

How to Preserve Skin Quality Comfort under the Mask

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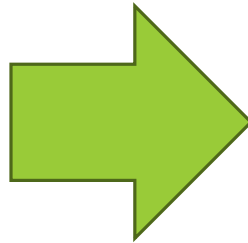
17th August 2020



COVID-19 and Facial Mask



COVID-19 and Facial Mask



MASK+ACNE=MASKNE

WHO

advice on the use of masks
(Jun 2020)

Potential harms/disadvantages

The likely disadvantages of the use of mask by healthy people in the general public include:

- potential increased risk of self-contamination due to the manipulation of a face mask and subsequently touching eyes with contaminated hands;(48, 49)
- potential self-contamination that can occur if non-medical masks are not changed when wet or soiled. This can create favourable conditions for microorganism to amplify;
- potential headache and/or breathing difficulties, depending on type of mask used;
- potential development of facial skin lesions, irritant dermatitis or worsening acne, when used frequently for long hours;(50)
- difficulty with communicating clearly;
- potential discomfort;(41, 51)
- a false sense of security, leading to potentially lower adherence to other critical preventive measures such as physical distancing and hand hygiene;
- poor compliance with mask wearing, in particular by young children;
- waste management issues; improper mask disposal leading to increased litter in public places, risk of contamination to street cleaners and environment hazard;
- difficulty communicating for deaf persons who rely on lip reading;
- disadvantages for or difficulty wearing them, especially for children, developmentally challenged persons, those with mental illness, elderly persons with cognitive impairment, those with asthma or chronic respiratory or breathing problems, those who have had facial trauma or recent oral maxillofacial surgery, and those living in hot and humid environments.

For the acne-prone, face masks may mean breakouts

by Shannon Thomason

May 28, 2020 | Print | Email

Key Words

'Maskne' — yes, mask acne — is now a thing

Published: June 29, 2020 at 9:12 a.m. ET

By Nicole Lyn Pesce

July 13, 2020 / Skin Care & Beauty

Some people are getting acne from wearing face masks. Here's how to treat it.

The Struggle With Maskne Is Very Real

Here's what you can do to help prevent it

EXPLORE InStyle

HOME > BEAUTY > SKIN

"Maskne" Is a Thing — Here's How to Fight Face Mask Breakouts

As if stress breakouts weren't bad enough.

By Kylie Gilbert | Updated Jun 29, 2020 @ 11:00 am

CNN health Food Fitness Wellness Parenting Vital Signs

Edition

'Maskne': Why your face is breaking out under your mask and how to stop it

By Sandee LaMotte, CNN

Updated 1629 GMT (0029 HKT) June 25, 2020

Wellness

Wearing a mask can irritate your face or make it break out. Here's what to do about 'maskne.'

โควิด-19 : สิวหน้ากากอนามัยและการแต่งหน้าแบบใหม่หลังวิกฤตไวรัสโคโรนาสายพันธุ์ใหม่

27 มิถุนายน 2020



MASKNE

- * Repeated mechanical and frictional pressure → “Acne Mechanica”
- * Heat and humidity around the nose and mouth → Irritation and worsen acne

MASKNE

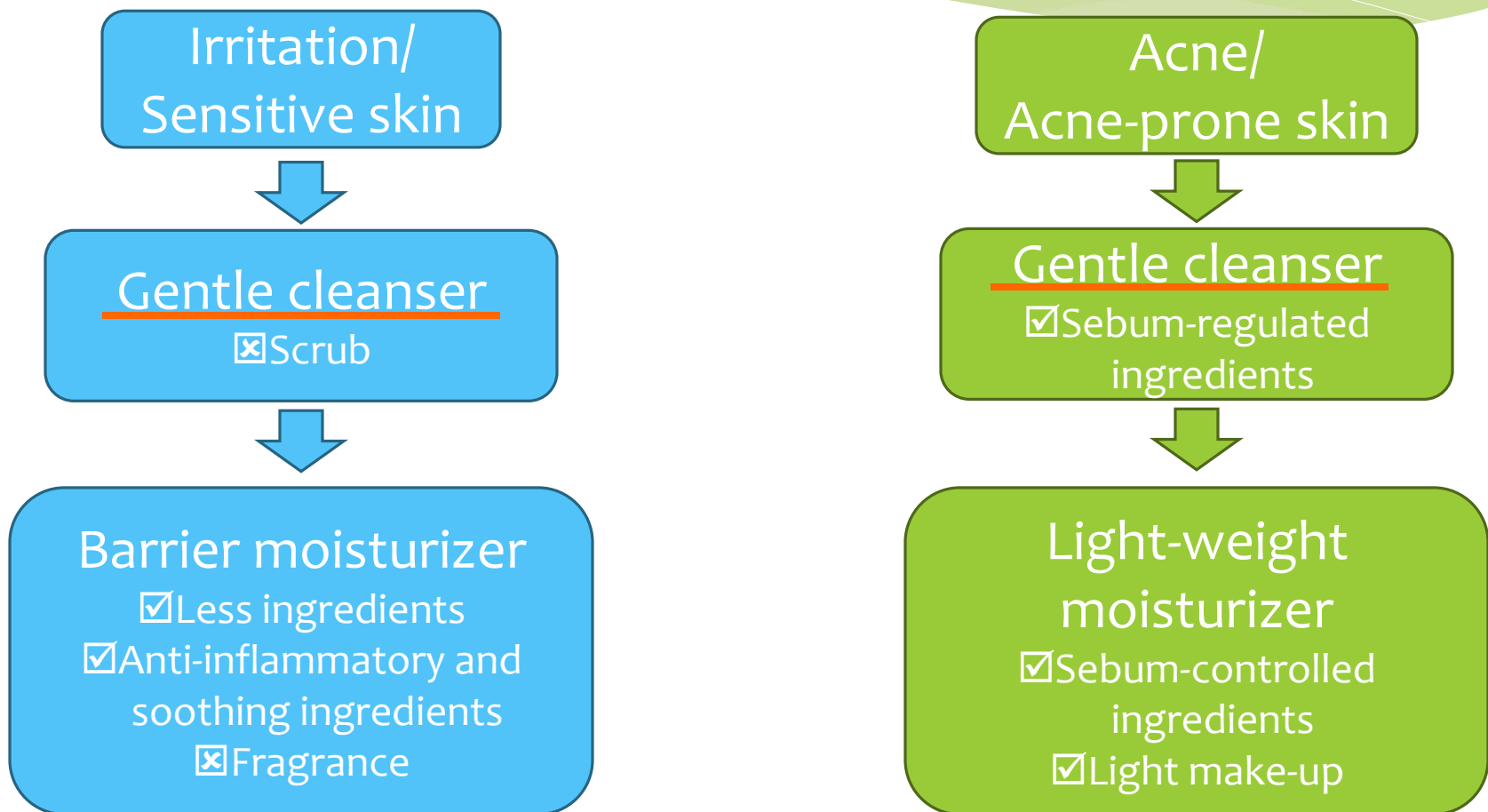
Mask

- * Change disposable mask when it is dirty
- * Wash reusable mask with mild detergent everyday

Face

- * Wash your face before and after wearing a mask with a simple gentle cleanser
- * Apply appropriate moisturizer

Keep your Face Clean and Moisturized

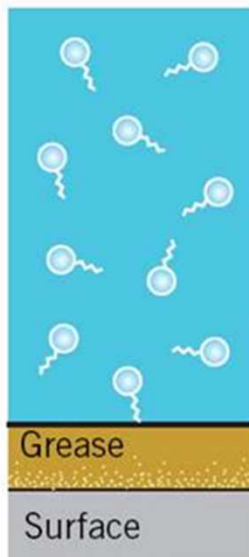


Facial Cleansers

Cleansing Mechanism

Wetting, Solubilizing, Emulsifying

(a)
Soap or
detergent
dissolves
in water



(b)
Surfactant
ions orientate
themselves in
grease and water



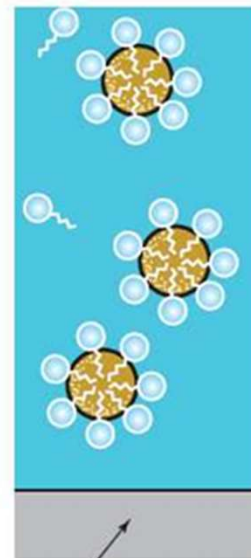
(c)
Agitation
begins to
separate
grease from
surface



(d)
Process
continues

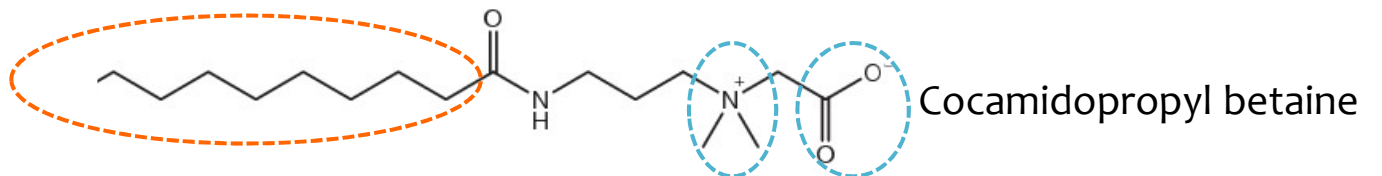
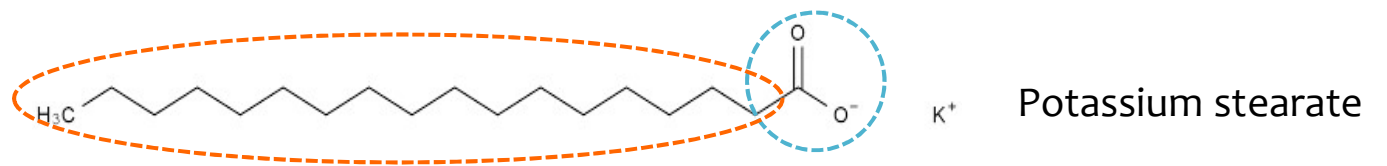
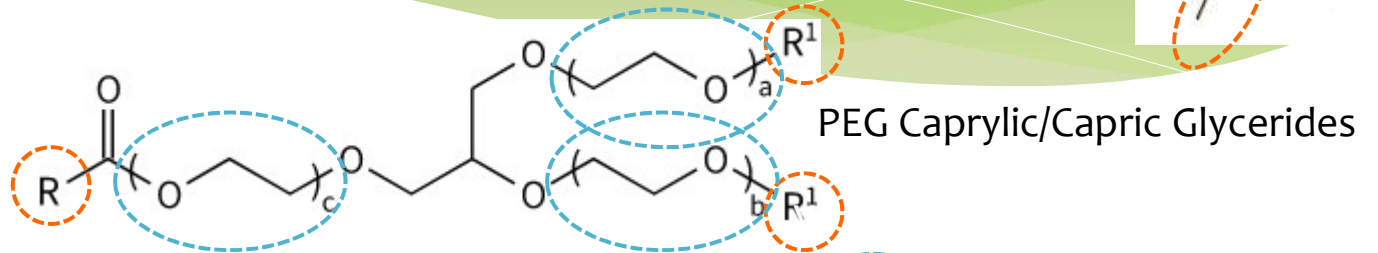


(e)
Cleaning
complete

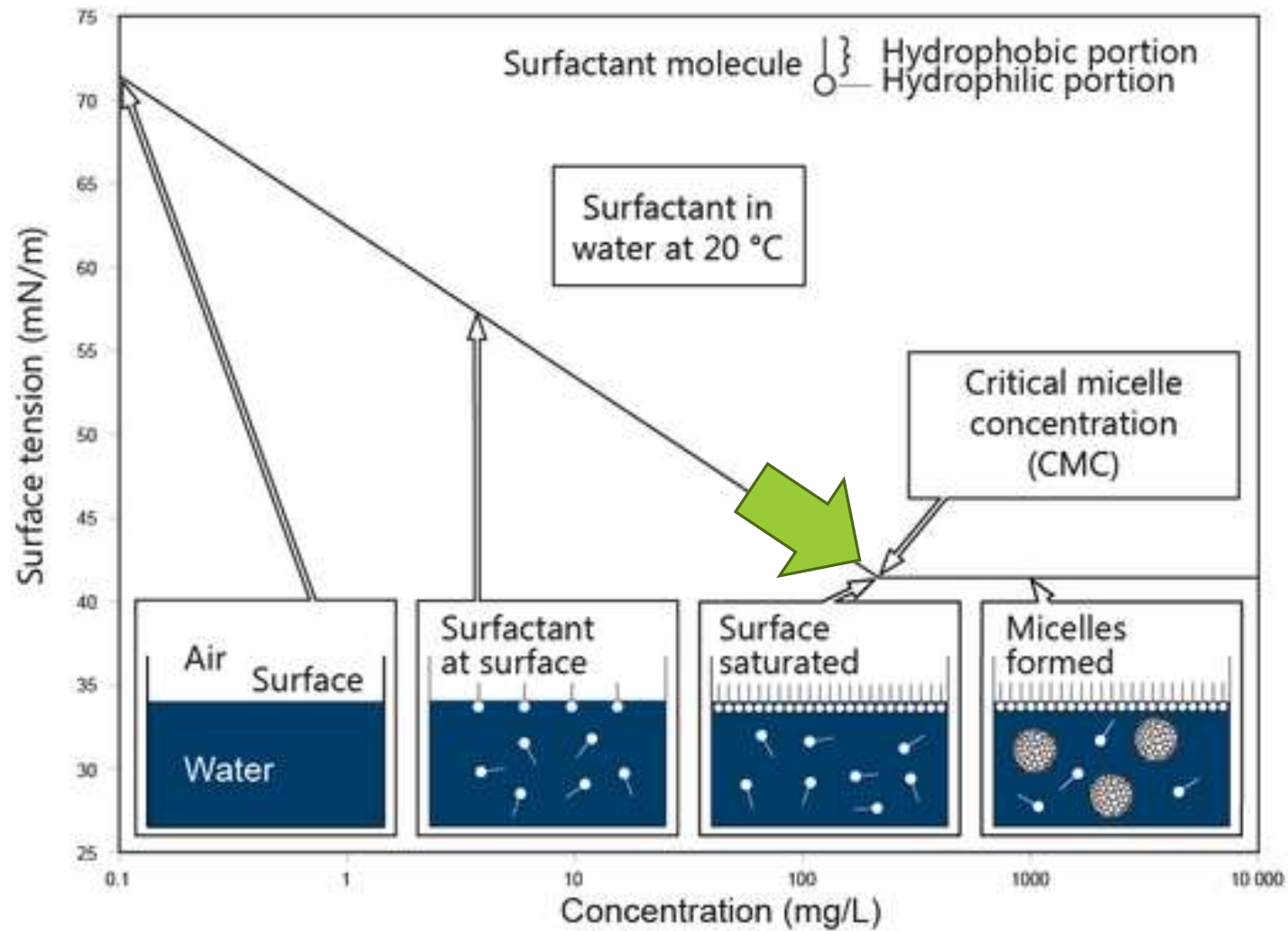


 Surfactant ions

Clean surface



Surfactants

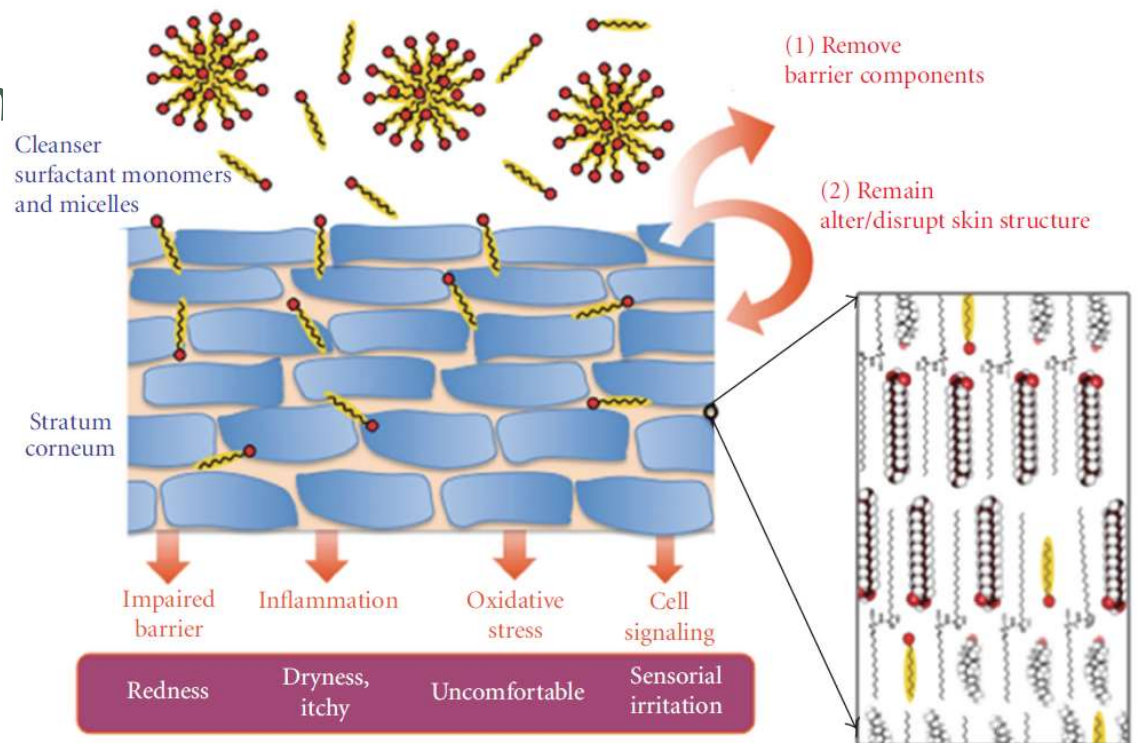


Effects on the Skin

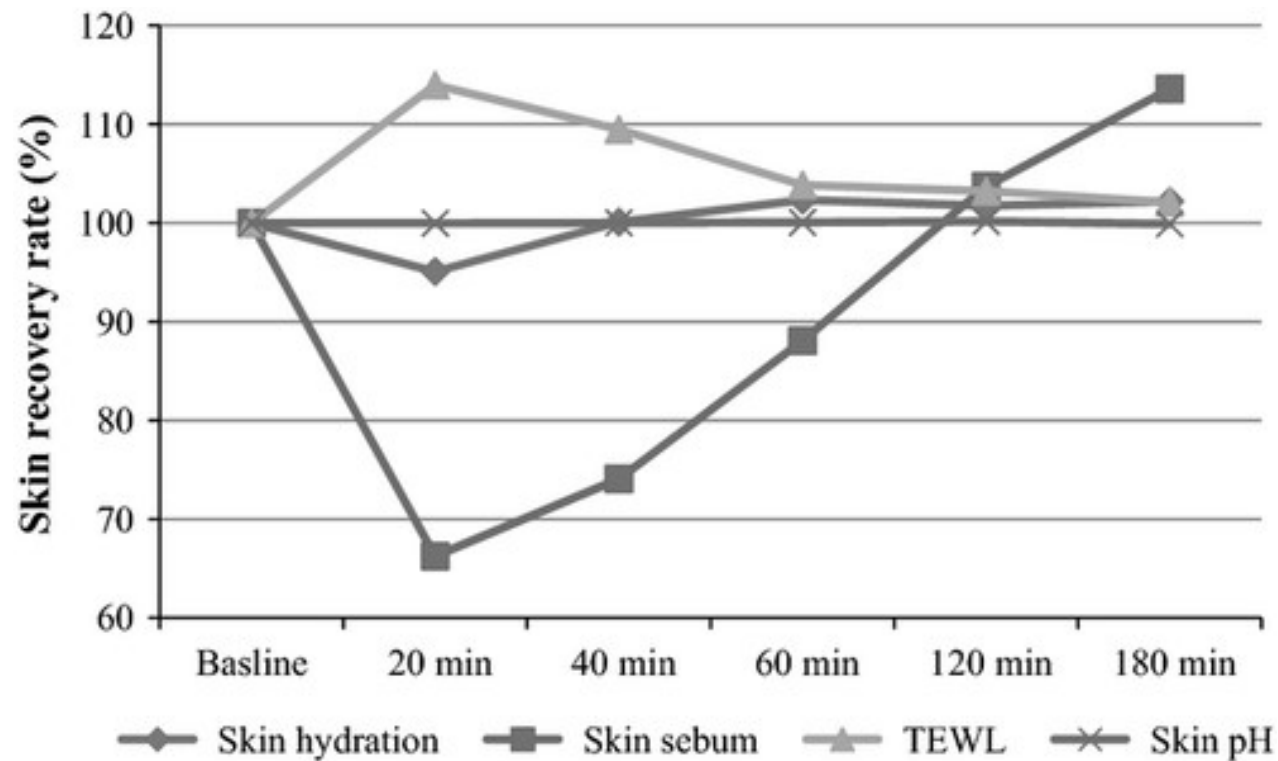
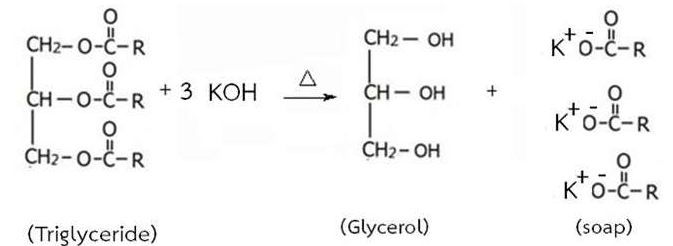
- * Delipidation
- * Swelling of cell membrane and collagen fiber and de-swelling



- * Disruption of skin barrier
- * Increase of Transepidermal water loss (TEWL) and permeation of irritants

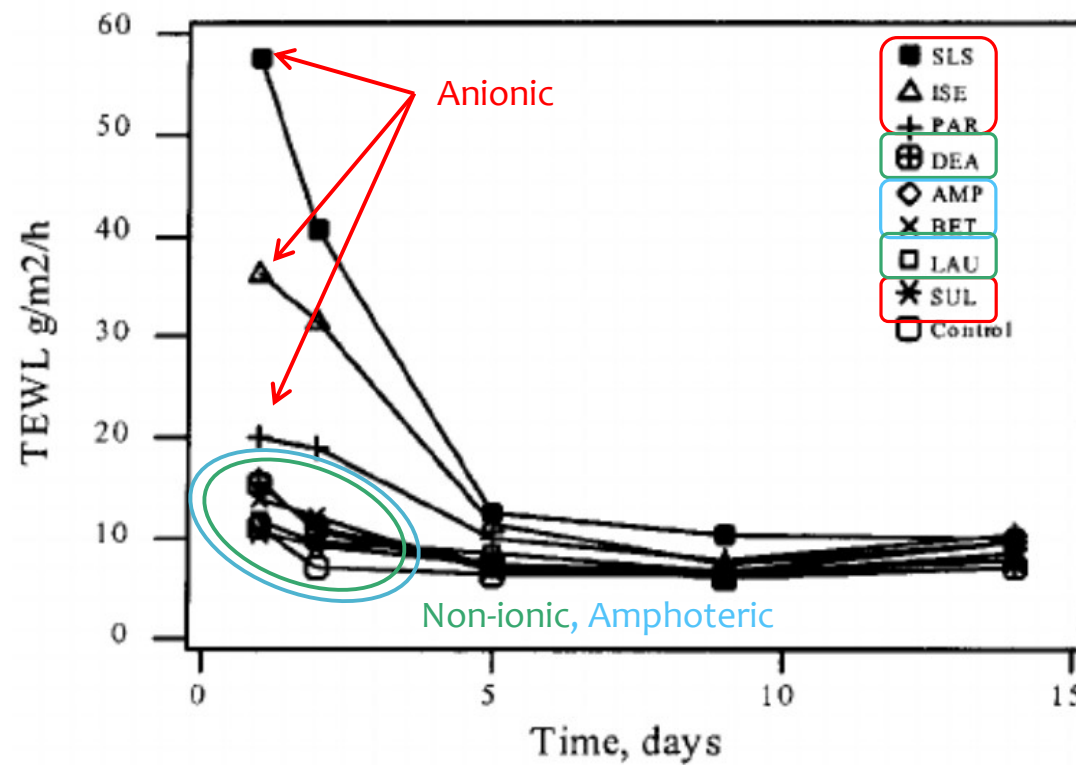


Effects on the Skin



Ingredients: glycerin, palmitic acid, myristic acid, potassium hydroxide, Rick Lau acid, stearic acid, glycol distearate Reid, cocamidopropyl betaine, potassium cocoyl glycinate, glyceryl stearate SE Reid, Jeju Sasa extract, Mulberry root bark extract, polyquaternium-7, Butylene Glycol, propylparaben, sodium benzoate, spices

Effects on the Skin



Mildness of surfactants: Non-ionic > Amphoteric > Anionic

Surfactants

	Anionic	Cationic	Amphoteric	Nonionic
Cleansing	+++	+	++	++
Foaming	+++	+	++	++
Dissolving	+++	+	++	++
Irritation	+++	+++	+	+
Toxicity	++	+++	+	+
Compatibility	++	+	+++	+++

FACIAL CLEANSERS

Without water

Cleansing milk/cream



2-phase cleanser



Micellar water



With water

Cleansing oil



Cream/Foam



Gel



Cleansing Milk/Cream



- * **What:** Oil in water emulsion
- * **How:** Apply with cotton pad and then wipe off or rinse off with water
- * **Good for:** Remove make-up, Dry skin

- * **Example of ingredients (Cleansing milk):** Aqua (Water), Sesamum Indicum (Sesame) Seed Oil, Alcohol, Simmondsia Chinensis (Jojoba) Seed Oil, Lysolecithin, Fragrance (Parfum), **Glyceryl Stearate SE**, Hamamelis Virginiana (Witch Hazel) Distillate, Iris Germanica Root

alool, Citronellol, Geraniol,

- ☒ Sensitive skin
- ☒ Acne-prone skin
- ☒ Oily skin

2-Phase Cleanser



- * **What:** Oil phase and water phase with surfactants
- * **How:** Shake and apply with cotton pad and then wipe off
- * **Good for:** Remove make up

- * **Example of ingredients:**
Aqua, Isododecane, Isopropyl Palmitate, Dimethicone, Helianthus Annuus Seed Oil, Centaurea Cyanus Flower Extract, Sodium Chloride, **Caprylyl/Capryl Glucoside**, Trisodium EDTA, Phenoxyethanol, Benzethonium Chloride, CI 60725, CI 61565

- ☒ Sensitive skin
- ☒ Acne-prone skin
- ☒ Oily skin

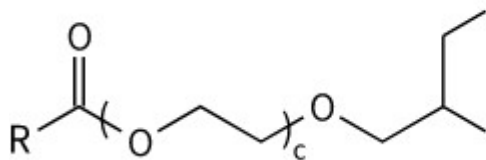
COSEMPRE - TA, EN

clean

COSEMPRE - TA, EN

- * Example of ingredients:

WATER (AQUA), PEG-6
CAPRYLIC/CAPRIC GLYCERIDES,
CUCUMIS SATIVUS (CUCUMBER) FRUIT
EXTRACT, MANNITOL, XYLITOL,
RHAMNOSE, FRUCTOOLIGOSACCHARIDES,
PROPYLENE GLYCOL, DISODIUM EDTA,
CETRIMONIUM BROMIDE.



- ✓ Sensitive skin
- ✓ Acne-prone skin
- ✓ Oily skin

Cleansing Oil



- * **What:** Oil with surfactants
- * **How:** Apply on the dry skin, massage and then rinse off with water
- * **Good for:** Remove make-up, Dry skin
- * **Example of ingredients:**
Olea Europaea (Olive) Fruit Oil,
Caprylic/Capric Triglyceride,
Sorbeth-30 Tetraoleate, Pentylene Glycol, Phenoxyethanol, Tocopherol, Stearyl Glycyrhetinate, Rosmarinus Officinalis (Rosemary) Leaf Oil

- ☒ Sensitive skin
- ☒ Acne-prone skin
- ☒ Oily skin

Cream/Foam Cleanser



- * **What:** Oil in water emulsion
- * **How:** Apply on the wet skin, massage and then rinse off with water
- * **Good for:** Normal to oily skin

* Example of ingredients:

Water/Eau, Glycerin, **Myristic Acid**, **Stearic Acid**, **Palmitic Acid**, **Sodium Lauroyl Sarcosinate**, **Potassium Hydroxide**, Lauric Acid, Polyquaternium-10, Fragrance, DMDM Hydantoin, Tetrasodium Etidronate, Iodopropynyl Butylcarbamate, Kaolin, Iron Oxides, Propylparaben, Methylparaben, Ammonium Polyacrylate, Pentasodium Pentetate.

- ☒ Sensitive skin
- ☒ Acne-prone skin
- ☒ Oily skin

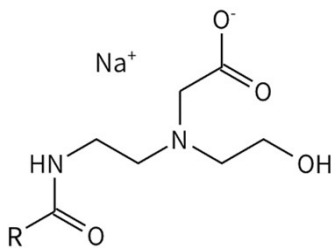
Cleansing Gel



- * **What:** Surfactants in gel base
- * **How:** Apply on the wet skin, massage and then rinse off with water
- * **Good for:** All skin types

* Example of ingredients:

AQUA/WATER/EAU, SODIUM COCOAMPHOACETATE, PROPANEDIOL, SODIUM LAUROYL SARCOSINATE, CITRIC ACID, COCO-GLUCOSIDE, GLYCERYL OLEATE, SODIUM CITRATE, PEG-90 GLYCERYL ISOSTEARATE, MANNITOL, XYLITOL, LAURETH-2, RHAMNOSE, FRUCTOOLIGOSACCHARIDES, TOCOPHEROL, HYDROGENATED PALM GLYCERIDES CITRATE, LECITHIN, ASCORBYL PALMITATE



- ☑ Sensitive skin
- ☑ Acne-prone skin
- ☑ Oily skin

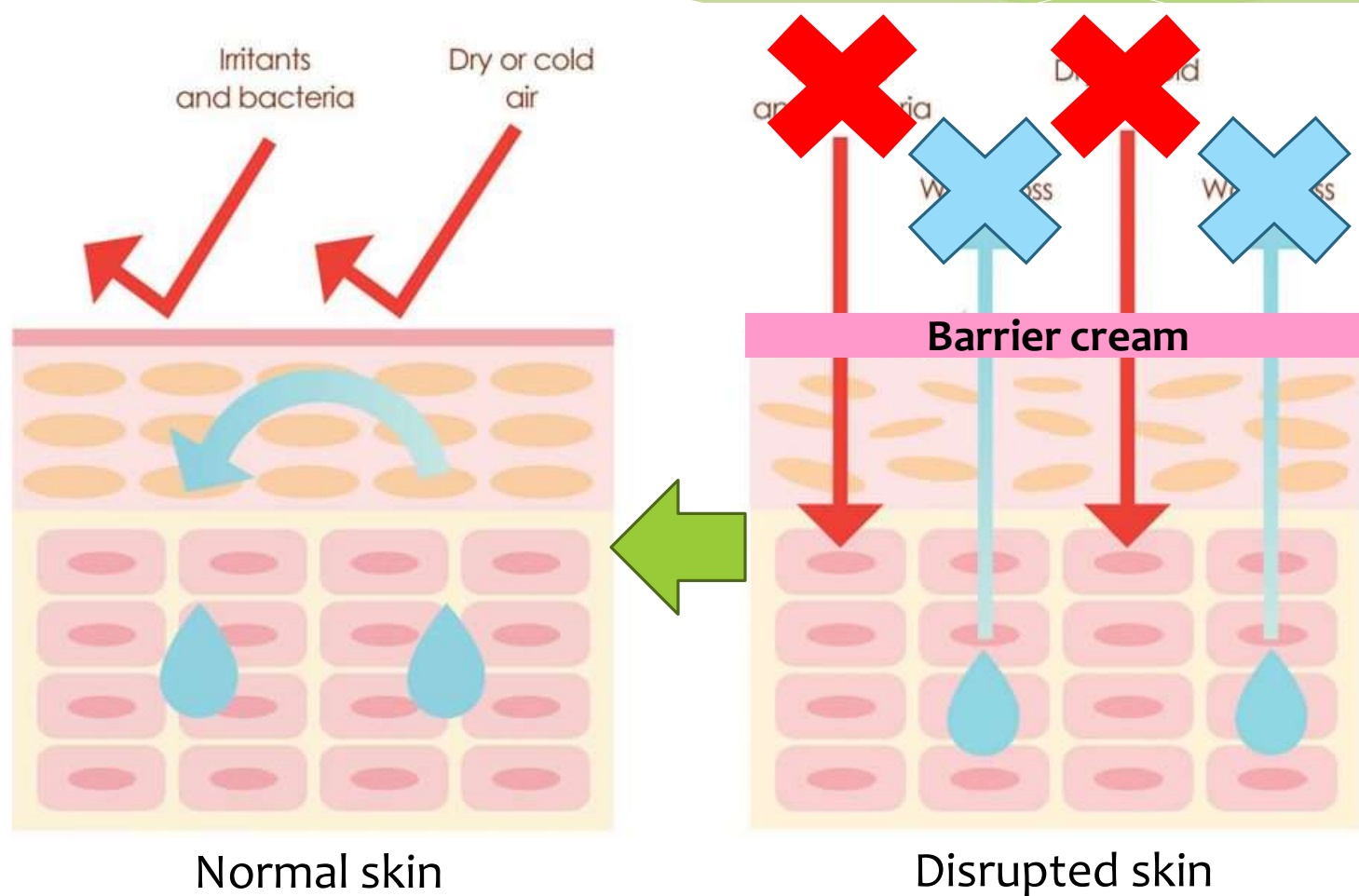
Recommended Facial Cleansers

- ☑ Sensitive skin
- ☑ Acne-prone skin
- ☑ Oily skin

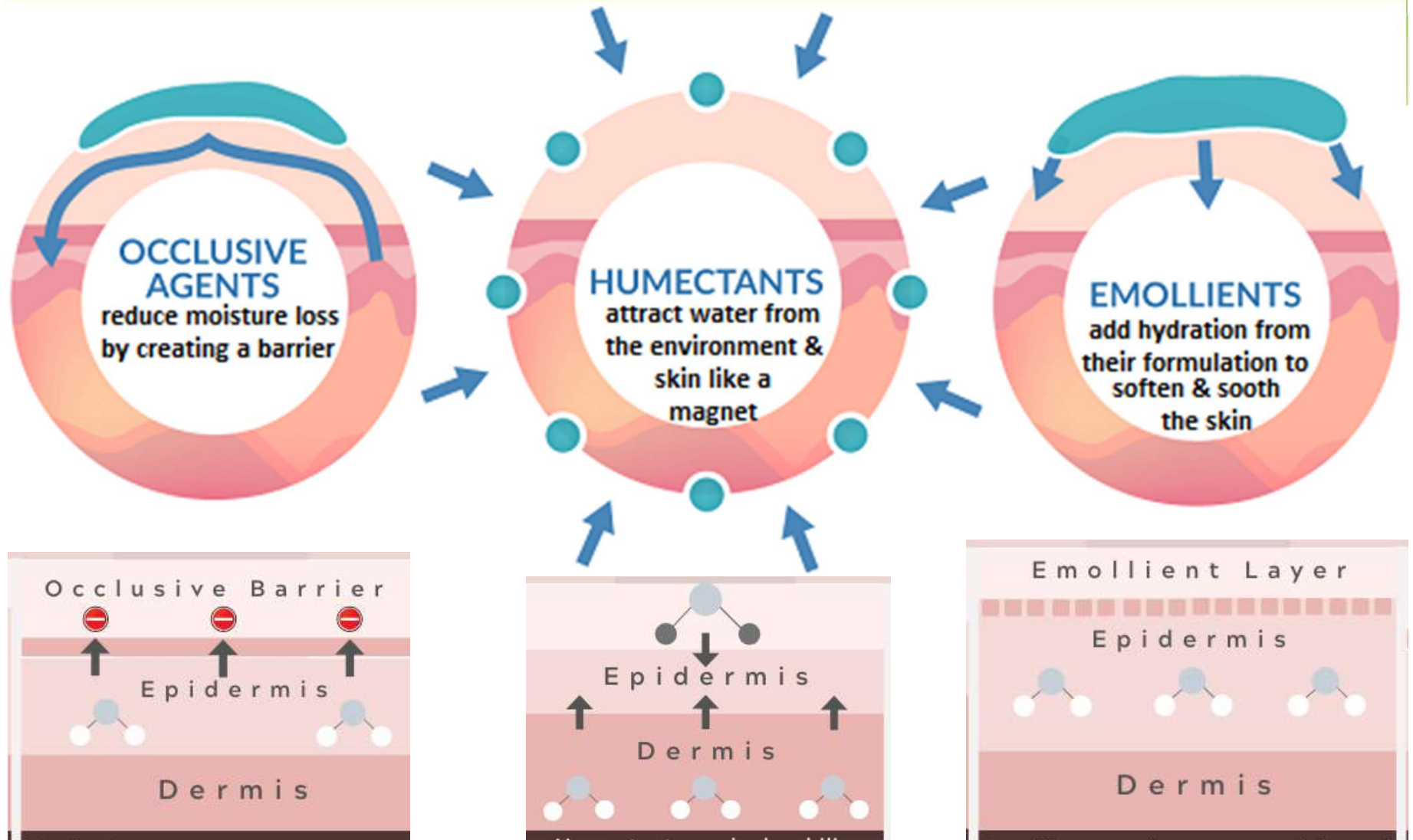


Facial Moisturizers

Irritation from Wearing Mask



Moisturizer Composition



Moisturizer Composition

Occlusives

Emollients

TABLE 2 Occlusive moisturizing ingredients

1. Hydrocarbons: petrolatum, mineral oil, paraffin, squalene
2. Silicones: dimethicone, cyclomethicone, amodimethicone
3. Animal and vegetable fats: lanolin, shea butter, grape seed oil, avocado oil, hemp oil, jojoba oil, sesame seed oil, nut oil
4. Fatty acids: lanolin acid, stearic acid
5. Fatty alcohols: lanolin alcohol, cetyl alcohol
6. Polyhydric alcohols: propylene glycol, butylene glycol
7. Wax esters: lanolin, beeswax, stearyl stearate
8. Vegetable waxes: carnauba, candelilla
9. Phospholipids: lecithin
10. Sterols: cholesterol

TABLE 1 Emollients for soft smooth skin⁴

1. Protective Emollients: diisopropyl dilinoleate and isopropyl isostearate. Create longer lasting protective smooth film on skin surface
2. Fattening Emollients: castor oil, propylene glycol, jojoba oil, isostearyl isostearate, and octyl stearate. Create a slightly greasy longer lasting film on skin surface
3. Dry Emollients: isopropyl palmitate, decyl oleate, and isostearyl alcohol. Create a thin nongreasy film on skin surface
4. Astringent Emollients: dimethicones, cyclomethicones, isopropyl myristate, and octyl octanoate. Create minimal greasy residue reducing the oily feel of other emollients

Humectants

Glycerin
 Alpha hydroxyl acids, for example, glycolic acid, lactic acid
 Sodium pyrrolidine carboxylic acid
 Propylene glycol and butylene glycol
 Hyaluronic acid
 Urea
 Panthenol
 Aluminum lactate and Sodium lactate
 Gelatin
 Sorbitol

What's a Barrier Cream?

- * Barrier creams=Products that primarily act against exogenous substances
- * Ideal should
 - * Provide SC hydration and emolliency to maintain skin integrity
 - * Retain or increase skin water content
 - * Restore and repair the epidermal barrier function



Ingredients for Barrier Repair

- * Niacinamide
- * Retinol
- * Linoleic acid, linolenic acid
- * Ceramides
- * Adenosine
- * Various peptides
- * Extracts or chemicals for
 - * Anti-inflammation
 - * Soothing
 - * Anti-itching

Ingredients for Acne

- * Salicylic acid (desmolytic, comedolytic)
- * Tea tree oil (anti bacterial, anti-inflammatory)
- * Nicotinamide (anti-inflammatory, anti-oxidant)
- * Sulfur (antimicrobial)
- * Zinc (anti-inflammatory, *P. acnes* follicular colonization)

Ingredients for Acne

Table 2 Summary of the known effects and roles of dermocosmetic ingredients in acne treatment regimens.

	Pathogenic factor				Role in treatment regimen		
	Abnormal sebum production	Abnormal keratinization	<i>P. acnes</i> follicular colonization	Inflammation	Maintenance/ monotherapy	Adjunctive therapy	Side-effect management
Antioxidants	✓					✓	✓
Niacinamide (nicotinamide)	✓			✓		✓	✓
Alpha-hydroxy acids		✓			✓	✓	
Salicylic acid		✓		✓	✓	✓	✓
Lipo-hydroxy acid		✓			✓	✓	
Glycolic acid		✓			✓	✓	
Linoleic acid		✓				✓	
Lauric acid			✓			✓	
Retinaldehyde		✓	✓		✓	✓	
Zinc salts		✓	✓	✓		✓	✓
Fatty acids				✓		✓	✓
Oat plantlet extract			✓	✓		✓	✓

Barrier Cream



- * **What:** Protective cream
- * **How:** Apply twice daily to clean skin, ideally after using cleansers
- * **Good for:** Dry, sensitive skin

* Example of ingredients:

WATER, GLYCERIN, MINERAL OIL, ETHYLHEXYL STEARATE, DIMETHICONE, NIACINAMIDE, SUCROSE STEARATE, GLYCERYL DIBEHENATE, FRUCTOOLIGOSACCHARIDES, MANNITOL, XYLITOL, RHAMNOSE, LAMINARIA OCHROLEUCA EXTRACT, PEUMUS BOLDUS LEAF EXTRACT, ZANTHOXYLUM BUNGEANUM FRUIT EXTRACT, TRIBEHENIN, PENTYLENE GLYCOL, GLYCERYL BEHENATE, ACRYLATES/C10-30 ALKYL DIMETHACRYLATE, 1,2-HEXANEDIOL, QUAMMONIUM HYDROXYMETHYL-2-ACRYLATE/VP COPOLYMER, DIMETHYL TETRAHYDRO-2H-PYRAN-2-OL, GLYCERIDE, OLEYL ALCOHOL, XANTHAN GUM, SODIUM HYDROXIDE, DISODIUM EDTA

☑ Sensitive skin

Light-Weight Moisturizer

- * **What:** O/W emulsion
- * **How:** Apply twice daily to clean skin, ideally after using cleansers
- * **Good for:** Oily acne-prone skin

- * **Example of ingredients:**

AQUA/WATER/EAU, GLYCERIN, METHYL METHACRYLATE CROSSPOLYMER, DIPROPYLENE GLYCOL, ZINC GLUCONATE, COCO-CAPRYLATE/CAPRATE, VINYL DIMETHICONE/METHICONE SILSESQUIOXANE CROSSPOLYMER, CAPRYLIC/CAPRIC TRIGLYCERIDE, ARACHIDYL ALCOHOL, BEHENYL ALCOHOL, POLYACRYLATE CROSSPOLYMER-6, SODIUM POLYACRYLATE, GLYCYRRHETINIC ACID, PROPYLENE GLYCOL, ARACHIDYL GLUCOSIDE, SODIUM MINARIA OCHROLEUCA, XYLITOL, SODIUM AMNOSE, GINKGO BILOBA PHEROL, ARIDES, FRAGRANCE (PARFUM)

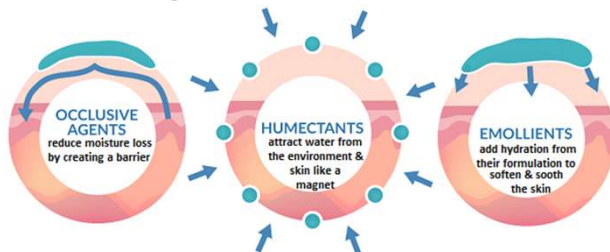


- ☑ Sensitive skin
- ☑ Acne-prone skin
- ☑ Oily skin

Recommended Facial Moisturizers

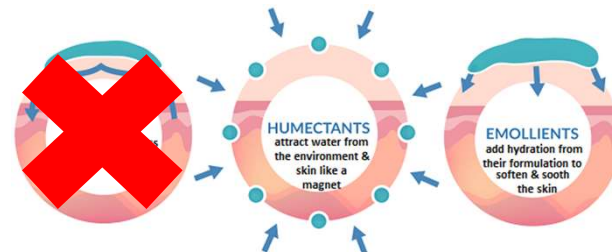
Irritation/Sensitive Skin

- * Barrier creams contain
 - ✓ Occlusives
 - ✓ Humectants
 - ✓ Emollients
 - ✓ Actives for barrier-repair, anti-inflammation, soothing, anti-itching



Acne/Acne-prone skin

- * Light-weight moisturizers contain
 - ✓ Humectants
 - ✓ Emollients
 - ✓ Actives for acne, oil-control





THANK YOU!

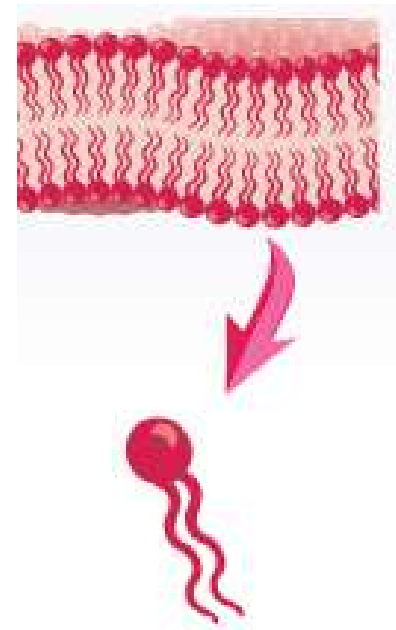
Effects on the Skin

Cleansing agents (Surfactants)



VS

Skin structure



Moisturizer Composition

Active ingredients

- Occlusive
- Humectant
- Emollient
- Active ingredients (for specific purpose)

Excipients

- Emulsifiers
- Antioxidants
- Chelating agent
- Preservative
- Fragrances