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## Review Article

# A Comprehensive Review on Role of Moisturizers in Cosmetic Preparations

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## ABSTRACT

Moisturizers play a pivotal role in maintaining skin hydration, enhancing barrier function, and treating a range of dermatological conditions such as eczema, xerosis, and psoriasis. This comprehensive review explores the classification, mechanisms, key ingredients, and clinical significance of moisturizers. It delves into the core components—occlusives, humectants, emollients, and rejuvenators—each contributing uniquely to skin health. The review also highlights moisturizers tailored for different skin types and conditions, supported by scientific evidence and clinical studies demonstrating their efficacy and safety. Additionally, common myths surrounding moisturizers are addressed, along with guidelines for selecting and applying the right product. Through evidence-based insights and practical recommendations, this article aims to serve as a reference for both healthcare professionals and consumers in understanding the therapeutic and cosmetic value of moisturizers.

## INTRODUCTION

Moisturizers are crucial dermatological products used across various fields, including cosmetics, pharmacy, and skincare<sup>1,2</sup>. They are primarily designed to enhance the hydration of the skin, restore its protective barrier, and treat a range of skin conditions such as eczema, xerosis, and other dermatological issues<sup>3</sup>. The key function of

moisturizers is to increase the water content in the stratum corneum, the outermost layer of the skin, which is essential for maintaining skin integrity and flexibility. By promoting water retention, moisturizers help prevent dry, flaky skin and improve its texture, making it smoother and more pliable<sup>1,3</sup>. The basic components of moisturizers typically include occlusives, humectants, and emollients, each serving a different purpose in enhancing skin hydration and health. While

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occlusives trap moisture, humectants attract it, and emollients smooth the skin's surface.<sup>2</sup> In addition to their moisturizing benefits, many moisturizers also offer anti-inflammatory, antimicrobial, and wound-healing effects, contributing to their widespread use in treating dry skin and other skin disorders.<sup>1</sup> Despite their widespread application, moisturizers are generally considered safe, with fewer side effects compared to prescription drugs. However, irritation, allergies, or discomfort like burning sensations, stinging, or itching may occur, which dermatologists must consider when recommending products. Factors such as the aesthetic appeal and clinical efficacy of moisturizers, as well as their potential for irritation, are essential for ensuring patient adherence and safety.<sup>2,1</sup> The development and evaluation of moisturizers are ongoing, with researchers examining the various ingredients, methods of preparation, and potential applications to optimize their performance.<sup>1</sup>

## 2. Types Of Moisturizers

In addition to the main categories of moisturizers occlusives, humectants, emollients, and rejuvenators several other components and considerations shape the effectiveness of these products. This section delves deeper into each category, including specific ingredients, their additional benefits, and some emerging trends in skincare.

### 1. Occlusives (Prevent Water Loss)

Occlusives are crucial for reducing trans epidermal water loss (TEWL) by forming a hydrophobic barrier over the skin. They are essential for sealing moisture within the skin, especially for those with compromised skin barriers, like in atopic dermatitis or xerosis (dry skin). The effectiveness of occlusives is particularly notable when applied

to moist skin, as it enhances their ability to trap water.

- Petrolatum (also known as petroleum jelly) is the gold standard occlusive, providing unmatched moisture retention. It can reduce water loss by as much as 99% and is often used in clinical settings for conditions such as eczema and psoriasis.
- Dimethicone is another commonly used occlusive, particularly in products designed for sensitive skin due to its non-comedogenic and hypoallergenic properties. However, its ability to reduce fine lines caused by dehydration is less effective compared to petrolatum.<sup>5</sup>
- Mineral oils and wax esters like beeswax and lanolin are other examples of occlusives. While mineral oils are effective at creating a moisture barrier, they can cause acneiform eruptions or folliculitis in some individuals due to their occlusive nature.<sup>5</sup>
- Occlusives are not only effective at hydrating but also play a protective role by preventing external irritants (like pollutants) from entering the skin. However, their greasy feel and the risk of clogged pores (especially with heavier formulations) are considerations when choosing an occlusive product.

### 2. Humectants (Attract Water)

Humectants are hygroscopic compounds that bind to water, either drawing moisture from the environment (in humid conditions) or from deeper skin layers (if humidity is low). They are key players in hydration but can increase TEWL if used in isolation, which is why they are usually paired with occlusives in most moisturizers.

- Glycerine is one of the most commonly used humectants. Its water-attracting properties help to retain moisture within the skin, preventing dehydration. Additionally, glycerin

is known for stimulating aquaporins (water channels) in the skin, which enhances water retention at the cellular level.<sup>4</sup>

- Urea is a powerful humectant known for its ability to improve skin hydration. At lower concentrations (10%), urea increases water absorption, while at higher concentrations (20-30%), it acts as a keratolytic agent, promoting exfoliation. It has been shown to reduce TEWL in conditions like ichthyosis and atopic dermatitis.<sup>5</sup>
- Alpha-hydroxy acids (AHAs), such as lactic acid and glycolic acid, also have humectant properties, drawing water into the skin while promoting exfoliation and enhancing the skin's barrier function. Lactic acid specifically helps in ceramide synthesis, contributing to improved lipid barrier function and better resistance against dry skin (xerosis).<sup>5</sup> ➤ Hyaluronic acid, a well-known humectant, holds up to 1,000 times its weight in water and is particularly prized for its ability to provide deep hydration and plump the skin.
- Humectants are hydrophilic substances that attract and bind water from the environment or deeper skin layers.<sup>6</sup>
- Glycerin and urea are powerful humectants used in various formulations to increase skin hydration and reduce dryness.<sup>6</sup>

### 3. Emollients (Improve Skin Texture)

Emollients are compounds that improve the skin's appearance and texture by filling the gaps between corneocytes (skin cells in the outermost layer). They create a smoother, softer, and more flexible surface, contributing to the skin's overall aesthetics.

- Essential fatty acids, such as linoleic acid, are often used in emollients. These fatty acids play a key role in maintaining skin integrity and

supporting the skin's barrier function. They are naturally found in plant oils like canola oil and olive oil and help in regulating inflammatory pathways.<sup>5</sup>

- Squalane, derived from squalene, is a widely used emollient that hydrates and smooths the skin without leaving a greasy residue. It is a saturated form of squalene and is more stable, which makes it suitable for moisturizing products. Squalane is also known for its antioxidant properties and its ability to protect skin from UV- induced damage.<sup>5</sup>
- Fatty alcohols like cetyl alcohol and stearic acid are also commonly used as emollients. These help in emulsifying formulations and improving the texture of the product.<sup>5</sup>
- While emollients are effective for improving the skin's feel and appearance, they do not directly address water loss or hydration unless paired with humectants or occlusives.

### 4. Rejuvenators (Restore Skin Proteins)

- Collagen, keratin, and elastin are important components of the skin's extracellular matrix and contribute to its elasticity and strength. However, due to their large molecular size, these proteins have difficulty penetrating the skin's barrier. Instead, rejuvenators often create a superficial effect by forming a film on the skin's surface, improving its appearance.
- Rejuvenators are often included in formulations targeting aged or photo- damaged skin, where they can temporarily reduce the visibility of fine lines or sagging skin.<sup>4</sup>
- Rejuvenators are aimed at restoring important skin proteins like collagen, elastin, and keratin, which provide structural support to the skin. These ingredients are used primarily for their anti-aging effects, as they can help to reduce fine lines and wrinkles.

- Despite their benefits, rejuvenators may not provide as long-lasting or deep effects as emollients and occlusives, especially for those seeking more substantial skin restructuring or long-term hydration.

### 3. Key Ingredients of Moisturizers

Moisturizers are essential for maintaining skin health, and their effectiveness depends largely on the ingredients used. These ingredients serve various functions, from attracting moisture to the skin, forming protective barriers, enhancing skin texture, to protecting against environmental damage. Below is a more detailed breakdown of the key ingredients found in moisturizers.

#### 1. Humectants: Attracting and Retaining Moisture

Humectants are substances that draw moisture into the skin, helping maintain hydration levels. They work by attracting water from the environment or deeper layers of the skin to the surface. Common humectants include:

- **Glycerin:** One of the most widely used humectants, glycerin is derived from vegetable oils and has the ability to attract moisture to the skin. It also helps in breaking down the bonds between skin cells, promoting smoother skin.<sup>7,8</sup>
- **Hyaluronic Acid:** A naturally occurring compound in the skin, hyaluronic acid has a remarkable ability to hold up to 1,000 times its weight in water, making it a top ingredient for deep hydration and plumping the skin. It hydrates without leaving a greasy residue and is suitable for all skin types. However, in dry climates, it may cause dryness for some individuals.<sup>8</sup>
- **Urea:** Naturally found in the skin, urea serves both as a humectant and a gentle exfoliant.

While it deeply hydrates, it can sometimes cause irritation, especially for sensitive skin types.<sup>7</sup>

- **Sorbitol:** Another sugar alcohol, sorbitol is known for its potent humectant properties. Like glycerin, it draws moisture from the air or deeper skin layers but can also cause dryness in very dry climates.<sup>7</sup>

**2. Occlusives:** Creating a Barrier to Lock in Moisture Occlusive ingredients form a barrier on the skin's surface that helps prevent water from evaporating. They are particularly effective when applied to damp skin, as they seal in hydration.

- **Petroleum Jelly (Petrolatum):** One of the most effective occlusives, petroleum jelly forms a thick, protective layer on the skin, preventing moisture loss. However, its greasy texture can be a drawback for some.<sup>7</sup>
- **Mineral Oil:** Often used for its light texture, mineral oil is not as effective as petroleum jelly in preventing moisture loss but still serves as a decent occlusive. It is a refined form of petroleum and is commonly used in many moisturizers.<sup>7</sup>
- **Silicone Derivatives (Dimethicone, Cyclomethicone)** These synthetic ingredients are often used in moisturizers because they create a smooth, non-greasy barrier. While they do prevent moisture loss, they offer limited hydration compared to heavier occlusives.<sup>7</sup>
- **Lanolin:** Derived from sheep's wool, lanolin acts as both an occlusive and an emollient. It is highly effective at locking in moisture but can be irritating for people with sensitive skin or those prone to allergies.<sup>7,9</sup>

#### 3. Emollients: Softening and Smoothing the Skin

Emollients help soften and smooth the skin by filling the gaps between cells. They often work in



tandem with occlusives and humectants to improve the texture of the skin and maintain moisture.

- **Shea Butter:** Rich in vitamins A, E, and F, shea butter is a deeply nourishing emollient that provides both hydration and soothing properties. It is particularly beneficial for dry, irritated, or sensitive skin.<sup>8</sup>
- **Isopropyl Palmitate:** This emollient, derived from palm oil, is thick and acts as a lubricant, creating a soft texture. However, it can clog pores in some individuals, leading to breakouts, especially for those with acne-prone skin.<sup>7</sup>
- **Stearic Acid:** Derived from animal and plant fats, stearic acid works as an emollient and emulsifier, helping to create smooth textures. However, it may cause irritation in some sensitive skin types.<sup>7</sup>
- **Mineral Oil:** Besides being an occlusive, mineral oil also acts as an emollient, softening the skin. Its non-comedogenic nature makes it a favorable choice for sensitive or acne-prone skin.<sup>9</sup>

**4. Antioxidants:** Protecting the Skin from Free Radical Damage Antioxidants protect the skin from environmental stressors like UV rays, pollution, and free radicals that cause premature aging. They help neutralize the damaging effects of oxidation and promote skin repair.

- **Vitamin E (Tocopherols):** As one of the most well-known antioxidants, vitamin E helps protect the skin from oxidative damage, supports the healing process, and has anti-inflammatory properties.<sup>7,8,9</sup>
- **Vitamin C (Ascorbic Acid):** Vitamin C is a potent antioxidant that brightens the skin while protecting it from UV-induced damage. It helps reduce hyperpigmentation and supports

collagen production, making it beneficial for anti-aging.<sup>7,8,9</sup>

- **Green Tea Extract:** Green tea is rich in polyphenols that have anti-inflammatory and antioxidant effects. It is particularly beneficial for calming irritated skin and protecting it from UV damage.<sup>8,9</sup>

## 5. Other Beneficial Ingredients for Skin Health

**Ceramides:** Lipids that are naturally present in the skin, ceramides play a crucial role in maintaining the skin's moisture barrier. They help lock in hydration, reduce moisture loss, and protect against environmental damage.<sup>8</sup>

- **Niacinamide (Vitamin B3):** Niacinamide helps improve the skin's moisture retention, reduce redness and irritation, and brighten the complexion. It strengthens the skin's barrier and makes it less susceptible to environmental stress.<sup>8</sup>
- **Peptides:** Short chains of amino acids, peptides stimulate collagen production, which is essential for maintaining skin elasticity and firmness. They help reduce the appearance of fine lines and wrinkles, making them a key anti-aging ingredient.<sup>8</sup>
- **Fatty Acids (e.g., Linoleic Acid):** These essential fatty acids help replenish the skin's lipid barrier, maintaining skin's moisture and elasticity. They are particularly beneficial for individuals with conditions like acne or eczema, as they regulate sebum production.<sup>8,9</sup>

## 4. Moisturizers for Specific Conditions

Moisturizers are essential for maintaining hydrated, healthy skin, and choosing the right one depends largely on individual skin types and conditions. Here's an integrated summary from three articles discussing the best moisturizer

options for various skin types, with references included.

## 1. Dry Skin

For individuals with dry skin, moisturizing is crucial to combat water loss and prevent further dehydration. Recommended moisturizers should contain rich, nourishing ingredients such as ceramides, glycerin, shea butter, and petrolatum. These ingredients work to lock in moisture, reduce water loss, and restore skin's natural barrier. Ointments or creams with thicker consistencies are ideal since they offer superior hydration and a barrier against environmental factors. Occlusives like mineral oil and petrolatum are especially beneficial for those with very dry or cracked skin, providing a greasy layer to prevent moisture from escaping.<sup>10,11,12</sup>

- People with dry skin need to look for a moisturizer that contains rich, nourishing ingredients such as shea butter, ceramides, and glycerin.<sup>10</sup>
- For dry skin, creams and ointments are preferred, as they add more moisture and preserve more water than lotions.<sup>11</sup>
- Therapeutic moisturizers for dry, inflamed skin contain ingredients like colloidal oatmeal and ceramides, which help reduce irritation and improve skin hydration.<sup>12</sup>

Therapeutic moisturizers designed for dry, inflamed skin, such as those containing colloidal oatmeal, provide additional relief for conditions like eczema, offering both hydration and irritation reduction. These products also help manage itchiness and can be used as adjuncts to prescription medications for moderate to severe dry skin conditions (e.g., atopic dermatitis).

## 2. Oily Skin

Oily skin requires a lighter moisturizer to avoid clogging pores and exacerbating acne. Gel-based moisturizers with hyaluronic acid or glycerin are recommended because they provide hydration without being greasy. It's important to select oil-free products, as heavier creams or oils can lead to breakouts. In some cases, people with oily skin may even skip moisturizer altogether, especially if their skin produces sufficient natural oils. However, when choosing a moisturizer, water-based options work best to maintain hydration without the risk of excess oil buildup.

- Those with oily skin should choose a lightweight and oil-free moisturizer... they should consider using a gel-based moisturizer.<sup>10</sup>
- For oily skin, Dr. Clark recommends considering skipping the moisturizer or opting for a gel, which is lighter than other types of moisturizer.<sup>11</sup>

## 3. Combination Skin

Combination skin can be tricky as different areas of the face may be dry or oily. The T- zone (forehead, nose, and chin) often produces more oil, while the cheeks may be drier. A lightweight, oil-free moisturizer that hydrates without oversaturating oily areas is ideal. Humectants like glycerin and dimethicone help maintain balanced hydration, while occlusive agents ensure moisture is sealed in without aggravating the oilier regions of the face. One recommendation is to moisturize only the dry areas and avoid applying it to areas like the nose, which may not require additional moisture.

- People with combination skin should choose a lightweight, oil-free moisturizer that is still hydrating enough to address any dryness.<sup>11</sup>



- Treat combination skin as though it's two faces moisturize the dry spots and skip the oily areas.<sup>11</sup>

#### 4. Sensitive Skin

Sensitive skin requires extra caution when choosing a moisturizer to avoid irritation. Products should be fragrance-free and hypoallergenic, ideally containing soothing ingredients such as aloe vera, chamomile, or ceramides. Moisturizers formulated for sensitive skin should be gentle and avoid harsh chemicals, preservatives, or alcohol. It's important to choose products with minimal ingredients to reduce the risk of allergies or flare-ups, especially in conditions like eczema or rosacea. Emollients that smooth and soften the skin can be helpful, but they should not contain potential irritants.

- People with sensitive skin need to look for a fragrance-free and hypoallergenic moisturizer and avoid products that contain harsh chemicals or preservatives.<sup>10</sup>
- For sensitive skin, avoid products with fragrances and alcohol, and opt for soothing ingredients like aloe vera and chamomile.<sup>11</sup>
- Therapeutic moisturizers for sensitive skin should contain ingredients that repair the skin barrier function without triggering irritation.<sup>12</sup>

#### 5. Mature Skin

As skin ages, it tends to lose moisture and become thinner, requiring richer moisturizers. Cream-based formulas with ingredients such as peptides, retinol, or hyaluronic acid can help improve skin texture, promote collagen production, and reduce fine lines and wrinkles. A thicker moisturizer, such as an ointment or cream, is recommended to provide deep hydration and improve skin elasticity, particularly for people over the age of 50.

- Older people should choose a moisturizer with a richer consistency, such as a cream or ointment, to provide deeper hydration.<sup>10</sup>
- For perimenopausal and older individuals, a cream-based moisturizer is recommended as skin loses its natural ability to hold moisture.<sup>10</sup>

#### 5. How Does Moisturizer Works on Skin

Moisturizers are essential in maintaining skin hydration and integrity, especially for damaged or dry skin. The core function of moisturizers is to prevent water loss from the skin (transepidermal water loss, or TEWL) and restore the skin barrier, a process that is vital for protecting the skin from external irritants and maintaining flexibility. The stratum corneum, the outermost layer of the skin, plays a crucial role in moisture retention. It functions as a "bricks and mortar" structure, where corneocytes (skin cells) act as the "bricks," and intercellular lipids (such as ceramides, cholesterol, and fatty acids) form the "mortar" that holds the cells together<sup>13</sup>. When these lipids are damaged or reduced, the skin loses its ability to retain moisture, leading to dryness. Moisturizers restore this moisture balance through a multi-step process that includes repairing the skin barrier, increasing water content, reducing water loss, and enhancing the skin's ability to absorb and retain moisture.<sup>13,14</sup>

#### Key Mechanisms of Moisturizers

1. Occlusion: Moisturizers create a barrier on the skin's surface that prevents moisture from evaporating, which helps retain hydration<sup>14</sup>. This function is particularly crucial in environments that dry out the skin or during conditions where the skin barrier is compromised, such as in dermatitis or inflammatory skin diseases.<sup>15</sup>
2. Humectancy: Humectants, such as glycerin, pull water from the deeper layers of the skin to



the outermost layer (stratum corneum), helping to maintain moisture levels.<sup>14,15</sup> This ensures that the skin remains hydrated and flexible.

3. **Emollience:** The emollient components of moisturizers smooth the skin's surface and fill spaces between skin flakes, improving texture and reducing roughness.<sup>14,15</sup> These ingredients also help prevent excessive exfoliation by regulating the turnover of skin cells (desquamation), ensuring that dead cells are shed uniformly without compromising the skin's barrier function.<sup>14</sup>
4. **Lipids and Barrier Repair:** Many moisturizers contain lipids similar to those naturally found in the stratum corneum. These lipids are crucial in reinforcing the skin's lipid barrier, helping to repair and maintain its function. This repair process not only enhances moisture retention but also protects the skin from external irritants, reducing symptoms like itching and inflammation.<sup>15</sup>

### Impact on skin diseases

In conditions like eczema, psoriasis, or other forms of dermatitis, the skin barrier is often impaired, which leads to increased TEWL and dryness. Applying moisturizers in these cases is beneficial as they not only hydrate the skin but also help restore its natural barrier function. This process alleviates symptoms such as itching, stinging, and flakiness, which are common in various skin conditions.<sup>15</sup> In some cases, moisturizers with additional lipids can directly influence the synthesis of skin lipids and improve the overall function of the epidermis.<sup>15</sup>

### 6. Research and Evidence:

In the systematic review conducted by van Zuuren et al. (2017), the research team aimed to evaluate

the safety and effectiveness of moisturizers for individuals with eczema. They included 41 studies that tested various types of emollients and moisturizers, reviewing both their therapeutic benefits and any adverse effects. The key findings are as follows:

- **Evidence of Safety:** The study concluded that none of the 41 included studies found moisturizers to be unsafe.
- **Side Effects:** While rare, some participants reported mild adverse effects, such as:
- **Stinging or Itching:** Some subjects experienced irritation like itching or a stinging sensation after using the moisturizers.
- **Skin Discoloration:** A small number of participants noticed their skin appeared redder or darker after using moisturizers.
- **Sore Red Spots:** A few subjects experienced sore, red spots (likely from a mild allergic or sensitivity reaction).
- **Conclusion:** The study supports that moisturizers are safe for most people with eczema, but individuals with sensitive skin or certain allergies may experience mild side effects. It also provides guidelines for choosing the right moisturizer and applying it correctly to avoid such adverse reactions.<sup>16</sup>
- In Nisbet's study (2023), the focus was on assessing the acceptability and tolerance of a cosmetic moisturizer specifically in female subjects with sensitive skin.<sup>17</sup> These study was designed to evaluate how the moisturizer impacted individuals prone to skin sensitivity, and it involved the following steps:
- **Stinging Test:** Prior to using the product, a stinging test was performed using 10% lactic acid, and the subjects were graded on the intensity of their reactions (ranging from no sensation to severe burning).



- **Daily Use Protocol:** Participants were asked to apply the cosmetic moisturizer twice daily for 21 days to both their face and body.

### **Adverse Events (AEs):**

- **No significant AEs:** None of the subjects experienced severe adverse events throughout the study.
- **Mild Discomfort:** One subject reported mild prickling and itching (though not intense enough to be classified as AEs) immediately after applying the moisturizer. These sensations lasted only up to 10 minutes and resolved once the product absorbed.
- **Clinical Assessment:** Dermatological assessments showed no signs of erythema, edema, or skin peeling at the site of moisturizer application.
- **Summary of Evidence from the above researches:**
- Both studies indicate that moisturizers are generally safe for individuals with eczema or sensitive skin, though mild side effects like itching, stinging, or mild redness may occur. However, these effects are not severe and typically resolve quickly.
- The Nisbet study specifically supports that cosmetic moisturizers are acceptable for use in people with sensitive skin, showing minimal discomfort after consistent use over a prolonged period.
- The van Zuuren review provides a broader perspective, consolidating evidence from multiple studies to affirm that moisturizers do not pose significant harm for eczema patients, though it emphasizes the importance of selecting the right product and applying it correctly to minimize adverse reactions.<sup>16</sup>

## **7. How to Choose A Right Moisturizer:**

### **1. Understand Your Skin Type**

The first step in selecting a moisturizer is identifying your skin type. Normal skin is balanced, neither too oily nor too dry. Oily skin produces excess oil, leading to shine and sometimes acne. Dry skin lacks sufficient oil, which can cause tightness and flakiness. Combination skin experiences both oily areas (like the T-zone) and dry patches.<sup>18</sup> A quick skin test at home can help determine your type: if you see no oil on a tissue after pressing it against your face, you likely have dry skin. A slight oil stain suggests normal skin, while a large stain indicates oily skin. If only certain areas are oily, you likely have combination skin.<sup>19</sup>

### **2. Select the Right Moisturizer Texture**

Moisturizers come in different textures, ranging from lightweight gels to heavy creams. The texture you choose should depend on your skin type:

- Featherweight moisturizers are ideal for oily skin, providing hydration without feeling greasy. These are often lightweight serums or gels that absorb quickly.<sup>18</sup>
- Lightweight moisturizers are a good option for combination skin, offering a balance of hydration without overwhelming either dry or oily areas.<sup>18</sup>
- For dry skin, choose medium-weight moisturizers that contain nourishing oils and lipids to help restore moisture levels. These moisturizers tend to be thicker and richer, providing lasting hydration.<sup>18</sup>
- Heavyweight moisturizers are best for aging skin, as they provide deep hydration and help address issues like fine lines and loss of elasticity.<sup>20</sup> The weather also plays a role in which moisturizer works best for your skin. In humid weather, people with oily skin should use gel-based moisturizers, while oil-based



creams are better for dry skin during cold, dry months.<sup>19</sup>

### 3. Consider Sensitivities and Ingredients

Ingredient sensitivity is another factor to consider. Products with strong fragrances can irritate sensitive or acne-prone skin, leading to breakouts. If you have such concerns, look for fragrance-free moisturizers, as these are typically safer and less likely to cause irritation.<sup>19</sup> Opt for non-comedogenic moisturizers if you have oily skin, as they won't clog pores. If you have sensitive skin, checking for hypoallergenic labels can help reduce the risk of an allergic reaction.<sup>19</sup> For aging skin, look for ingredients like hyaluronic acid or ceramides, which help retain moisture and improve elasticity. These ingredients are often found in heavier, anti-aging creams designed to reduce fine lines and wrinkles.<sup>18</sup>

### 4. Adapt Your Moisturizer to the Seasons

Moisturizer needs can change depending on the climate. During humid seasons, people with oily skin should use gel-based moisturizers, while those with dry skin will benefit from a slightly

richer, oil-based formula that provides moisture without being overly heavy.<sup>19</sup> In dry seasons, heavier, oil-based creams are better for dry skin, while lighter, water-based formulas work best for oily skin. Combination skin can often benefit from a medium-weight moisturizer, which can handle both dry and oily areas.<sup>19</sup>

### 5. Natural vs. Organic: What to Know

Natural and organic products are popular in skincare, but the terms are not always clearly defined. Natural products may use botanical ingredients but can still include chemicals, while organic products must adhere to specific standards to be certified. However, even "organic" skincare can have ingredients that don't suit everyone.<sup>19</sup> When choosing natural or organic options, it's crucial to look beyond the label and ensure the product fits your skin's needs, as the presence of "organic" ingredients does not always guarantee better results.<sup>19</sup>

### 8. Top Brands and Popular Moisturizer Products.<sup>21</sup>

| Sr No | Brand    | Product Name                         | Key Ingredients                                                                                              | Benefits                                                                                    |
|-------|----------|--------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 1     | Cipla    | Excela Moisturizer Cream             | Glycerine, Niacinamide, Zinc PCA                                                                             | Fights acne and manages excess oil.                                                         |
| 2     | Venusia  | Max Intensive Moisturizing Lotion    | Glycerin, Shea Butter, Aloe Butter, Cocoa Butter                                                             | Provides intense hydration, improves skin elasticity and give s a smooth texture.           |
| 3     | Ipca     | Acne-OC Sebum Regulating Moisturizer | Pistacia Lentiscus Gum, Helianthus Annuus Seed Oil, Cinnamomum Cassia Bark Extract, Zingiber Officinale Root | Helps in reducing acne, regulates sebum production, and prevents clogged pores.             |
| 4     | Boroline | Boroline SX Cream                    | Boric Acid, Zinc Oxide                                                                                       | Soothes and protects the skin, treats Minor cuts and burns, And reduces inflammation.       |
| 5     | Cetaphil | Cetaphil Moisturising Cream          | Glycerin, Petrolatum, Sweet Almond Oil, Tocopheryl Acetate (Vitamin E)                                       | Provides long-lasting hydration, protects the skin barrier, and is gentle on sensitive skin |
| 6     | Geltec   | Hyalu-Gel                            | Hyaluronic Acid                                                                                              | Plumps the skin, and Reduces fine Lines and wrinkles.                                       |

## 9. Best Tips and Practices for Moisturizer Application

### 1. Timing of Application

- **Apply on Damp Skin:** The optimal time to apply moisturizer is within 3 minutes after cleansing or showering while the skin is still damp, as this helps lock in moisture and enhances absorption.<sup>22</sup>
- **Post-Shower Moisturizing:** Apply moisturizer right after bathing, as hot water can strip natural oils, making the skin more prone to dehydration.<sup>22</sup>
- **Night-time Routine:** Apply thicker, restorative creams at night, as the skin is in repair mode. Look for ingredients like peptides, ceramides, and retinol.<sup>22</sup>
- **Daytime Use:** For daytime, opt for a lighter moisturizer that can also serve as a primer for makeup. Don't forget an SPF moisturizer if you're heading outdoors.<sup>22</sup>

### 2. Key Ingredients to Look For:

- **Hydrating Ingredients:** Look for moisturizers containing oils (jojoba, coconut, avocado) and butters (shea, cocoa) for dry skin. Water-binding agents like glycerin can also be effective.<sup>23</sup>
- **Ointments for Severe Dryness:** For extremely dry or chapped skin, products with lanolin, petrolatum, or shea butter provide deep hydration.<sup>23</sup>
- **Sensitive Skin:** Mild, gentle soaps and moisturizers are ideal for sensitive skin to avoid stripping the skin barrier.<sup>23</sup>

## 3. Application Methods

- **The "Magic 3-Minute Rule":** Apply moisturizer within 3 minutes of drying off after bathing or cleansing to lock in hydration before evaporation begins.<sup>23</sup>
- **Upward Strokes:** When applying moisturizer, use upward strokes to avoid tugging delicate skin, especially around the eyes and neck.<sup>22</sup>
- **Don't Overdo It:** A pearl-sized amount of moisturizer is usually enough for the face. Applying too much can result in a greasy residue.<sup>22</sup>

## 4. Moisture Retention

- **Layering with Serums:** Apply your moisturizer on top of serums to enhance the delivery of active ingredients.<sup>22</sup>
- **Exfoliate Regularly:** Exfoliate 2-3 times a week to remove dead skin cells and help moisturizers penetrate deeper.<sup>22</sup>
- **Moisturize Hands & Neck:** The hands and neck often get neglected, so be sure to moisturize these areas, particularly after washing hands. Consider using specialized hand creams or neck creams.<sup>22,23</sup>
- **Adjust to the Season:** In winter, use richer, occlusive moisturizers to combat the drying effects of cold air. In summer, opt for lighter formulas.<sup>22</sup>

## 5. Key Ingredients to Look For:

- **Hydrating Ingredients:** Look for moisturizers containing oils (jojoba, coconut, avocado) and butters (shea, cocoa) for dry



skin. Water-binding agents like glycerin can also be effective.<sup>23</sup>

- **Ointments for Severe Dryness:** For extremely dry or chapped skin, products with lanolin, petrolatum, or shea butter provide deep hydration.<sup>23</sup>
- **Sensitive Skin:** Mild, gentle soaps and moisturizers are ideal for sensitive skin to avoid stripping the skin barrier.<sup>23</sup>

## 6. Application Methods

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## 7. Moisture Retention

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