

REVIEW ON: NATURAL FACIAL SCRUB

Mohammad Ali^{*1}, Pooja V.², Shalini B. V.², Sahana L.² and Sindhu S.²

M. Pharm., Assistant Professor, Department of Pharmaceutics, Bharathi College of Pharmacy, Bharathinagara – 571422.

***Corresponding Author: Mohammad Ali**

M. Pharm., Assistant Professor, Department of Pharmaceutics, Bharathi College of Pharmacy, Bharathinagara - 571422.

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ABSTRACT

Facial scrubs are widely used in skincare routines to enhance skin texture and promote a radiant complexion. This review article examines the various types of facial scrubs, including physical, chemical and enzymatic formulations, highlighting their mechanisms of action, efficacy and safety profiles. We analyze key ingredients commonly found in these products, such as exfoliating agents (e.g. alpha-hydroxy acids, beta hydroxy acids and natural exfoliants) and their effects on different skin types. Additionally, we explore consumer preferences and trends in the market, emphasizing the growing demand for eco-friendly and sustainable formulations. The article aims to provide a comprehensive overview of facial scrubs, guiding consumers and professionals in making informed choices while addressing potential adverse effects and contraindications associated with over-exfoliation. Through this review, we aim to contribute to the understanding of effective exfoliation in skincare practices.

KEYWORDS

- Effective
- Gentle
- Hydrating
- Exfoliating
- Skin care
- Soothing
- Non irritating

INTRODUCTION TO COSMETICS

The word cosmetic is derived from Greek word - komestikos that means to adorn. From that time any materials used to beautification or promoting appearance is known as cosmetics. The word “cosmetic” actually stems from its use in Ancient Rome. They were typically produced by female slaves known as “cosmetae” which is where the word cosmetics steamed. Recently cosmetics have been necessity for men and women. They need for cosmetic is often associated with the assumption relating physical attractiveness. In general, cosmetics are ingredients used to adorn the face area such as cheeks, lips, even the eyes. Cosmetics are readily available in the form of scrub, lipsticks, perfumes, eye shadows nail polishes, hair sprays etc... Other cosmetics like face powder give glow to the skin after applying the base scrub. Then we have lipsticks which are applied by many women of all ages. There made from wax and Cocoa butter in the desired amount. Cosmetics like scrubs gels and colognes are used on a daily basis by both women and men. Scrub act as a cleanser for the face in many circumstances. More recently anti-aging scrubs have been manufactured which can retain younger looking

skin for many years. The best cleansing agents are cleansing scrub, soap and water. Cosmetic scrub serves as skin food for hard, dry and chapped skin. It mainly lubricates, softens and removes unwanted dirt from the skin.

Some of the key benefits of cosmetics include

- Hydration and moisturization
- Sun protection and prevention of skin damage
- Anti-aging and wrinkle reduction
- Acne treatment and prevention

CLASSIFICATION OF COSMETICS

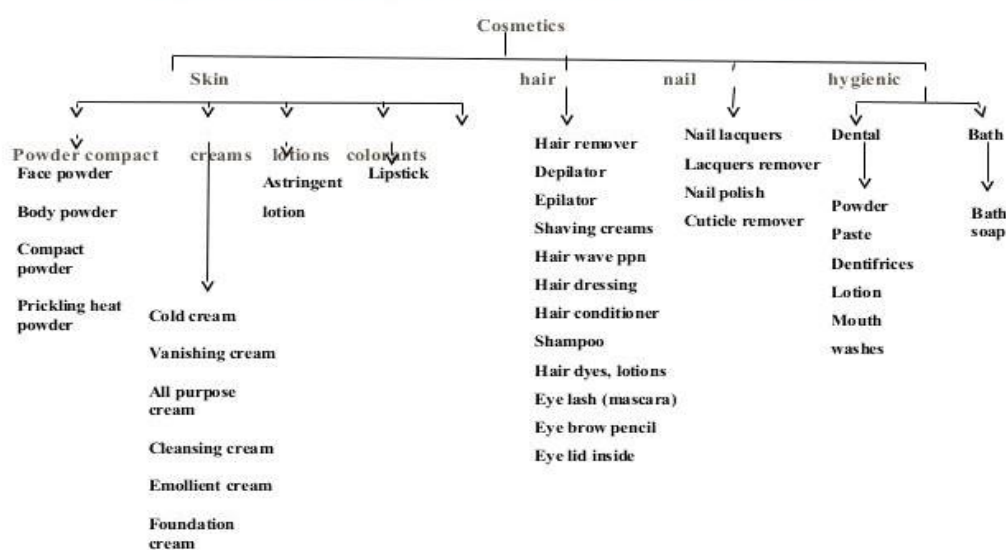


Figure 1: Classification of Cosmetics.

Topical Drug Delivery

Topical drug delivery can be defined as application of drug via skin to directly treat or cure the skin disorders. These topical drug delivery systems are generally used for local skin infection like fungal infection or where other route of administration is no suitable. It can penetrate deeper into skin and hence give better absorption. Topical application has no of advantages over the conventional dosage forms. In the formulation of topical dosage forms, attempts have been made to utilize drug carrier that ensure adequate localization or penetration of advantages over the conventional dosage forms. In general, they are deemed more effective less toxic than conventional formulations due to the bilayer composition and structure. In the formulation of topical dosage forms, attempts have been made to utilize drug

carrier that ensure adequate localization or penetration of the drug within enhance the local and minimize the systemic effects, or to ensure adequate Percutaneous absorption. Topical preparation prevents the GI-irritation, prevent the metabolism of drug in the liver so as increase the bioavailability of the drug. Topical preparations give its action directly at the site of action.

Physiology of Skin

The skin is one of the largest and most important organs in the body and comprises approximately 16% of the human body weight. As it covers the entire body.

The skin is continuous with the membrane lining the body orifices and in certain areas contains accessory structures such as glands, hairs and nails.

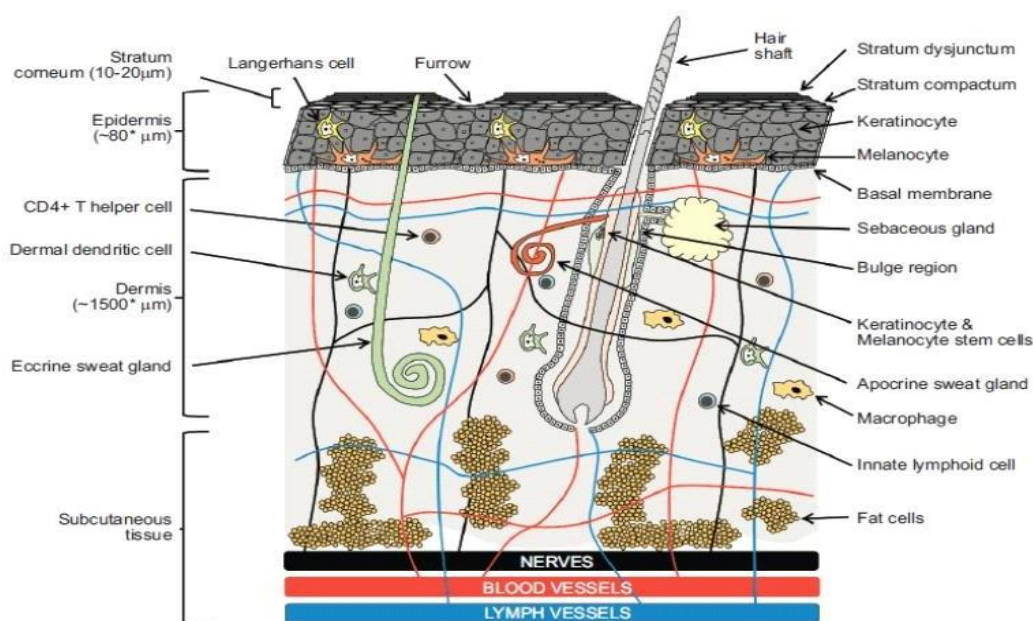


Figure 2: Anatomy of Skin.

- ❖ **Epidermis:** The epidermis is the most superficial layer of the skin and is composed of stratified keratinized squamous epithelium, which varies in thickness in different parts of the body. It is the thickest on the palms of the hands and soles of the feet. There are no blood vessels or nerve endings in the epidermis, but its deeper layers are bathed in the interstitial fluids from the dermis, which provides oxygen and nutrients, and drains away as lymph.
- ❖ **Dermis:** The dermis is tough and elastic. It is formed from connective tissue and the matrix contains collagen fibers interlaced with elastic fibers. Rupture of elastic fibers occurs when the skin is overstretched, resulting in permanent stretch marks that may be found in pregnancy and obesity. Collagen fibers are the main cells found in the dermis, bind water and give the skin its tensile strength, but as this ability declines, underlying its deepest layer there is areolar tissue and varying amount of adipose tissue.

With the age wrinkles develop. Fibroblasts, macrophages and mast cells are

- ❖ **Subcutaneous gland:** This consists of secretory epithelial cells derived from same tissue as the hair follicles. They secrete an oily substance, sebum into the hair follicles and are present in skin of the parts of the body except palms of the hands and the soles of the feet.

Functions of skin

- **Protection:** An anatomical barrier from pathogens and damage between the internal and external environment in bodily defense, Langerhans cells in the skin are parts of the adaptive immune system.
- **Protection:** An anatomical barrier from pathogens and damage between the internal and external environment in bodily defense, Langerhans cells in the skin are parts of the adaptive immune system.
- **Sensation:** Contains a variety of nerve endings that react to heat and cold, touch pressure, vibration, and tissue injury, see stomata sensory system and Hepatics.
- **Heat regulation:** The skin contains a blood supply far greater than its requirements which allows precise control of energy loss by radiations, convection and conduction. Dilated blood vessels increase perfusion and heat loss, while constricted vessels greatly reduced cutaneous blood flow and conserve heat.
- **Control of evaporation:** The skin provides a relatively dry and semipermeable barrier to fluid loss. Loss of this function contributes to the massive fluid loss in burns.

Mechanism

Upon application of the topical drug over the skin. It will diffuse to the outer layer of the skin, known as stratum corneum. There are three routes possible for the drugs to cross the skin. The first route is through the appendages. It is known as the "first cut" where the drug molecules

will be partitioned into the sweat glands to bypass the stratum corneum barrier. If the drug molecules are not transported via the "first cut", it usually remains in the stratum corneum bilayer lipids, where the drug molecules transport through either the trans cellular routes or paracellular routes into the deeper area of the skin like subcutaneous layer. For the paracellular routes, it means that the solutes transport via the junction between the cells. When the topical drug molecules transport via the paracellular routes, it needs to travel across the stratum corneum, which is highly fat region, but between the cells. On the other hand, the topical drug molecules may travel through the transcellular route. This route allows molecules to be transported via cell. Transcellular route transports the drug molecules into the bilayered lipid cells found in stratum corneum. Inside of the bilayered lipids in the stratum corneum is a water – soluble environments, and the drug molecules will diffuse through this bilayered lipids into deeper area of the skin. During the transportation of the topical drug molecules, it can bind to the keratin that exists as one of the skin components in the stratum corneum.

Advantages

- Avoid of first past metabolism.
- Convenient and easy to apply.
- Avoid the risk.
- The avoid the function of interne and intrapaten.
- Achievement of efficacy with the lower total daily dosage of drug by continuous drug input.
- Avoid fluctuation of drug level inter and interpatient variation.

Disadvantage

- Skin irritation of contact dermatitis may occur due to the drug and excipient.
- Poor permeability of some drugs through the skin.
- Can be used only for drugs which requires very small plasma concentration for action.
- Enzyme in epidermis may denature the drugs.

Facial Scrub

A facial scrub is a skin care product used to exfoliate the skin which removes dead skin cells from the surface of the skin and reduces tanning of skin. Generally, a skin is of three types: dry skin, oily skin and sensitive skin. The people with dry skin must use facial scrub which contains hydrating ingredients and moisturizer is must for them. After using scrub, general scrubs should be used for sensitive skin. For those who are having oily skin, it is essential to get a scrub that exfoliate deeply to prevent pores from clogging and also to balance the skin's oily production. We can use it face scrub twice or thrice a week followed by light weight face oil. Regardless of skin type, always we should select a scrub which is not hurt full but gentle to the skin. The harsh ones can do more harm than good to the skin. The oily skin gel-based scrub is preferred. For dry skin, cream-based scrub is use full. For sensitive skin, scrubs with super soft granules are having good results.

Ideal Characteristics of Facial Scrub

- Gentle exfoliation
- Suitable for your skin type
- pH balanced
- toxic free
- abrasive (mild)
- Having the ability remove skin dead cells
- Non -comedogenic
- Hypo-allergic
- Non sticky surface
- Fragrance –free or mild scent
- Moisturizing properties
- Easy to use

Features of Scrub

- In a word, lipids are the skin natural fats.
- They are important components of the skin protective barrier, which holds moisture, protects it's from harm, and keeps dirt and contaminants out
- Keratinocytes derived epidermal lipids serve a critical part in the skin barrier functions

This lipids act as barrier

- to the passage of water and electrolytes, as well as to the invasion of micro organism

- Cholesterol, fatty acid and ceramides are all synthesized extremely actively in the epidermis.

ADVANTAGES OF FACIAL SCRUB

- Deep cleansing
- Exfoliate the dead skin
- Improve the skin texture
- Unclogs pores
- Brightens the skin
- Hydrates skin
- Improves skin tone
- Boosts skin circulation
- Gives health glow
- Reduces the appearance of fine lines.

DISADVANTAGES OF FACIAL SCRUB

- Irritation
- Dryness
- Over exfoliation
- Allergic reaction
- Not suitable for all skin type
- Harsh on skin
- Cause the skin imbalance



Figure 3: Different Marketed Facial Scrubs.

Types of facial scrub

There are several types of facial scrubs, each with its own unique benefits and ingredients. Here are some common types of facial scrubs:

1. Physical Scrubs: Contain small particles like sugar, salt, or coffee grounds that help remove dead skin cells through physical exfoliation.
2. Chemical Scrubs: Use alpha-hydroxy acids (AHAs) or beta-hydroxy acids (BHAs) to dissolve dead skin cells and promote cell turnover.
3. Enzyme Scrubs: Contain enzymes like papain or bromelain that break down dead skin cells and help unclog pores.
4. Micro-exfoliating Scrubs: Use tiny, round particles like jojoba beads or polyethylene beads for gentle exfoliation.
5. Natural Scrubs: Made with natural ingredients like honey, oatmeal, or green tea, these scrubs are gentle and suitable for sensitive skin.
6. Clay-based Scrubs: Use clay minerals like kaolin or bentonite to detoxify and purify the skin.
7. Exfoliating Cleanser Scrubs: Combine a gentle cleanser with exfoliating particles for a 2-in-1 product.
8. Peeling Scrubs: Contain a higher concentration of AHAs or BHAs for a more intense exfoliating experience.
9. Sensitive Skin Scrubs: Gentle, fragrance-free, and hypoallergenic scrubs designed for sensitive skin.
10. Customizable Scrubs: Allow you to mix and match different ingredients to create a personalized scrub.

Remember, choose a scrub that suits your skin type and concerns, and always follow a gentle scrubbing routine!

CONCLUSION

This review article explores the formulation, ingredients, and benefits of facial scrubs, emphasizing their role in skincare routines. It discusses various natural exfoliants, such as sugar, salt, and botanical powders, alongside moisturizing agents like oils and glycerin. The review highlights the significance of balancing exfoliation with hydration to maintain skin health. Additionally, it addresses the effectiveness of chemical exfoliants, such as alpha-hydroxy acids, in comparison to physical scrubs. By examining safety, efficacy, and consumer preferences, the article aims to provide a comprehensive overview of facial scrubs and their ultimate impact on skin vitality and appearance.

Furthermore, consumer awareness and preferences are increasingly leaning toward natural and sustainable ingredients, prompting manufacturers to innovate in their formulations. This shift emphasizes the need for transparency in labeling and efficacy studies to build trust among users. Additionally, understanding individual skin types and conditions can guide the selection of the most appropriate scrub, maximizing benefits while minimizing potential irritation. As the skincare industry continues to evolve, integrating

advanced technologies and research will enhance the effectiveness and safety of facial scrubs, ultimately leading to healthier skin outcomes for a broader audience. Continued exploration in this field will ensure that facial scrubs remain a relevant and beneficial component of modern skincare practices.

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