I, II, III, and IV to identify their type as mild, moderate, or severe for appropriate treatment. Acne occurs as a result of excessive sebum (oil) production mixing with keratinized (dead) cells in the pilosebaceous unit (hair follicle). This creates a microplug or intra-cellular adhesion called a comedone. Comedones: The plural of comedo, are the primary sign of acne, consisting of a dilated (widened) hair follicle filled with keratin squamae (skin debris), bacteria, and sebum (oil).

Comedones may be closed or open. A closed comedo has an obstructed opening to the skin and may rupture to cause a low-grade inflammatory reaction in the skin. The common name for a closed comedo is a whitehead. An open comedo has a wide opening to the skin and is capped with a blackened mass of skin debris. It is commonly known as a blackhead. Acne occurs when sebaceous glands of the skin begin to secrete oil during puberty. These glands are stimulated by male hormones that are produced in the adrenal glands of both boys and girls.

When analyzing the acneic skin condition, dermatologists classify it into four grades. They evaluate the types of comedones present, amount of inflammation present, breakout severity, how widespread the acne is, and what areas of the body are affected. Grades of acne are classified as follows:

Kligman Grade I – Acne consists predominantly of whiteheads and blackheads with an occasional inflam-

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Kligman Treatments and Products

Grade 1	
Age 28 - 35	
In-Clinical Treatments	Take Home Products
Primary cleansing facial, enzyme and AHA/BHA acid and clarifying facial with microdermabrasion	Cleanser, toner, sun protection, serum, moisturizer, and exfoliator
Grade 2	
Age 35 - 50	
In-Clinical Treatments	Take Home Products
Primary cleansing facial, enzyme and AHA/BHA acid and chemical peels, clarifying facial with microdermabrasion, and IPL photo facial	Cleanser, toner, sun protection, serum, moisturizer, exfoliator, and mask
Grade 3	
Age 50 - 65	
In-Clinical Treatments	Take Home Products
Primary cleansing facial, enzyme and AHA/BHA acid and chemical peels, clarifying facial with microdermabrasion, and IPL photo facial	Cleanser, toner, sun protection, serum, moisturizer, exfoliator, and mask
Grade 4	
Age 65 - 70 and over	
In-Clinical Treatments	Take Home Products
Primary cleansing facial, enzyme and AHA/BHA acid and chemical peels, clarifying facial, and IPL photo facial	Cleanser, toner, sun protection, serum, moisturizer, exfoliator, and mask

matory lesion. Usually the number of lesions (counting just one side of the face) is less than 25.

Kligman Grade II – Acne, also referred to as "maturation arrest" acne, is the most difficult type to evaluate and treat. The face is studded with many whiteheads. The Grade II person's skin may look clear from a distance, but up close the skin feels rough. The lesion count usually reveals from 50 to 100 whiteheads. You may have to pull the skin tight to see them. There may be an occasional inflammatory lesion, especially if these lesions are picked or manipulated.

Kligman Grade III – Acne is very common. In addition to a mixture of whiteheads and blackheads (Grade I), there are a constant number of inflammatory lesions (Grade II) and usually around three to 10 papules and pustules at any one time.



Kligman Grade IV – Acne is often referred to as cystic acne. The face displays all of the above symptoms plus lesions, nodules, and cysts. The Grade IV acne case usually requires medical intervention and often responds well to a combination of aesthetic and medical treatments.

Cosmeceutical Ingredients Effective in the Treatment of Acne:

Totaryl – derived from the totara tree in New Zealand, used as an antibacterial, and a gentle alternative to benzoyl peroxide.

Salicylic Acid – beta hydroxy acid (BHA) derived from wintergreen leaves provides antioxidant, and anti-inflammatory benefits.

Glycolic Acid Polymer – alpha hydroxy acid (AHA) derived from sugarcane increases desquamation to decongest clogged pores.

Sodium PC – a non-comedogenic natural humectant and effective moisture binding agent to preserve the natural moisturizing factor (NMF) of the skin.

Azelaic Acid – an anti-keratinizing and anti-inflammatory agent derived from potato and unsaturated fatty acids found in milk fats effective in the treatment of acne and rosacea.

Caprylic/Capric Triglyceride – a saturated fatty acid derived from coconut milk used as an antibacterial moisturizer to protect the epidermal barrier.

Grape Fruit Peel Oil – high in flavonoids and vitamin C, antiseptic, astringent, anti-inflammatory, soothes and tones oily acne skin.

Hydrogen Peroxide – a potent antiseptic and germicidal that kills *Propionibacterium acnes* (P. acne bacteria).

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Pumpkin Enzymes – an antioxidant rich non-abrasive retinoic and alpha hydroxy acid exfoliator used to accelerate cell renewal, decongest clogged pores, heal oily acne breakout, and refine the skins surface.

Sulfur – a chemical element that is a gentle drying and healing agent for acne breakouts.

Tea Tree Oil – anti-inflammatory and antibacterial shown to be effective in controlling the edema often associated with acne, supports cellular regeneration, and wound healing.

Camphor – derived from the camphor tree and used for its antiseptic, soothing, and purifying properties.

Fumaric Acid – an antioxidant that supplies energy to the cells to produce more oxygen in the epidermis, also has tissue-preserving qualities.

Other considerations prior to developing the treatment plan will be the age and heredity of your client. This is key to consider for the long-term treatment of acne because if your client is young, perhaps 12 or 13, and has Grade I acne, but an older brother or sister developed a more severe grade of acne, you may eventually need to advance them to a Grade III program to prevent a more severe acne from developing as they mature. On the other hand, if your client is a Grade

I at age 17 or 18, they are not likely to flare up into a higher grade. You can stick to the Grade I schedule and it will work well for your client. Other factors that could indicate the need to adjust your treatment are very oil skin, very dry skin, ethnic skin, and adult women's special skin problems. First decide which of the four grades of acne your client falls into and develop your treatment plan accordingly.



Lyn Ross, president and founder of the Atlanta-based Institut' DERMEd, is a Georgia-Board Certified master aesthetician, entrepreneur, and an innovator. Utilizing 23 years in skin care as a trainer and teacher, Ross has combined educational opportunities, approaches, and products to create a unique MediClinical skin care salon that continues to set trends in beauty and fitness industries. Two Atlanta locations, a teaching institute, and an emerging franchise later, she is now offering clients a full range of skin care services and a therapeutic line of cosmeceuticals that contain the highest concentration of active ingredients available without prescriptions. In Fall 2001, Ross renamed her spas Institut' DERMEd, formerly known as Dermess, to reflect the importance she places on educating clients and her staff. lross@idermed.com

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