



Demystifying Skin Care for Massage Therapists Chapter 5

Created by Nina Howard, Founder and Master Trainer

Adapted and Edited by Kathryn Myers, CEO Bellanina Institute

**BELLANINA INSTITUTE for Skin and Body
Rejuvenation**
www.bellaninainstitute.com 1 800 235 2844

Product Ingredients History

- * Earliest formulations date back to 3000 B.C.
- * Red Iron Oxide – used for lip tints, rouge and cave painting
- * Malachite – a copper-based green ore used for eye paint
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- * Solvents (carrier/penetrate)
- * Surfactants (cleansers)
- * Emollients (moisture)
- * Thickeners
- * Preservatives
- * Color
- * Fragrance

- * **Purified Water** - dissolves many of the ingredients that impart skin benefits, such as conditioning agents and cleansing agents. Water also forms emulsions in which the oil and water components of the product are combined to form creams and lotions.
- * **Alcohol** - used as a solvent for astringents such as facial toner and aftershave, some antiseptics, perfumes, hair sprays and hair revitalizers.



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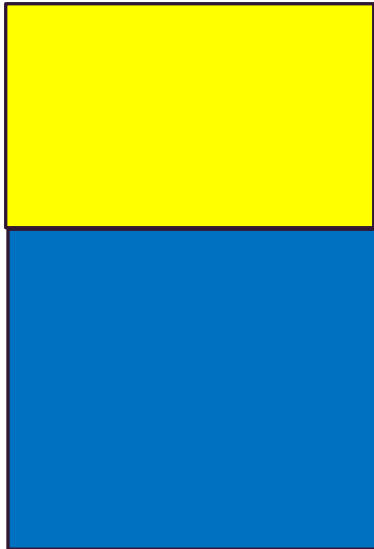
An emulsion

- * is a fine dispersion of two liquids that would not normally mix together like oil and water
- * is small droplets of water dispersed in oil or small droplets of oil dispersed in water

Most creams and lotions are emulsions

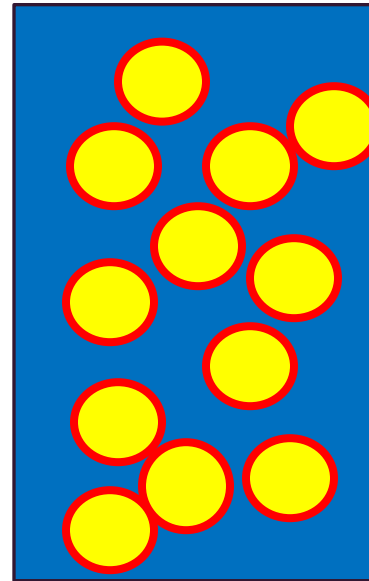


Oil and water –
no emulsifier



Oil droplets (yellow) clump together and separate from the water (blue). The oil forms a layer that then sits on the surface of the water.

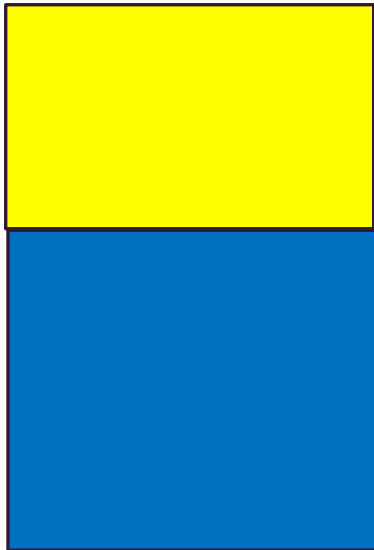
Oil and water –
with emulsifier



The emulsifier (red) coats the oil droplets (yellow) and allows them to be dispersed in the water (blue). It stops them from clumping together.

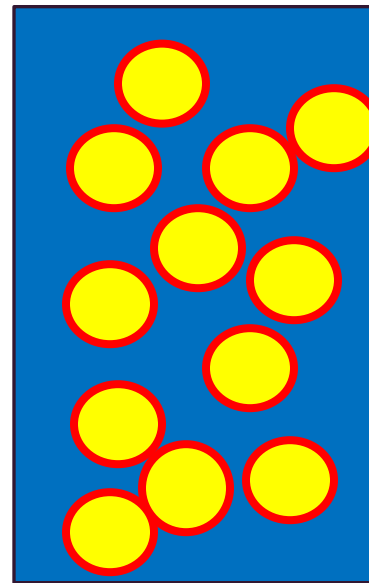
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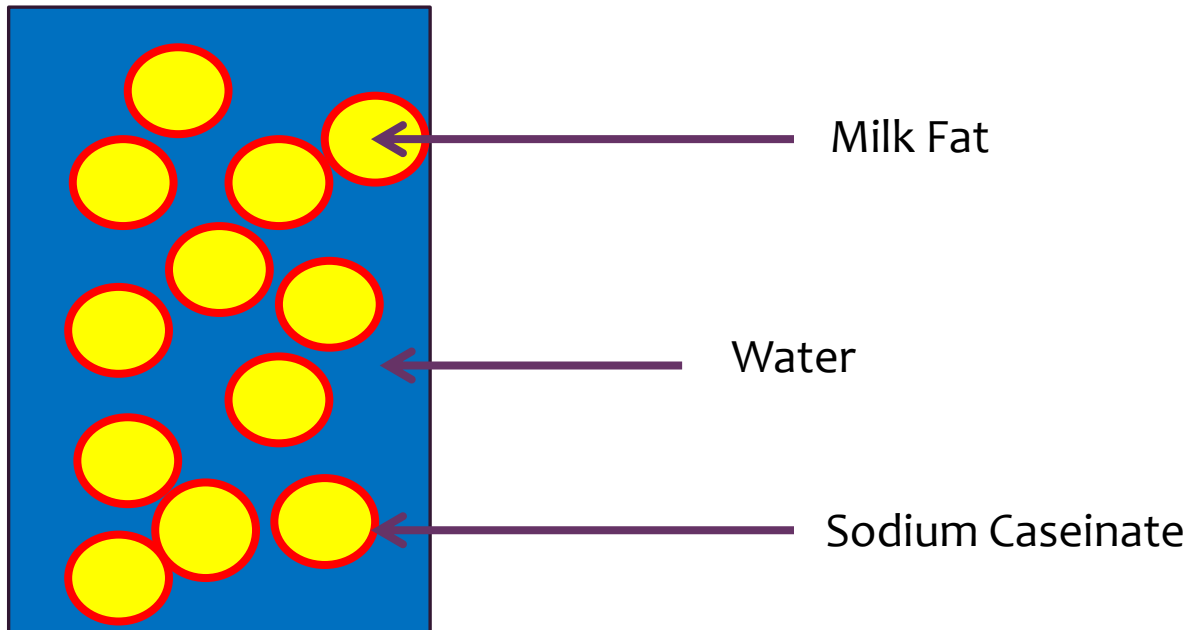
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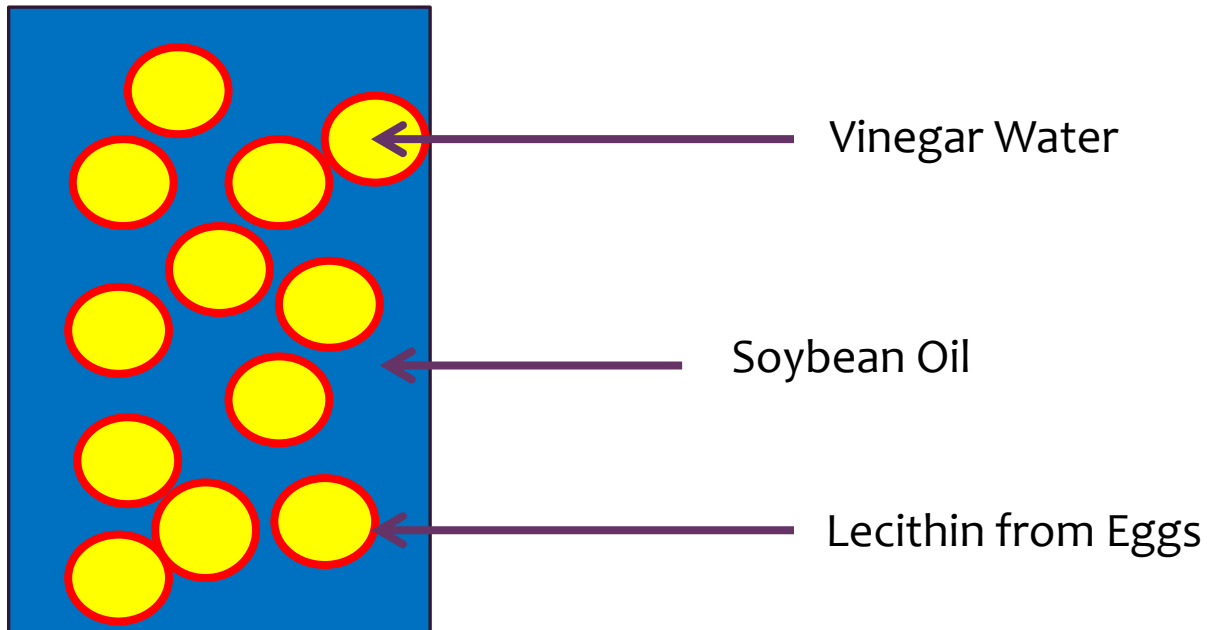
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Oil in water emulsion - Homogenized Milk



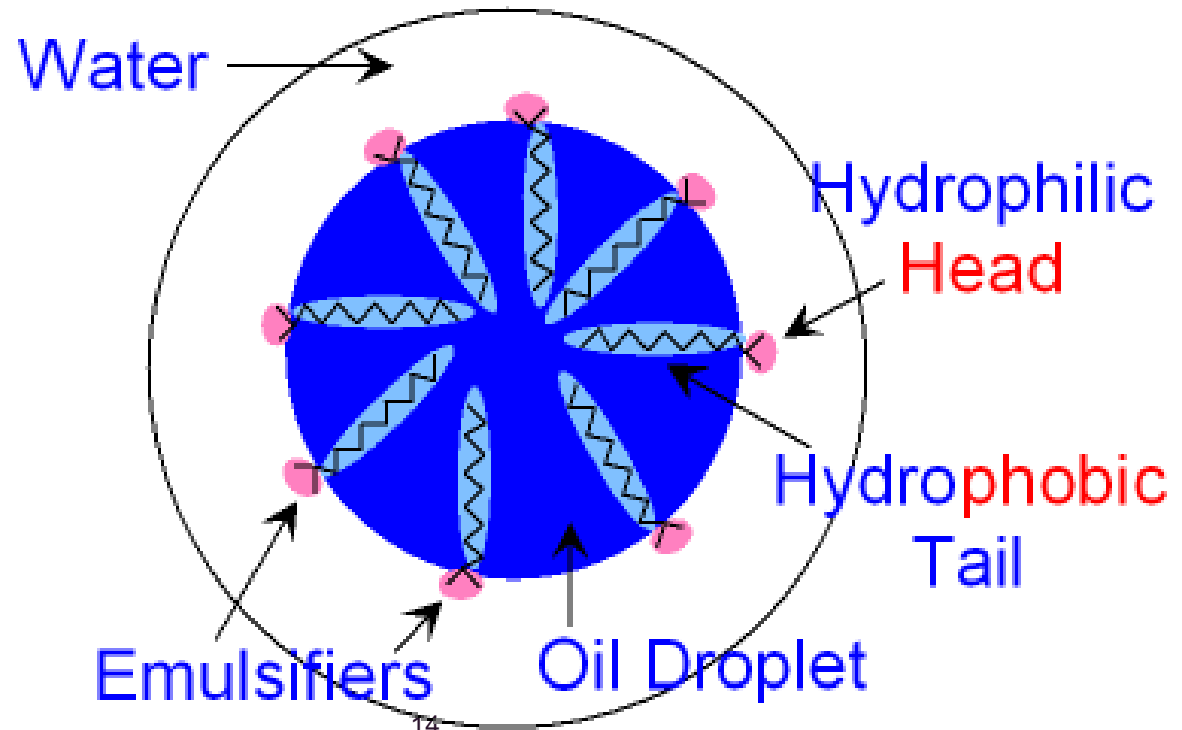
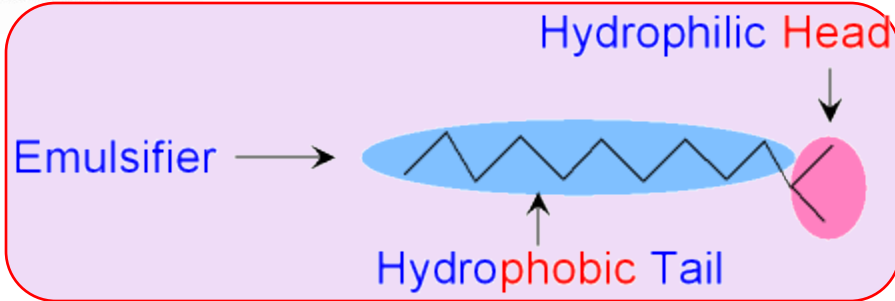
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Water in oil emulsion - Mayonnaise

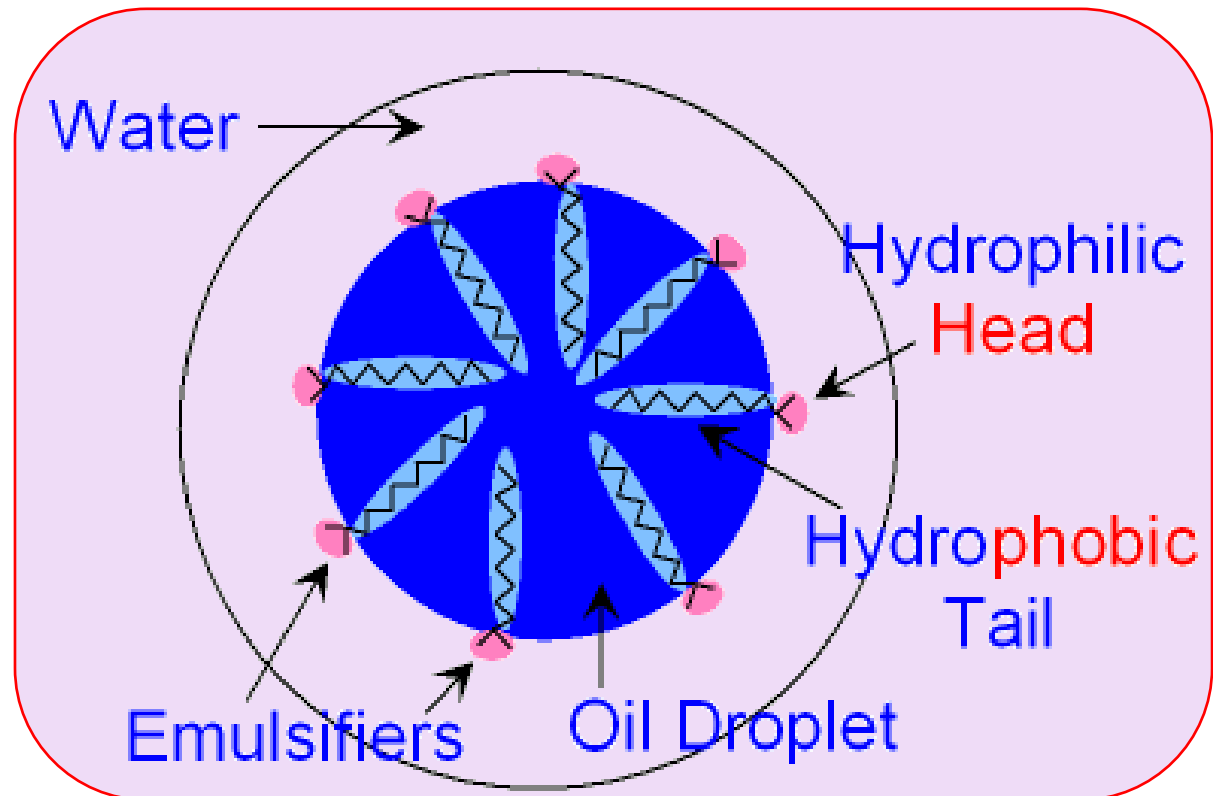
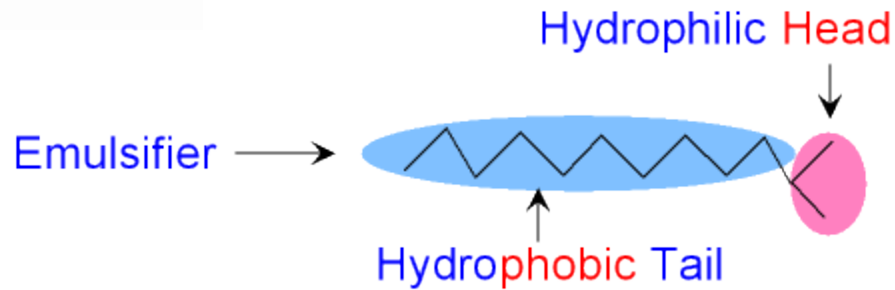


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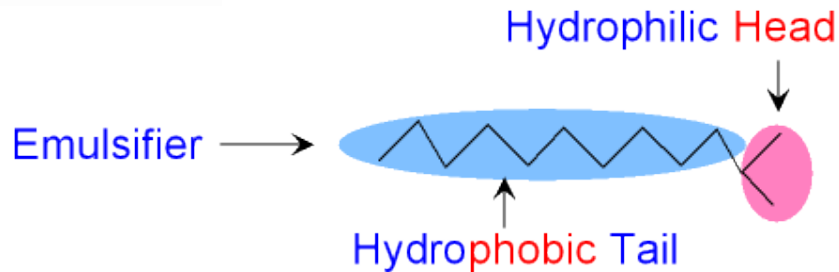
Emulsifier



Emulsifier



Surfactants are Emulsifiers



Shampoos, soaps and cleansers clean by the use of **surfactants**.

- * The hydrophobic or oil soluble tail sticks to oil and dirt.
- * The hydrophilic or water soluble head allows water to carry away the otherwise insoluble grime.



Emollients

- * Are specially designed to make the external layers of the skin softer and more pliable.
- * They increase the skin's hydration (water content) by reducing evaporation.
- * Are fats and oils, also called lipids.



“Natural” emollients include:

- * Lanolin
- * Plant Oils
- * Shea Butter
- * Cocoa Butter

Lipids

- * Solids at room temperature they need to be heated to be incorporated into an emulsion - Cetyl Alcohol, Stearyl Alcohol, Carnauba Wax and Stearic Acid.

Naturally Derived

- * Absorb water and swell up - Cellulose, Locust Bean Gum, Xanthan Gum and Gelatin.

Mineral

- * Can be used in both oil and water based formulas - Silica, Bentonite and Magnesium Aluminum Silicate.

Synthetic

- * Water swell-able man-made molecules – Carbomer, Polyethylene Glycol (PEG).

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Pigments and dyes are used in products to impart color



- * Color additives for cosmetics must be specifically pre-approved for use by the Food and Drug Administration
- * **“FD&C”** means that the colorants have been approved by the Food and Drug Administration for use in food, drugs and cosmetics. **“D&C”** signifies the colors can be used in drugs and cosmetics, but not food.
- * When any of the FD&C colors are followed by the word **“lake”**, that means the color has been mixed with a mineral.

- * There are more than 5,000 different fragrances currently used in various cosmetic products.
- * **Essential oils** -- like almond oil, rose oil and lavender oil -- and other plant extracts are common ingredients that add fragrance.
- * Synthetic compounds such as **phthalates** are also commonly used as fragrance in products.
- * Fragrances both natural and synthetic have been identified as the most common cause of allergic contact dermatitis, which is an irritation or rash on the skin.



Tip - Sensitive to fragrances? Choose fragrance-free rather than unscented

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Preservatives prevent the growth of bacteria and fungi, which can spoil the product and possibly harm the user.

- * A mixture of preservatives is used to protect against different bacterial strains as well as yeasts and molds.
- * Antioxidants such as tocopherol (vitamin E) and BHT are added to prevent oxidation of sensitive ingredients as well as protect the skin from free-radical damage.
- * Products with only natural preservatives have a much shorter shelf life and should last no more than 4- 6 weeks without refrigeration and 3 to 5 months when refrigerated.

Common Preservatives

- * Parabens
- * Formaldehyde derivatives
- * Phenol derivatives
- * Quaternary compounds (Quats)
- * Alcohol
- * Isothiazolones
- * Natural ingredients

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- * Natural ingredients – Benzoin, Cinnamon, Citric Acid, Geranium, Goldenseal Root, Grapefruit Seed, Potassium Sorbate, Green Tea, Rosemary, Vitamin E

“**Emollient**” - describes a single ingredient

“**Moisturizer**” - describes a finished product

Emollients + Humectants + Occlusive Agents = Moisturizer!

- * **Emollient** - an ingredient that smoothes the skin’s surface by filling in cracks between skin cells.
- * **Humectant** - a substance that actually bonds with water molecules to increase the water content in the skin itself.
- * **Occlusive agents** - form a film on the skin to prevent water loss.

Tip: The best time to apply a moisturizer is when the skin is damp.

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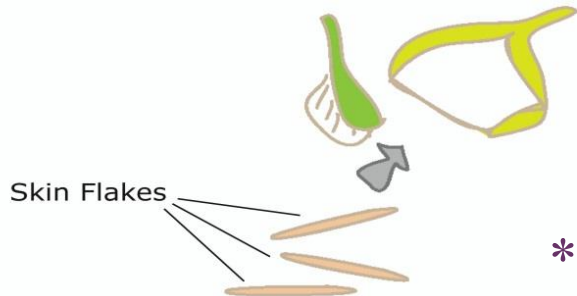
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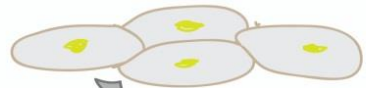
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Skin Flakes

Flattened Epidermal Cell



Dividing Stem Cell

Stem Cell

Review of Skin Anatomy

- * Keratinocytes migrate up from the dermis and undergo many changes to become a flat, keratin rich epidermal cells before being shed.
- * During this progression through the epidermis, lipids are released into the spaces between cells and generate the skin's own natural moisturizing factor.
- * Disruption of this lipid matrix and subsequent loss of hydration can lead to dry, flaky skin

How Moisturizers Work

Dry Skin – occurs when water is lost from the top layer of dead skin cells faster than moisture can enter it from the living layers of skin below.

Moisturizers can correct this problem in 2 ways:

- * **Occlusive agents** - like **petroleum jelly, isopropyl palmitate, stearyl alcohol** or **light mineral oil** prevent further moisture loss.
- * **Humectant substances** - like **glycerin, hyaluronic acid** or **alpha hydroxy acids** (fruit acids such as **glycolic acid, citric acid** or **lactic acid**) add water to the top layer of skin.



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Active Ingredients - Correct

- * Materials that work physiologically within the skin or aid in protecting the skin.
- * Penetrate the dermal layers to exact a physiological change.
- * Fruit Acids – alpha hydroxyacids (AHAs)
- * Target production of collagen and elastin.
- * Used to lighten, tighten, tone and firm.

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- * Salicylic acid
- * Hydroquinone
- * DMAE
- * Glycolic acid
- * Stem cells
- * Peptides
- * CoQ10

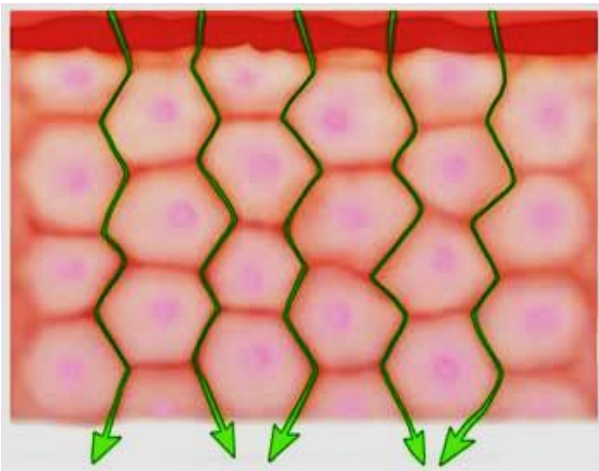
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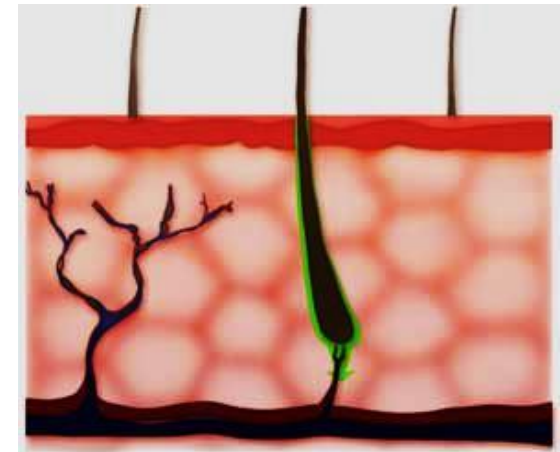
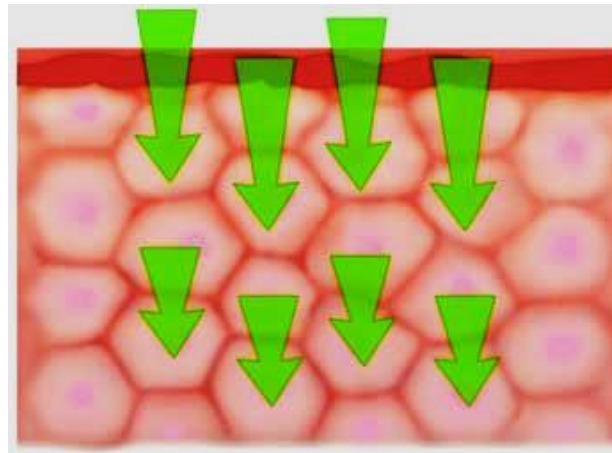
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There are 3 efficient ways an active ingredient can penetrate the stratum corneum:



The intercellular route – through the spaces between cells.

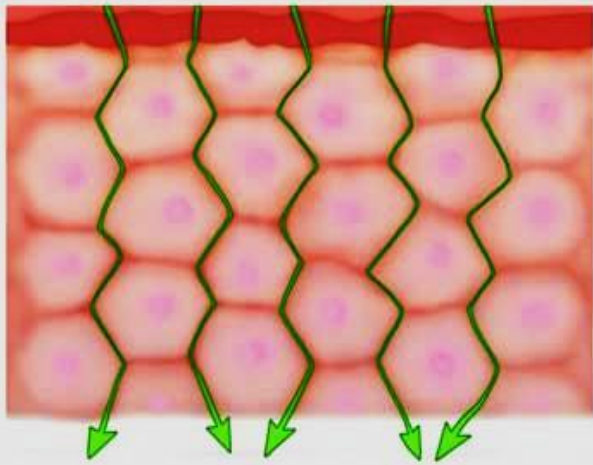
The transcellular route – flowing from cell-to-cell.



The transfollicular route - through the hair follicles, and sweat glands.

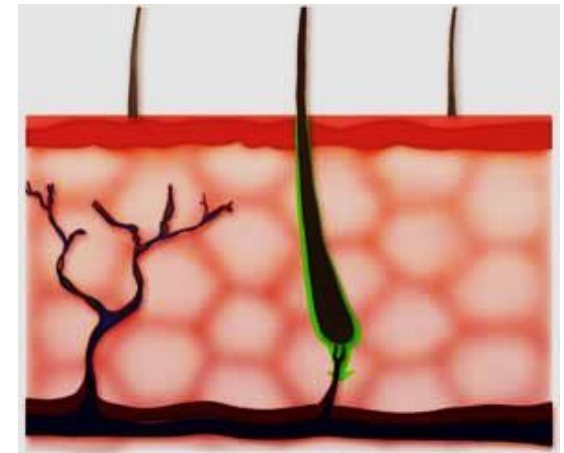
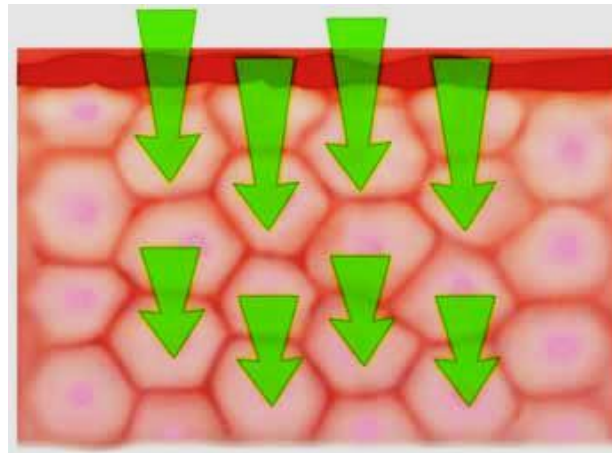
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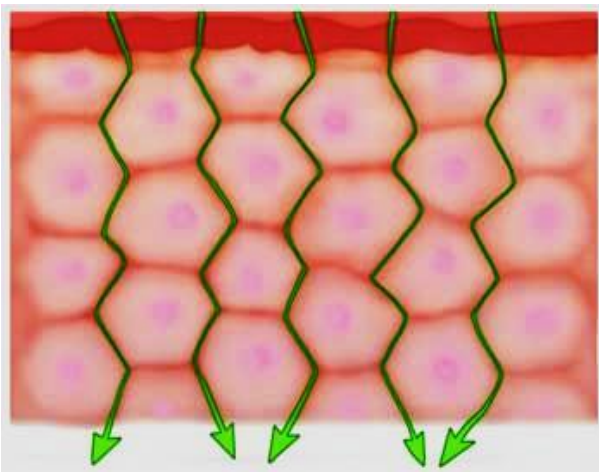
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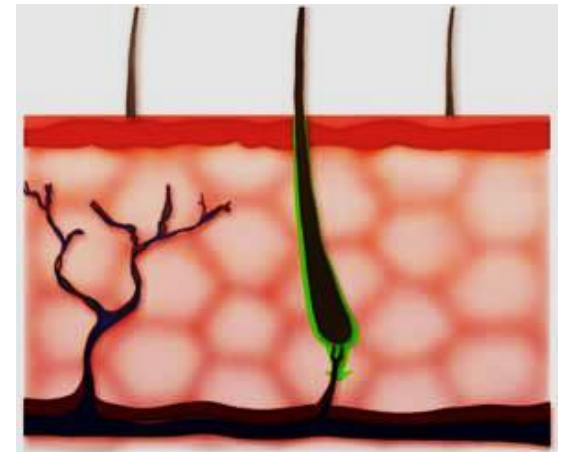
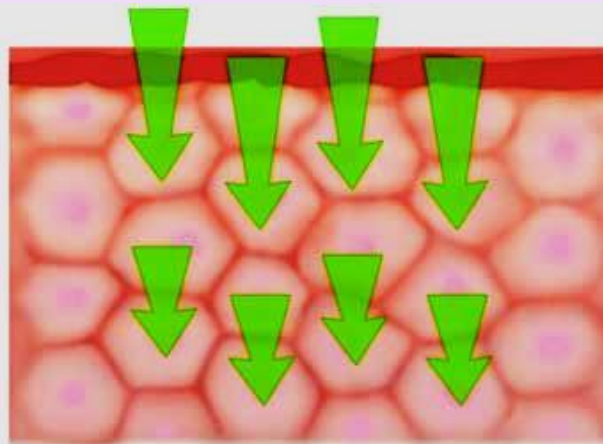
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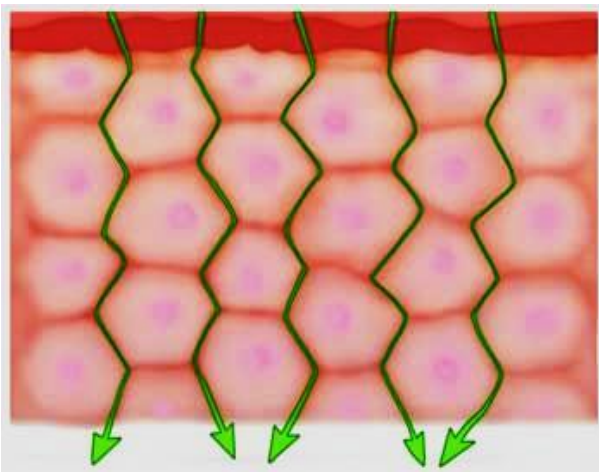
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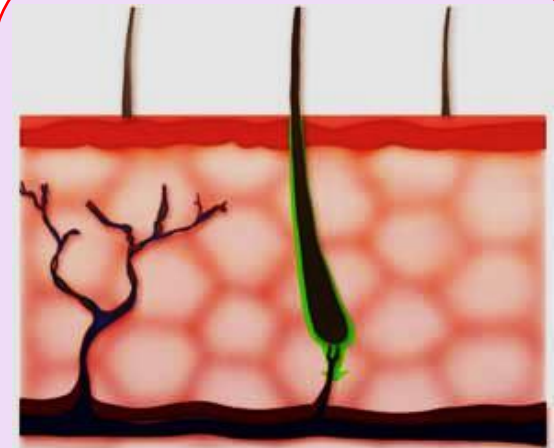
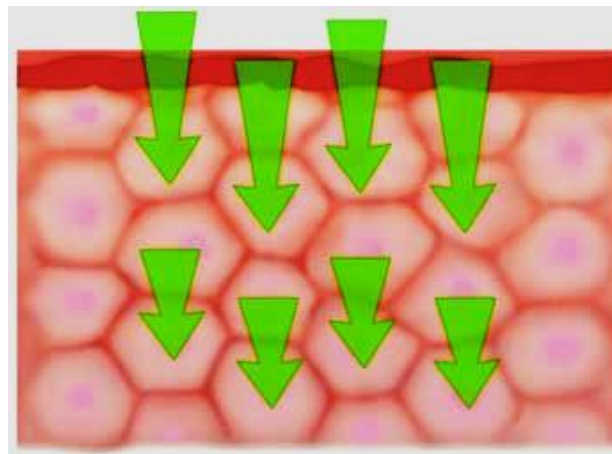
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Chapter 5 Test

Please click on the purple button below to take the chapter five test. Results will be emailed to you within 2 business days.

