

MOISTURIZERS



The Birth of the Modern Cream

After centuries of homemade preparations, manufactured body creams became widespread in the 1800s. Popular new ingredients included petroleum jelly, which was used all over the body beginning in the late 1800s, as well as mineral oil. Techniques for collecting lanolin, a waxy substance produced by sheep and other woolly creatures, were also perfected in the late 1800s, and the substance became another common addition to creams.

Around 1900, some manufactured products broke out of their local markets and attained nationwide distribution. One of the first, was Hinds' Honey and Almond Cream, formulated in 1872 by a drugstore owner in Portland, Maine. However, the development of body creams really took off in the 1930s, when the invention of television led to a boom in advertisers plying their wares.

DEFINATION

- The word emollient is derived from the Latin verb *mollire*, to soften.
- **Moisturizers** or **emollients** are complex mixtures of chemical agents specially designed to make the external layers of the skin (epidermis) softer and more pliable. They increase the skin's hydration (water content) by reducing evaporation. Moisturizers simply attempt to retard transepidermal water loss and create an optimal environment for restoration of the stratum corneum barrier.

TYPES OF MOISTURIZERS

**THERE ARE THREE BASIC CLASSES OF
MOISTURIZERS:**

- OINTMENTS
- CREAMS
- LOTIONS

OINTMENTS

- **Ointments are semi-solid vehicles composed of lipid, for example White Soft Paraffin British Pharmacopoeia (BP) (Petrolatum).**
They have useful occlusive and emollient properties. Some ointments contain emulsifying agents such as polyhydric alcohols (macrogols, polyethylene glycol), or cetostearyl alcohol (e.g. emulsifying ointment BP).

The latter have the advantage of being less greasy, with good solvent properties, and are easily washed off. Ointments require fewer preservatives than other vehicles since they contain no water and do not sustain growth microorganisms.

CREAMS

- **Creams are semi-solid emulsions containing both lipid and water.** Emulsions are suspensions, either of lipid droplets in water or water droplets in lipid. In the former category are aqueous or vanishing creams, for example Aqueous Cream BP. These are water-miscible, cooling and soothing, and are well absorbed into the skin

In the latter category are water-in-oil (W/O) creams, for example Oily Cream BP. These are immiscible with water and more difficult to wash off. They are emollient, lubricant and mildly occlusive (but less so than ointments).

LOTIONS

- **Lotions are liquid formulations which are usually simple suspensions** or solutions of medication in water, alcohol or other liquids. Those containing alcohol often sting, especially when applied to broken skin. When left on the skin the liquid will evaporate leaving a film of medication on the surface.

MECHANISM OF ACTION

Three methods are used to moisturize skin:

1. Occlusives
2. Humectants
3. Restoration of deficient materials

OCCLUSIVES

These work by forming a thin film on the surface of the skin to prevent loss of moisture. The most effective occlusive moisturizer is petrolatum, since it reduces transepidermal water loss by 99%. Total occlusion of the stratum corneum is undesirable, since transepidermal water loss is the cellular signal that initiates barrier repair and the resulting synthesis of intercellular lipids.

Complete cessation of transepidermal water loss results in no barrier repair, allowing water loss to return to its normal pretreatment level once the complete occlusion has been removed. Petrolatum allows barrier repair while permeating throughout the interstices of the stratum corneum.

HUMECTANTS

- Humectants: These attract water vapor from the air to moisturize the skin.
- These are compounds with a high affinity for water (hygroscopicity).
- They draw water into the stratum corneum and therefore have an emollient effect on dry skin. Humectants also help to improve the smoothness of xerotic skin by inducing corneocyte swelling and minimizing voids between the desquamating corneocytes.

Restoration of deficient materials

These are more complex and try to restore natural moisturizing factors on the skin, such as amino-lipids

OCCLUSIVES

Hydrocarbon oil and waxes	Petroleum,mineral oil,paraffin,squalene
Silicone oils	Dimethicone,cyclomethicone
Vegetable and animal fats	Soyabean oil,olive oil,lanolin and animal fat
Fatty acids	Lanolin acid, stearic acid
Fatty alcohol	Lanolin alcohol, cetyl alcohol
Polyhydric alcohol	Propylene glycol alchohol
Wax esters	Bees wax ,stearyl sterate
Vegetable waxes	Carnauba, candelilla waxes
Phospholipids	Lecithin
Sterols	Cholesterol

Mineral oils and greases

Extracts of crude oil (crude petroleum) resembling those we use today have been used for treatment of skin disease since a US patent was obtained, in 1872, by Robert Chesebrough for a product he called Vaseline.

Emollient products extracted from crude oil can be produced as fluids, semi-solids or solids and include Liquid Paraffin BP, Mineral Oil USP, Yellow and White Soft Paraffin BP, Petrolatum USP .

SILICON OILS

DIMETHICONE

Dimethicone and Methicone are silicone based polymers. Emollients, protectants. Help to provide surface barrier properties to the skin.

LANOLIN

Lanolin is an ointment-like material isolated from wool that is sheared from sheep. Lanolin and its related ingredients moisturize the skin, hair and nails. Lanolin comprises a complex mixture of higher fatty acids esterified with mono and dihydric alcohols, including aliphatic alcohols and cholesterol and related sterols. These ingredients act as lubricants on the skin surface, which gives the skin a soft, smooth appearance.

FATTY ACIDS

STEARIC ACID

Stearic acid is a fatty acid that occurs naturally in various plants and animal derivatives. It's found in such products as animal tallow, cocoa butter and vegetable fats. When it's used in cosmetic products, stearic acid primarily fulfills the role of a thickener or hardener. As a surfactant, stearic acid is a powerful cleanser. A surfactant is a compound that helps reduce water's surface tension, allowing it to mix with oils and dirt on the surface of your skin.

FATTY ALCOHOL

CETYL ALCOHOL

Cetearyl Alcohol, Cetyl Alcohol, Myristyl Alcohol and Behenyl Alcohol are white, waxy solids. Isostearyl Alcohol is a clear liquid. Cetyl Alcohol and Stearyl Alcohol are the two major components of Cetearyl Alcohol. Cetearyl Alcohol and the other fatty alcohols keep an emulsion from separating into its oil and liquid components. These ingredients are also used to alter the thickness of liquid products and to increase foaming capacity or to stabilize foams.

WAX ESTERS

It is used as a thickening agent for creams, ointments and lip salves.

HUMECTANTS

Humectants include glycerin, honey, sodium lactate, urea, propylene glycol, sorbitol, pyrrolidone carboxylic acid, gelatin, hyaluronic acid, and some vitamins and proteins. The body utilizes hyaluronic acid and other glycosaminoglycans in the dermis as biologic humectants to prevent desiccation of the skin. Humectants can only hydrate the skin from the environment when the ambient humidity exceeds.

HUMECTANTS

GLYCERIN

Glycerin is a sugar alcohol that can be obtained from natural sources or can be synthesized. Glycerin is a well known humectant (ingredient that increase the water content of the top layers of the skin by drawing moisture from the surrounding air) in cosmetics and personal care products. Other functions that have been reported for Glycerin include, hair conditioning agent, oral care agent, skin conditioning agent – humectant, skin protectant and viscosity decreasing agents.

HYALURONIC ACID

Hyaluronic Acid, Sodium Hyaluronate and Potassium Hyaluronate are white fiber-like or creamy powders. In cosmetics and personal care products, these ingredients are used mainly in the formulation of skin care products, lipsticks and eye and facial makeup. They enhance the appearance of dry or damaged skin by reducing flaking and restoring suppleness.

PROPYLENE GLYCOL

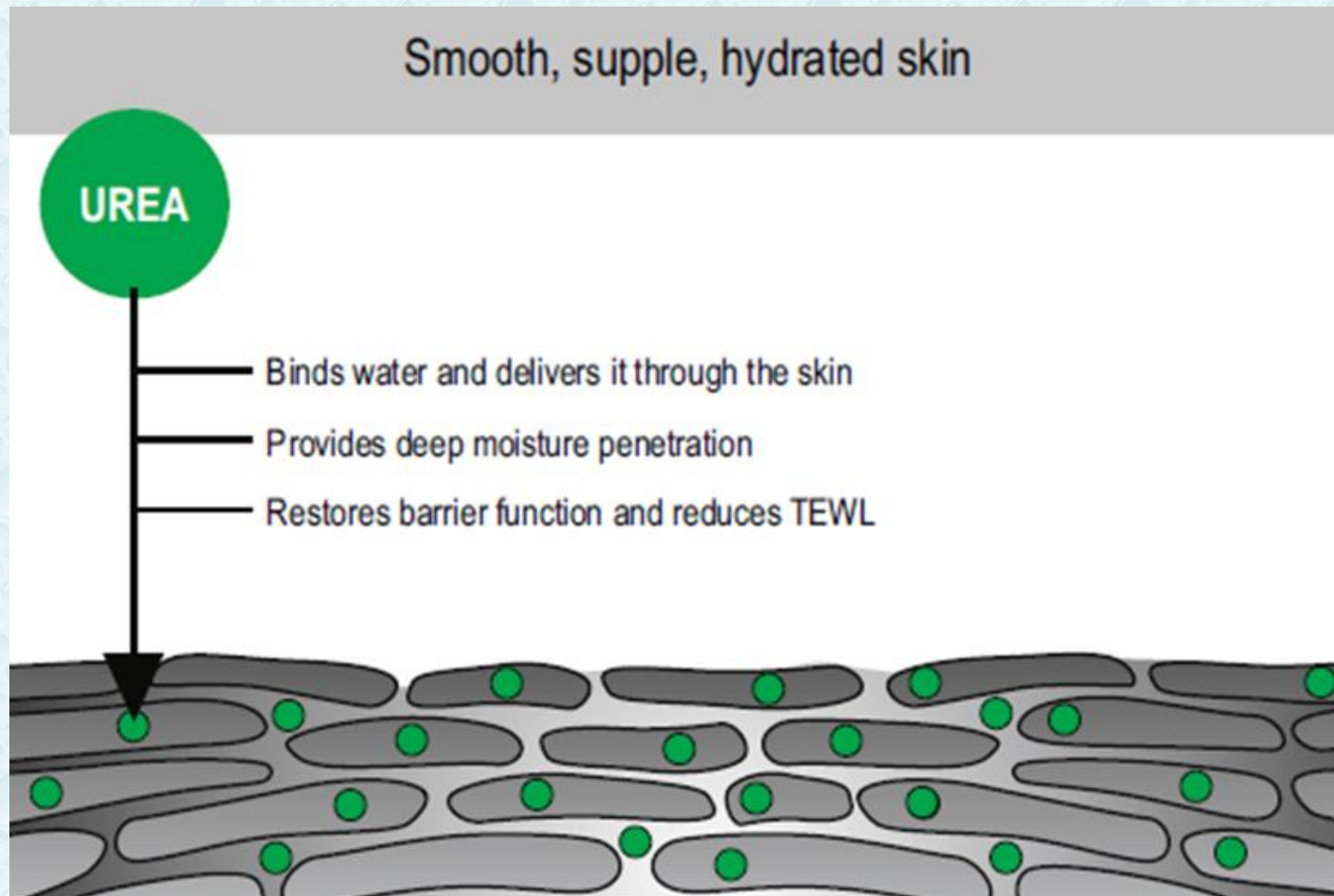
Propylene Glycol is an organic alcohol. It is one of the most widely used ingredients in cosmetics and personal care products.

Propylene Glycol and Polypropylene Glycols attract water and function as moisturizers to enhance the appearance of skin by reducing flaking and restoring suppleness.

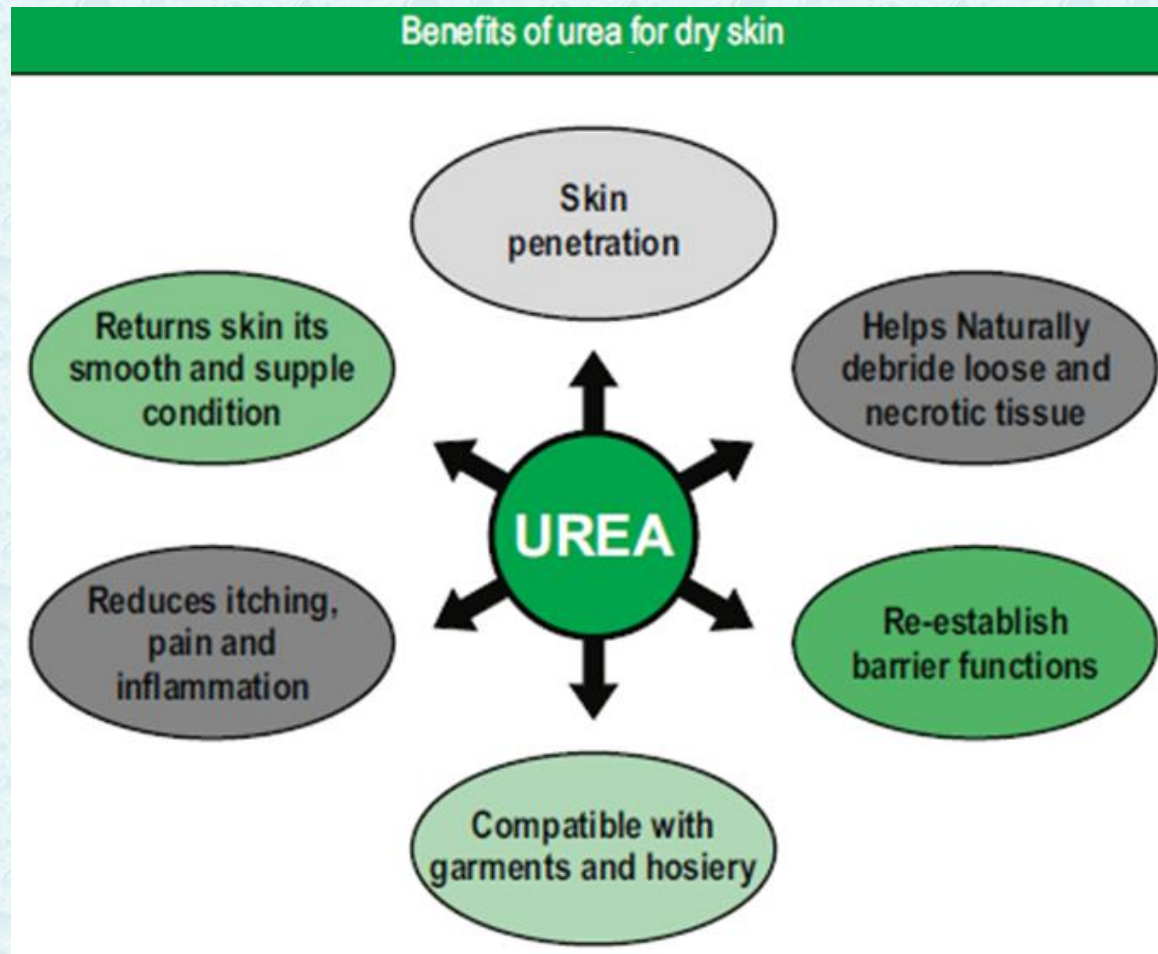
ALPHA HYDROXY ACIDS

A class of chemical compounds that occur naturally in fruits, milk, and sugar cane. They are glycolic acid (sugar cane), lactic acid (milk), citric acid (oranges and lemons), malic acid (apples and pears) and tartaric acids (grapes).

Beneficial Actions of Urea on Skin



Benefits of Urea in Dry Skin



The Important Skin Properties of Vitamin E

Moisturizing agent

Provide a better water binding ability of the skin and act as a moisturizer, protects against lipid peroxidation of cell membranes.

Limits skin aging

Powerful free radical scavenger and may therefore limit the acceleration of the ageing process caused by free radicals.

Anti-inflammation

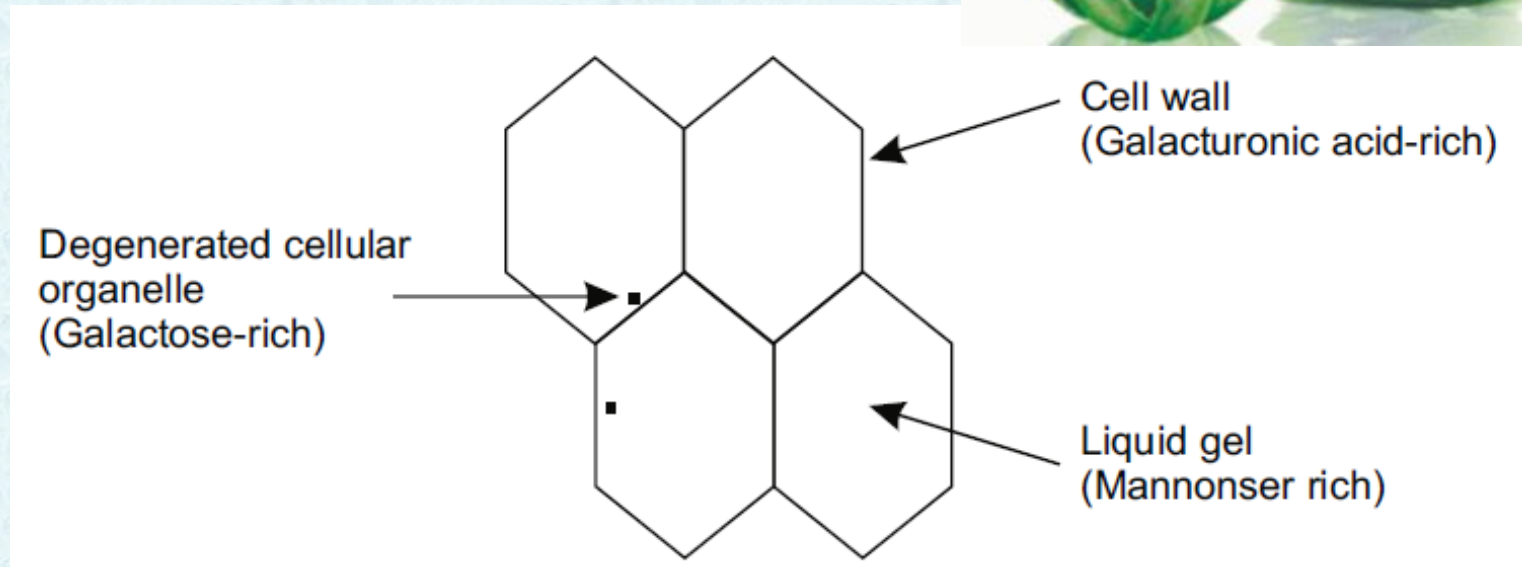
Relieves irritation and improve the soothing effect of creams and lotions, suppresses histamine release and reduces swelling and erythema.

Protects skin against UV radiation

Protects skin from UV radiations and also repair damaged epidermal cells of the skin.

The Important Skin Properties of Aloe Vera

- Moisturize the Skin
- Revitalize the Skin
- Possesses Anti-inflammatory Action
- Accelerates Wound Healing



INDICATION

Moisturizers prevent and treat dry skin, protect sensitive skin, improve skin tone and texture, and mask imperfections.

- **Preservation of normal skin**

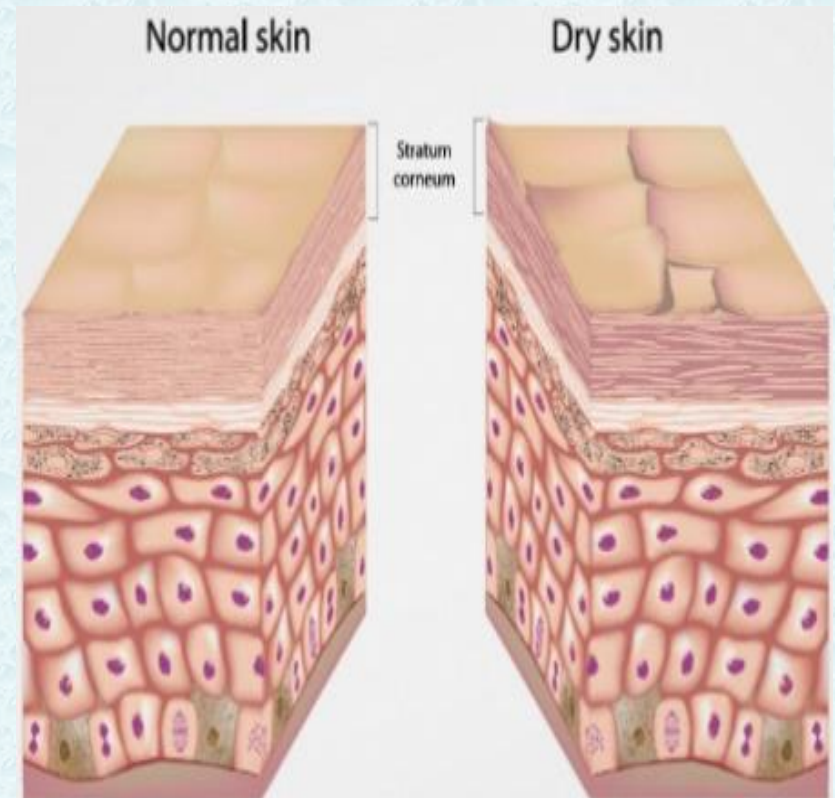
Moisturizers can be used to prevent the skin from becoming too dry or oily, such as with light, non-greasy water-based moisturizers. Such moisturizers often contain lightweight oils, such as cetyl alcohol, or silicone-derived ingredients, such as cyclomethicone.

Defination

Dry skin refers to roughened, flaky or scaly skin that is less flexible than normal and dry to the touch. Follicular accentuation is often prominent on extensor surfaces and the condition is aggravated by cold, dry climates or seasons.

WHY DRY SKIN OCCURS ???

- Water content
- Water binding capacity
- Barrier function
- Environmental factors
- Surface area
- Desquamation of cells
- Sweat and sebaceous glands



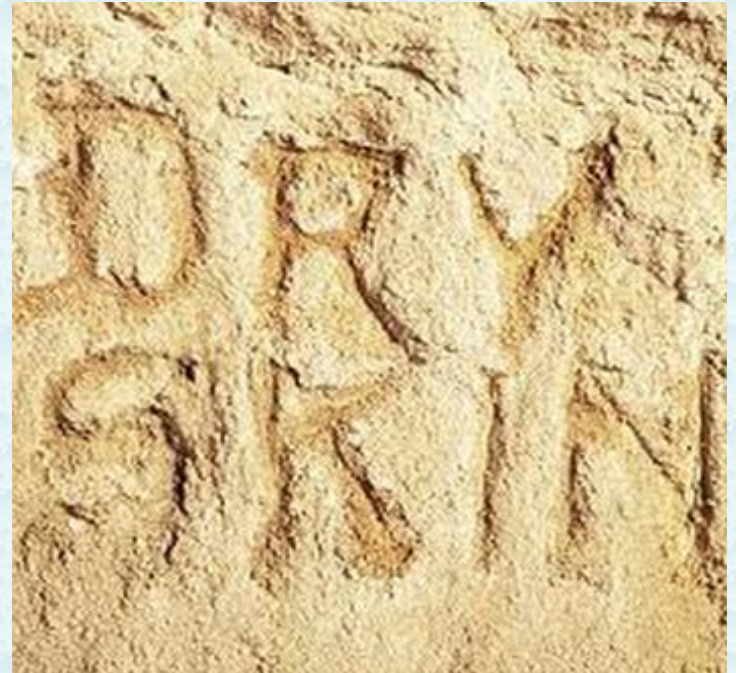
What Causes Dry Skin?

Internal Factors – Recurrent

- Genetics e.g. Atopic Eczema, Ichthyosis
- Medical Conditions e.g. Diabetes, Kidney Dysfunction
- Age (Decreases in Skin Thickness and function]

Environment Factors – Transient

- Low Humidity
- Low Temperature
- Exposure – Solvent, Soaps, Detergents, etc..









Common site for Dry Skin

- Legs (especially the anterolateral surfaces)
- The back, flanks, abdomen, waist, arms, and hands are also common sites.
- The feet may be less prone to dryness, depending on the footwear chosen.
- Dry skin is more common as one ages and is more often found on the legs, arms, and trunk. It is less common to have dry skin on the face.

Prophylaxis and Treatment – Dry Skin

Prophylaxis – Transient – Environmental

- Limit the bathing
- Usage of recommended soap
- Detergents, rubbing alcohol, and skin care products that contain alcohol and other drying agents should be avoided



Treatment – Recurrent – Internal (Minimizing irritation & Moisturization)

- Moisture retaining ability of the stratum corneum, dependent on :
 - > Hydro Lipido Proteic film (HLP)
 - > Natural Moisturizing Factor (NMF)
- Oil
- Liquid Paraffin
- Moisturizer

OILY SKIN

For oily skin, moisturizers can still be useful after activities causing skin dryness, such as other skin care products and washing. For oily skin, water-based moisturizers that are specifically non-comedogenic are preferable, as there is less risk of comedon formation.

AGING SKIN

Appropriate moisturizers to keep aging skin soft and well hydrated are oil-based ones that contain petrolatum as the base, along with antioxidants or alpha hydroxy acids against wrinkles.

SENSITIVE SKIN

- On sensitive skin (which otherwise is susceptible to skin irritations, redness, itching or rashes), it is preferable to use moisturizers which contain soothing ingredients such as chamomile or aloe, and that minimize potential allergens such as fragrances or dyes, as well as irritants such as acids.

The Ideal Moisturizer – Treatment

Hydrate & Restore the Skin better

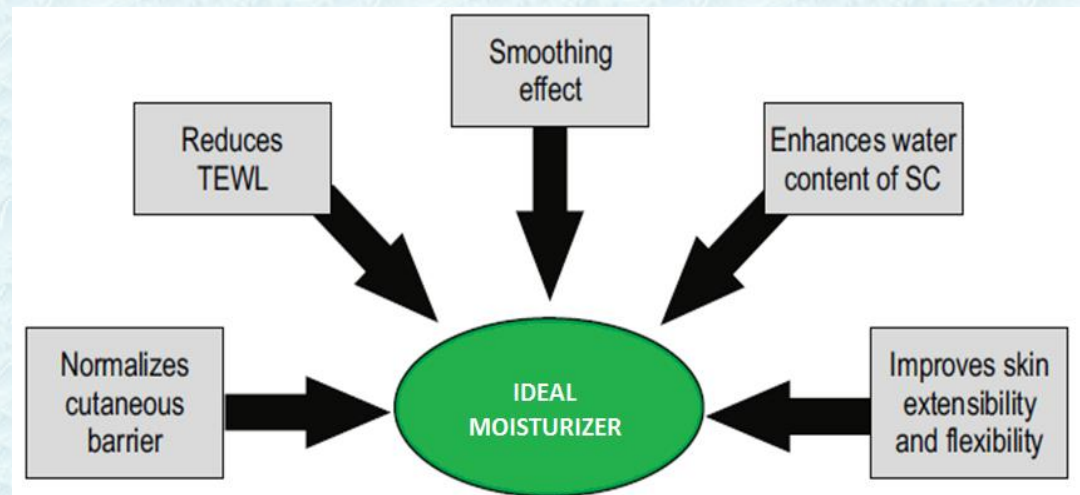
- Smoothen the skin
- Increases Elasticity
- Lesser Wrinkles

Deliver & Retain Moisture

- Penetrate
- Fill in spaces
- Occlusive in nature

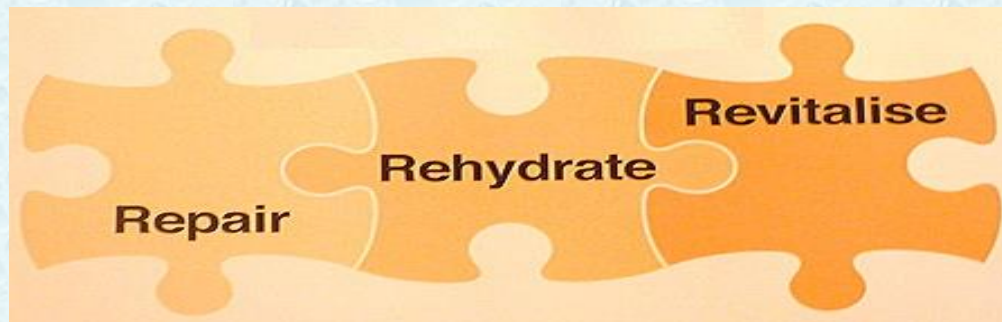
Physiological

- pH Compatible
- Allergen Free
- Does not clog pores



Which Moisturizer?

- **Soothers – Revitalize:** Relieves Irritation and Reduces the Roughness of Skin Vitamin E, Squalene, Liquid Paraffin
- **Humectants – Rehydrate:** Attract and Retain Water, Enhances Skin Hydration Aloe Vera, Glycerin, Lactic Acid & Urea
- **Occlusive – Repair:** Reduces Trans-epidermal Water Loss Urea, Petroleum Jelly, Wax, Lanoline



Which Moisturizer?

Individualized

- Skin Type
- Degree of Dryness
- Lifestyle

Ratio of Oil : Water

- Oil
- Cream
- Lotion



MOISTURIZING TECHNIQUES

- It is important to use proper bathing techniques, followed by application of moisturizers to skin within three minutes of showering or bathing, the skin is patted with a soft towel in such a way that a thin film of water remains on the skin. An emollient is immediately applied to the wet skin in order to trap the water in the skin to maintain hydration
- A thick bland product is best.
- Dispense the moisturizer from large jars with a clean spoon, butter knife, or pump to avoid contamination.

- Take a dollop of moisturizer from the jar, soften it by rubbing it between your hands, and apply it using the palm of your hand stroking in a downward direction.
- Do NOT rub by stroking up and down or around in circles.
- Leave a tacky film of moisturizer on your skin; it will be absorbed in a few minutes.

FREQUENCY OF APPLICATION

- Application of an emollient two times a day or even more frequently will keep the skin soft and supple.

RISKS OF MOISTURIZERS

Two factors have to be considered when assessing the safety of a moisturizer:

- The safety of the ingredients it contains
- The risk of bacterial contamination

Current Challenges with Moisturizers

Allergy

- Fragrance
- Colours
- Preservatives
- Lanolin – Fats

Skin Irritation

- Peeling Agents
- Emulsifier – Alcohol
- Propylene Glycol

Comedogenic

- Blackheads
- Acne
- Clogged Pores

NONPRESCRIPTION MOISTURIZERS TYPICALLY CONTAIN

60% to 80% water

Lipids (essential fatty acids)

Emulsifiers that help keep water and lipids in a continuous phase

Humectants that help retain water in the skin

Preservatives

Colors, fragrances, and dyes

Special additives such as vitamins, amino acids, urea, and lactic acid

The Best Moisturizer is the one which We Should Recommend

- Restores the skin lipid layers by mimicking the natural composition
- Rehydrates and locks the moisture
- Hypoallergenic & No Skin Irritation
 - No Fragrance,
 - No Colourants
 - No Preservatives, &
 - No Alcohol
- Non – comedogenic.

Newer Dimension – Moisturizer

- *Combine all 3 : Revitalize + Rehydrate + Repair of Dry Skin*
- *Combine all 3 : Soothers + Humectants + Occlusive*

First time in India
Emollient with all 3 properties of
Occlusive+Humectants+Soothers

 **AlvextraTM**
Vitamin E Acetate 0.5%, Aloe Extract 10% and Urea 10% BP Cream

Most Efficient Skin Hydrating Cream

Exhibits all 3 properties of an ideal emollient

- Urea reduces TEWL¹
- Aloe Vera moisturizes and revitalize the skin²
- Vitamin E relives irritation and improve the soothing of skin³

First time in India

Emollient with all 3 properties of
Occlusive+Humectants+Soothers

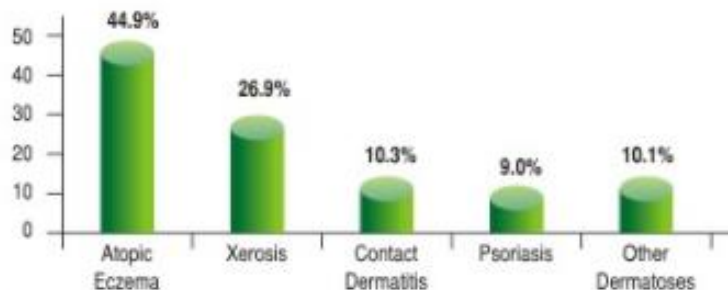
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AlvextraTM

Vitamin E Acetate 0.5%, Aloe Extract 10% and Urea 10% BP Cream

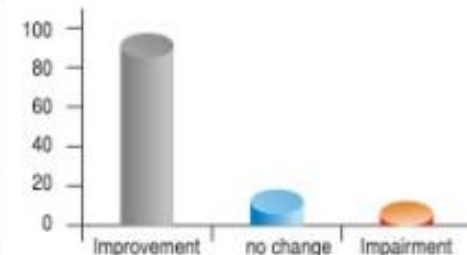
Most Efficient Skin Hydrating Cream

› Exhibits all 3 properties of an ideal emollient

Effective moisturizer in various dry skin conditions^a



The symptom dryness - change from baseline



First time in India

Emollient with all 3 properties of
Occlusive+Humectants+Soothers

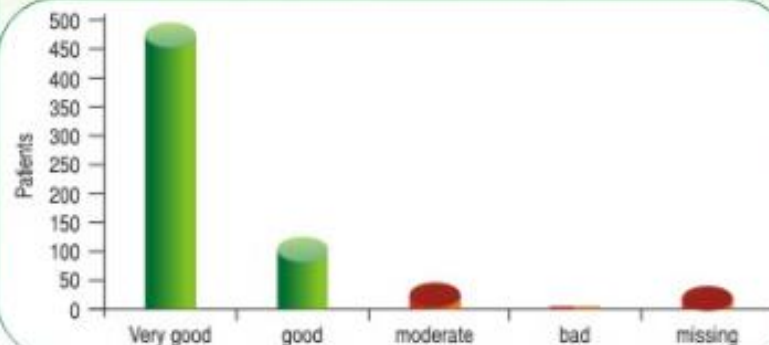
Alvextra™

Vitamin E Acetate 0.5%, Aloe Extract 10% and Urea 10% BP Cream

Most Efficient Skin Hydrating Cream

- Well tolerated formulation in >96% of patients⁵

**Tolerability of 10% Urea after 14 days of
twice daily application, n = 604**



Dosage³:

Apply 1-2 times daily



Alvextra : Manage Recurrent Dry Skin

- 10% Urea + Vitamin E Acetate 0.5% + Aloe Vera Extract 10%
- No Fragrance
- No Colorants
- No Preservatives
- No Alcohol
- Cream Base
- Occlusive in Nature
- Packed in Double Walled Jar
- 10% of Urea is in permissible limit to apply on any part of the body affected by Dry Skin due to Skin Inflammatory Diseases like Psoriasis, Atopic Eczema, Urticaria etc.
- Well accreted in European Markets

Manage Transient Dry Skin

Environment Factors – Transient

- Low Humidity
- Low Temperature
- Exposure: Solvent, Soaps, etc.

Have multiple healing properties



Now Indians will avail of topical benefits of Papaya

Introducing 1st time in India

PawmentTM

Carica Papaya Topical Application

Powered by Nature

Made from

Carica Papaya 39mg/g
Fresh Fermented Fruit²&

Pharmaceutical Grade
Petroleum Jelly²



Now Indians will avail of topical benefits of Papaya

Introducing 1st time in India

PawmentTM

Carica Papaya Topical Application

Powered by Nature

Antimicrobial & Anti-inflammatory properties³

Also improves the immune system³

Dry Skin : It moisturizes and protects the skin naturally fresh all day³

Cracked Lips : Softens the lips while simultaneously locking in their natural moisture³

Sunburn : Relieves the inflammation of the skin caused by prolonged exposure to the sun. Reduces the itchiness by keeping the skin moist¹

Cuts : By keeping the skin moist and body can repair cuts and scrapes much easier³

Chafing : Reduces the friction between skin to skin contact or skin to clothing contact by lubricating and protecting the skins surface³

Burns : Helps remove the temperature of the burned area and immediately starts recovering damaged skin³

Diaper Rash : Moistens, soothes, and heals diaper rash³



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**Thank
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