



The Essential Role of Moisturizer in Dermatology

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A B S T R A C T

Moisturizer has an important role in maintaining healthy skin. Healthy skin has sufficient moisture and is maintained, so it can function properly as a protector and barrier against harmful outside agents, such as pollution and infection. This literature review aimed to describe the role of a moisturizer in maintaining healthy skin. Moisturizer helps keep the skin moist so that the skin does not become dry and irritated. Skin that is too dry can damage the skin easily and lead to skin problems such as eczema or psoriasis. Moisturizers containing antioxidants can help protect the skin from free radical damage and prevent premature aging. Antioxidants like vitamins C and E can help prevent wrinkles, fine lines, and dark spots on the skin.

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1. Introduction

Moisturizer is a skin care product that is used to maintain moisture and soften the skin. Moisturizers are generally in the form of creams, lotions, or serums and can be used on the face, neck, and other parts of the body. Moisturizer works by retaining moisture in the skin and preventing the loss of the skin's natural moisture. Well-hydrated skin tends to look healthier and smoother, and it's easier to absorb other skincare products like serums and face creams.^{1,2}

Moisturizers usually contain ingredients such as glycerin, hyaluronic acid, ceramides, and vitamin E, which work to seal in moisture and help repair damaged skin.³ Some moisturizers also contain active ingredients such as retinol and vitamin C, which help increase the effectiveness of other skin care products and protect the skin from environmental damage such as UV rays and pollution. Moisturizer is very important

in daily skin care, especially for people who have dry or sensitive skin or for people who live in dry or cold climates.^{4,5} This literature review aimed to describe the role of a moisturizer in maintaining healthy skin.

The benefits of using a moisturizer

Moisturizer has an important role in maintaining healthy skin. Healthy skin has sufficient moisture and is maintained so that it can function properly as a protector and barrier against harmful outside agents, such as pollution and infection. Some of the benefits of a moisturizer for skin health are maintaining skin moisture, preventing premature aging, reducing inflammation, helping wound healing, making skin smoother, and improving skin health.^{6,7}

Moisturizer helps keep the skin moist so that the skin does not become dry and irritated. Skin that is too dry can damage the skin easily and lead to skin

problems such as eczema or psoriasis. Moisturizers containing antioxidants can help protect the skin from free radical damage and prevent premature aging. Antioxidants like vitamins C and E can help prevent wrinkles, fine lines, and dark spots on the skin. Moisturizers that contain healing ingredients, such as aloe vera and aloe vera, can help heal injured or irritated skin. These ingredients can help reduce inflammation and accelerate skin healing. Moisturizers can help reduce inflammation in the skin because its main function is to maintain skin moisture and health. Dry, irritated skin can trigger inflammation and exacerbate existing skin conditions.^{8,9}

Moisturizers can make the skin softer and smoother by helping remove dead skin cells and maintaining the skin's natural moisture. By maintaining skin moisture and health, a moisturizer can help improve overall skin health. Healthy skin can protect the body from infection, disease, and adverse environmental factors.^{10,11}

Selection of moisturizer according to skin type

Every skin type requires different care, including the selection of skin care products such as cleansers, toners, serums, and moisturizers. Choosing the right moisturizer is very important for maintaining healthy skin and avoiding unwanted skin problems. There are several types of skin that can be differentiated based on their characteristics and conditions, namely normal skin, dry, oily, combination, sensitive, and mature skin.^{11,12}

Normal skin has a smooth and healthy texture, is not excessively oily or dry, and does not have specific skin problems such as acne or redness. Dry skin tends to look rough, dull, and flaky due to a lack of moisture. Dry skin can be very sensitive and easily irritated. The recommended moisturizer for dry skin is a moisturizer that contains ingredients that can lock in moisture, such as petrolatum or mineral oil. Moisturizers that contain hyaluronic acid can also help attract moisture to the skin. Moisturizers that contain ingredients like aloe vera, aloe vera, and oats can help soothe inflamed skin and reduce inflammation. In addition, a moisturizer that contains anti-inflammatory ingredients such as salicylic acid or green tea extract can help reduce skin inflammation.¹³

Oily skin has excess oil production, which causes the skin to look greasy and prone to breakouts. Moisturizers that contain light gels or lotions and contain salicylic acid or benzoyl peroxide can help control excess oil production on the skin.¹⁴

Combination skin usually has oily areas such as the T-zone (forehead, nose, and chin) and dry areas on the cheeks and around the eyes. Light and oil-free moisturizers can be chosen to balance moisture all over the face. A moisturizer that is too heavy should be avoided because it can cause acne to form in the T-zone area.^{13,14}

Sensitive skin is a type of skin that is easily inflamed and irritated and experiences allergies to certain ingredients such as skin care products and cosmetics. Moisturizers for sensitive skin must be fragrance-free and free of chemicals that can irritate the skin. Moisturizers that contain natural ingredients such as chamomile or aloe vera can help soothe sensitive skin.

Mature skin tends to experience aging, wrinkles, and loss of elasticity due to decreased collagen production. The right moisturizer for mature skin should be able to provide humidity and help repair skin damage that occurs due to environmental factors and aging. Some ingredients that can be used for aging skin are peptides, collagen, hyaluronic acid, retinol, antioxidants, and natural oils. Peptides are useful to help repair damage to the skin and increase skin elasticity. Adding collagen to a moisturizer helps increase the skin's natural collagen production and reduces the appearance of wrinkles. Hyaluronic acid can help maintain skin moisture and improve skin texture. Retinol can repair skin damage and reduce the appearance of fine lines and wrinkles. Ingredients like vitamins C and E can help protect the skin from environmental damage and premature aging. Ingredients such as jojoba oil, almond oil, or argan oil can help keep the skin moist and provide nutrition to the skin.¹⁵

The active ingredient in the components of the moisturizer

Apart from choosing a moisturizer that suits your skin type, it is also important to choose a moisturizer that suits your skin problem. For example, if your skin is experiencing inflammation or irritation, choose a

moisturizer that contains ingredients that soothe the skin and reduce inflammation. Materials that moisturize skin, namely glycerin, hyaluronic acid, Aloe vera, ceramides, petrolatum, shea butter, and panthenol. Glycerin is the most common ingredient used in skin care products because it is able to draw moisture from the air and maintain the skin's natural moisture. Hyaluronic acid is a material that can attract and maintain skin moisture well. It also helps fill in and reduce the appearance of fine lines on the skin.

Aloe vera is known to have calming properties and moisturize the skin. This ingredient can help reduce inflammation and irritation of the skin. Ceramides are ingredients that are naturally present in the outer layer of the skin. This ingredient helps retain moisture and keeps the skin healthy and soft. Petrolatum is an ingredient used as a basic ingredient in skin care products, especially in products moisturizers. This material helps maintain skin moisture and prevent the loss of natural moisture in the skin.

Shea butter is a natural ingredient rich in healthy fats and vitamin E. These ingredients help moisturize and nourish the skin. Natural oils such as jojoba oil, almond oil, and coconut oil can help keep the skin moist and soften the skin. Panthenol is an ingredient used in skin care products to help hydrate and care for the skin. This ingredient also helps reduce inflammation and helps heal damaged skin.¹³⁻¹⁵

2. Conclusion

Moisturizer is an important step in your daily skincare routine that can help maintain healthy skin and protect the skin from harmful environmental damage.

3. References

1. Purnamawati S, Indrastuti N, Danarti R, Saefudin T. The role of moisturizers in addressing various kinds of dermatitis: a review. *Clin Med Res*. 2017; 15(3-4): 75-87.
2. Lodén M. Role of topical emollients and moisturizers in the treatment of dry skin barrier disorders. *Am J Clin Dermatol*. 2003; 4(11): 771-88.
3. Diana-Draeos Z. Therapeutic moisturizers. *Dermatol Clin*. 2000; 18(4): 597-607.
4. Lodén M. Effect of moisturizers on epidermal barrier function. *Clin Dermatol*. 2012; 30(3): 286-96.
5. Nolan K, Marmur E. Moisturizers: Reality and the skin benefits. *Dermatol Ther*. 2012; 25(3): 229-33.
6. Jemec GB, Na R. Hydration and plasticity following long-term use of a moisturizer: a single-blind study. *Acta Derm Venereol*. 2002; 182(5): 322-4.
7. Mawazi SM, Ann J, Othman N, Khan J, Alolayan SO, Altaghfani SS, et al. A review of moisturizers; history, preparation, characterization and applications. *Cosmetics*. 2022; 9(3): 61.
8. Xu S, Kwa M, Lohman ME, Evers-Meltzer R, Silverberg JI. Consumer preferences, product characteristics, and potentially allergenic ingredients in best-selling moisturizers. *JAMA Dermatol*. 2017; 153: 1099-105.
9. Ak M. Cosmetics in use: A pharmacological review. *J Dermatol Cosmetol*. 2019; 3: 50-67.
10. González-Minero FJ, Bravo-Díaz L. The use of plants in skin-care products, cosmetics and fragrances: Past and present. *Cosmetics*. 2018; 5: 50.
11. Mohiuddin AK. Skin care creams: Formulation and use. *Am J Dermatol Res Rev*. 2019; 2: 1-45.
12. Hamishehkar H, Same S, Adibkia K, Zarza K, Shokri J, Taghaee M, et al. A comparative histological study on the skin occlusion performance of a cream made of solid lipid nanoparticles and Vaseline. *Res Pharm Sci*. 2015; 10: 378-87.
13. Pons-Guiraud A. Dry skin in dermatology: A complex physiopathology. *J. Eur. Acad. Dermatol. Venereol*. 2007; 21: 1-4.
14. Kim H, Kim JT, Barua S, Yoo SY, Hong S-C, Bin LK, et al. Seeking better topical delivery technologies of moisturizing agents for enhanced skin moisturization. *Expert Opin Drug Deliv*. 2018; 15: 17-31.
15. Moncrieff G, Van Onselen J, Young T. The role of emollients in maintaining skin integrity. *Wounds*. 2015; 11: 68-74.