

Green Glow: A Comprehensive Look at Herbal Skin And Hair Care

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Abstract: This review article emphasizes that currently, people prefer natural food, herbal hair cosmetics, herbal drug formulations for a healthy life. This involves herbal hair care. Cosmetics which include herbal hair oil, herbal hair shampoo, herbal hair conditioner, and herbal hair dye. The different types of herbal hair oil available in the market are amla hair oil, coconut hair oil, barangay hair oil, etc. In this review, the composition of herbal hair oil involves aloe vera pulp, Tulsi, hibiscus, Shukokai, coconut oil, and almond oil. This review article also involves important information about herbal hair shampoo which includes the properties, types, functions, and advantages of herbal shampoo. This review emphasizes the importance of herbal hair conditioners and herbal hair dye. Herbal plants like henna, Shukokai, and neem were studied for their anti-dandruff treatment and also studied the anti-oxidant properties of some vitamins. The results obtained from the study proved that herbal plants are safe and effective. Herbs are rich in vitamins, they have anti-aging, revitalizing, and rejuvenating agents.

Keywords: Herbal skin care, hair care, shampoo, vitamins, jojoba oil

I. INTRODUCTION

Herbal cosmetics otherwise known as nature cosmetics. Herbal skin care products are most safe and protect the skin from the external environment. It provides the appearance to the skin. [1] Cosmetics are substances that are applied to apply on the human body parts like the face, and hands to soothe the skin, promoting beauty, and enhancing the without any changes in the body functions and body structures. [2] Nowadays use of herbal cosmetics by people increasing day by day and great need for herbal cosmetics and skin care products day to day-to-day life. Dermatologist proved herbal cosmetics are safe to use due to lack of side effects and more therapeutic activity. [3] Types of skin cosmetics available in markets such as sunscreen, anti-wrinkle, anti-aging, anti-acne, etc. are formulated with natural additives. [4] Creams, perfumes, lotions, etc are the cosmetics used to protect the skin and beautify the skin. This takes a look geared toward reviewing the significance of herbal hair oil for the curing of not unusual hair troubles such as baldness, alopecia, hair fall, Argentine hair, blankness, and maximum common dandruff.

Scientific name	Common name	Parts used	Uses
<i>Acacia concinna</i>	Shikakai	Pods	Shampoo, Soap
<i>Acorus calamus</i>	Sweet flag	Rhizome	Aromatic, Dusting powders, Skin lotions
<i>Allium sativum</i>	Garlic	Bulbs	Promote skin healing
<i>Avena sativa</i>	Oat	Fruit	Skin tonic/ Moisturizer
<i>Azadirachta indica</i>	Neem	Leaves	Tooth pastes, Soaps, Shampoo
<i>Calendula officinalis</i>	Marigold	Flowers	Promote skin care
<i>Centella asiatica</i>	Brahmi	Plant	Wound healing, reduce stretch mark
<i>Centella asiatica</i>	Gotu kola	Plant	Wound healing
<i>Cichorium intybus</i>	Chicory	Seed	Relieves sore eyes, clears skin of blemishes
<i>Curcuma longa</i>	Turmeric	Rhizome	Skin cream, skin lotion Antibacterial
<i>Mesua ferrea</i>	Cobras saffron	Flower	Astringent
<i>Panax ginseng</i>	Ginseng	Root	Stimulant blood flow to skin
<i>Zizyphus jujube</i>	Zizyphus	Fruit	Skin care
<i>Zingiber zerumbet</i>	Zamabad	Rhizome	Skin care

Table: List of Plants with Cosmetic Application for Skin Care

The requirements for the basic skin care:

- Cleansing agent: It removes the dirt that chokes the pores on the skin and dead cells. Examples of cleansers include vegetable oils like sesame oil and palm oil. [7]
- Toners: It helps to tighten the skin and prevent it from being exposed to many of the toxins that are present in the atmosphere. Examples of toners include hazel, geranium, sage, lemon, ivy burdock, and essential oils. [8]

- Moisturizing: It helps the skin to become soft and supple..[9]Theyshow a healthy glow and are less prone to aging..[10] Examples of herbal moisturizers include vegetable glycerine, sorbitol, rose water, jojoba oil, aloe vera, and iris..[11]

Anatomy of Skin:

The largest organ in the human body is the skin. For the adult human, the average surface area of the skin is between 1.5 – 2.0 square meters. The thickness of the skin varies over all parts of the body and between men (1.3 mm) and women (1.26 mm). The skin is composed of three primary layers, the epidermis, the dermis, and the hypodermis. The pH of the varies from 4.5 to 6.

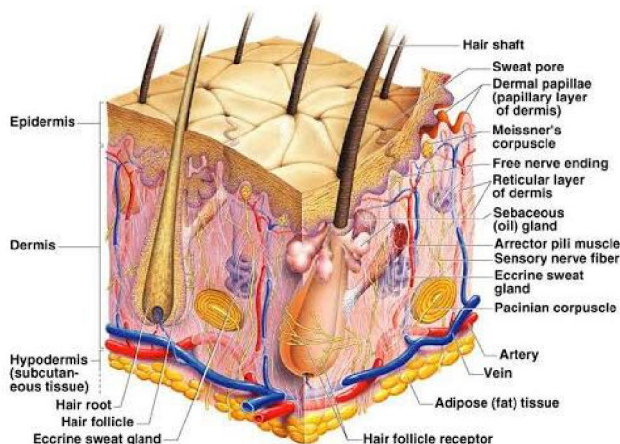


Fig: skin [12] anatomy

Epidermis: It is the outermost layer of the skin. The epidermis does not contain blood vessels and by diffusion from the dermis, the epidermis gets nourished. The main type of cell that makes up the epidermis are keratinocytes, melanocytes, Langerhans cells, and marcel cells. The epidermis is divided into 5 sublayers or strata.

- 1-stratum corneum
- 2-stratum lucidum
- 3-stratum granulosum
- 4-stratum spinosum

Dermis: It is the layer of skin beneath the epidermis that consists of epithelial tissue and cushions the body from stress and strain. The dermis is tightly connected to the epidermis by a basement membrane. It contains hair follicles, sweat glands, sebaceous glands, and apocrine.

Hypodermis: It is not part of the skin and lies below the dermis. It consists of loose connective tissue, adipose tissue, and elastin. The cell types that hypodermis consists of are fibroblasts, macrophages, and adipocytes. Fat serves as padding and insulation for the body.

Skin type	Characteristics	Suitable skin care
Normal skin	Has even tone, soft, smooth, no visible pores, no greasy patches or flaky areas. Has clear, fine, supple and smooth surface which is neither oily or dry.	Herbal- Pomegranate leaves juice, gingili oil. Essential oils- Chamomile, Lavender, lemon.
Dry skin	Low level of sebum and prone to sensitivity. Has parched look, feels tight. Chapping sign cracking of dehydrated and extremely dry skin.	Herbal- Calendula, Olive oil, Aloe vera. Essential oils- Fennel, Rose oil, Almond oil, Sandal wood, Avacado.
Oily skin	Shiny, thick and dull complexion. Coarse pores and pimples and other embarrassing blemishes. Prone to black heads.	Herbal- Rose buds, Oat straw, Thyme, Chamomile, Aloe vera, Lemon grass. Essential oils- Juniper, Lemon, Lavender, sage.
Combination skin	Some parts of your face are dry or flaky, while the centre part of face, nose, chin and forehead is oily	Herbals- Menthol, Turmeric, Sweet flag, Aloe vera. Essential oils- Citrous oil, Jasmine, Sandal wood oil.

Table: Types of skin [13]



Fig: Herbs for skin products [14]

Herbal Medicines for Skin Care Treatments:

1] Dry skin treatment:

A] Aloe Vera: Aloe Vera plant is a native of Southern Africa. It has fleshy spiny-toothed leaves with red or yellow flowers. It is an active ingredient in many cosmetics because it acts as a moisturizer and softens skin. By cutting the Aloe Vera leaves we can easily extract the soothing gel. It contains amino acids like leucine, isoleucine, and saponin glycosides which provide cleansing properties, vitamins A, C, E, B, choline, B12, and folic acid, and also provide antioxidant activity.

B] Coconut oil: The biological source of coconut oil is the dried fruit or seed of the coconut palm tree *Cocosnucifera*, family *Aceraceae*. Extra virgin coconut oil is excellent for skin moisturizers. When we used coconut oil for 14 hrs to prevent protein loss from the wet combing of hair.

C] Jojoba oil: It is extracted from the seeds of the desert shrub *Simmondsiachinenes* is belongs to the family, *Mimosaceae*. Jojoba oil is a long-chain mixture of linear liquid wax esters. It is easily refined to remove any Odor and the colour is stable oxidatively. In cosmetics, it is used as a moisturizer and carrier oil for exotic fragrances..[15]



Fig: jojoba oil

2] Anti-aging Treatment:

A] Carrot: It is obtained from the plant *Daucuscarotabelongs* to the family *Pinaceae*. Carrot seed oil is used for anti-aging, revitalizing, and rejuvenating and helps to reduce wrinkles. It promotes the formation of new cells. It acts as a natural toner.

B] Ginkgo: It is obtained from the ginkgotree; *Ginkgo bilobabelongs* to the family *Ginkgoaceae*. It is the best circulatory tonic for strengthening the tiny little capillaries of all the organs, especially to brain. Because the capillaries become more flexible, as a result, a greater number of oxygens is delivered to the brain and eye to protect from diseases like macular degeneration.



Fig: ginkgo tree [16]

C] Rhodiolarosea: *Lignum rhodium* belongs to the family Crassulaceae. It is commonly known as golden root, rose root, arctic root, Aaron's root, or king's crown. It is traditional folk medicine used to enhance physical endurance, work productivity, longevity, and resistance to high altitude sickness. It is also used to treat fatigue, depression, anaemia, impotence, gastrointestinal ailments, infections, and nervous disorders.[16].



Fig; rhodiolarosea [16]

3] Skin Protection:

20 times stronger than vitamin E.

A] Calendula: *Calendula officinalis*, family Asteraceae is commonly known as the Marigold plant. In cosmetics, it is used in suspension or tincture to treat acne, reduce inflammation, control bleeding, and soothe irritated tissue. Calendula cream or ointment is effective in treating radiation dermatitis.[16].



Fig: calendula

B] Green Tea: Green tea is a Tea extracted from the leaves of *Camellia sinensis* belong to the family, Thecae. It protects the skin from direct damage to the cell and moderate inflammation. The main active ingredient in green tea is catechin, it has antioxidant power which 20 times stronger than vitamin E.

The benefits of Herbs May include the following:

- 1] Improve physical and mental well-being
- 2] Detoxification

3]It aids in sleeping and digestion

4]Enhance energy and reduce fatigue.[17]

Anatomy of hair: Hair is one of the traits functions of mammals and has various characteristics such as safety in opposition to external elements i.e. warm temperature, cold, and many others. Hair is one of the essential components of the frame considered to be shielding appendages at the frame and accessory form of the integument alongsidethe sebaceous gland and sweat gland. The fundamental part of the hair is the bulb, root, and shaft. Hair fall, dandruff, lice, cut up, and grey hair are a number of the extensively identified problems related to hair. A chunk of hair appears simple but it's miles one of the maximum complex structures in the frame.[18]

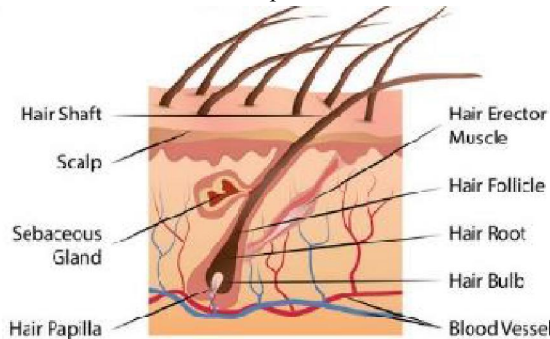


FIG: anatomy: Anatomy of hair structure [18]

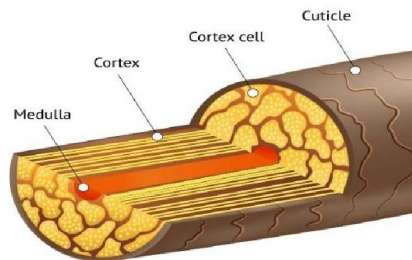


FIG: structure of hair [18]

STRUCTURE OF HAIR

a) Cuticle:

The cuticle of the hair is certainly made with a substance known as sebum, which protects the hair from drying out. So, whilst the cortex of the hair penetrates, it gets rid of the shielding sebum. The cuticle is open and herbal and has to be closed to return to a wholesome state. The cuticle made of lapping cells like fish scales or roof penstocks, is the protective subcaste of the hair that fast personal. A healthful cuticle is clean and flat. It includes lustre to the hair and protects the inner layers from harm. It additionally minimizes the motion of humidity in and out of the beginning cortex, keeping the hair's humidity stable and inflexible, still, chemical treatments and exposure to the sediments elevate the cuticle and disappoint this stability, making hair dry and brittle.[18]

b) Cortex: -

The cortex makes up the majority and shade of colour of the hair. It includes long seashores of keratin held together with the aid of disulfide and hydrogen bonds. Cortical fitness is dependent on the integrity of the cuticle that protects the cortex. The cortex is the biggest part of the hair, counting for more or less seventy-five of its weight. The cortex, gifted within the middle of each hair fibre, is composed of long, tightly packed keratin spindles stabilized via disulfide bonds. These keratin spindles are organized crescively beginning from the bottom shape, the keratin protein itself, to the largest and final structure, the cortex itself. The cortex offers energy to the hair and also homes melanin grains. These are the shade packets accountable for the colour of the cortex and additionally answerable for giving the hair its shape and texture, acting in it being either instantly, crimpy, or coiled. [19]

c) Medulla:

The medulla is the inner subcaste of the hair shaft. This nearly unnoticeable subcaste is the softest, maximum fragile, and serves as the gist or core of the hair. Hair increases cycle.

PROBLEMS RELATED TO HAIR:

- Dandruff
- Dry hair
- Split ends

- Oily hair
- Frizzy hair
- Limp hair
- Hair loss
- Heat damage
- Colour damage
- Grey hair [20]

HERBAL HAIR CARE COSMETICS INCLUDE:

1. HERBAL HAIR OIL
2. HERBAL HAIR SHAMPOO
3. HERBAL HAIR CONDITIONERS
4. HERBAL HAIR DYES [21]

1. HERBAL HAIR OIL:

Hair oils are hair care products. Hair care merchandise is defined as the formulations that might be used for the reason of cleaning, editing the hair texture, providing nourishment to the hair, and retaining the healthful appearance of hair. Hair oils are hair care components implemented in the hair for the treatment of hair disorders which include baldness, greying of hair, hair fall, and dry hair, and also allows in providing nourishment to hair.[22] Herbal cosmetics are excessively in demand because of an increasing hobby of mankind closer to them additionally natural cosmetics are more effective with negligible facet consequences and components are without problems to be had. Natural hair oil is a critical part of natural cosmetics. [23] Herbal hair oil is greatly desired and used in lots of ailments of hair. They now not most effective sell hair boom however additionally offer vital moisture to the scalp rendering in stunning hair.[24] Herbal oil which incorporates herbal pills is referred to as hair tonic.[25] Natural hair oil gives some vital nutrients which can be important to keep the normal function of the sebaceous gland and promote the natural boom of hair. Those are some of the maxima properly identified products for the treatment of hair.[26]. Using hair oil is growing every day in step with the development in the preferred dwelling of human beings to present herbal Flavors and colourings to hair oil herbal essences and perfumes.

Different types of herbal hair oil available in the market: -

1. Amla hair oil
2. Coconut hair oil
3. Baringa hair oil
4. Jasmine hair oil
5. Brahmi hair oil
6. Cantharidin hair oil
7. Onion hair oil [27]

2. HERBAL HAIR SHAMPOO

Shampoos are normally made up of 10–30 elements, whilst others are as low as four.

The ingredients are divided into four categories:

- (1) cleaning sellers
- (2) components that contribute to the product’s stability and comfort;
- (3) Conditioning marketers that impart softness and gloss, reduce fly away and improve Disentangling capacity.
- (4) special care elements that focus on specific problems like Dandruff and greasy hair Shampoos no longer only clean the scalp, however additionally they guard the hair shaft from damage.[28]] energetic chemicals delivered to shampoo formulas also can deal with theramifications of Scalp ailments. Regardless of the ailment or circumstance (dermatitis,

seborrhea, alopecia, Psoriasis), it's miles leading to maintaining the hair strands visually presentable using retaining Their softness, combability, and lustre at the same time as treating the scalp.[29]

Ideal properties of shampoo: -

- It should correctly get rid of dirt or soil, excessive sebum or different fatty substances, and loose corneal cells from the hair.
- It ought to produce a very good amount of froth to fulfil the mental requirements of the consumer.
- It ought to be easily eliminated on rinsing with water.
- It should make the hair non-dry, gentle, and lustrous with precise manageability and minimal flyaway.
- It must impart a pleasing perfume to the hair.

TYPES OF SHAMPOOS

Shampoos are of the following types:

- Powder Shampoo
- Liquid Shampoo
- Conditioning Shampoo
- Anti-dandruff Shampoo
- Traditional shampoo
- Herbal shampoo
- Solid shampoo [30]

3. HERBAL HAIR CONDITIONER:

A hair conditioner is a hair care product that is carried out after shampooing as a way to condition the hair. Conditioning allows defend your hair and restore it. Conditioner means a coaching used to improve the situation of hair. The product is beneficial to all forms of hair. It works by restoring moisture and smoothing the cuticles of the hair follicles. Hair conditioners comprising of powerful antioxidants can reduce UV damage to the hair including hair colour adjustments and protein harm. 3 varieties of Hair Conditioners were made after which evaluated for their properties. [31]

HOW TO USE A HAIR CONDITIONER:

There are a total of five steps in using a conditioner: -



Fig how to use hair conditioner [32]

4. HAIR DYES:

Hair colouring or dying, practices of changing the hair shade. The primary purpose for this is cosmetics to recover white and slate hair, to alternate the seemed as farther stylish or applicable, the set herbal colour includes all the probity of herbal ingredients. The precise blend of herbals additionally acts as a hair increase enhancer and hair nourishment nourishes.

PLANT-DERIVED DYES

- Catechu or Cutch tree (brown)
- Gamboge tree resin (dark mustard yellow)
- Chestnut hulls (peach to brown)
- Himalayan rhubarb root (bronze, yellow)
- Indigofera leaves (blue)
- Kamala seed pods (yellow)
- Madder root (red, pink, orange)
- Myrobalan fruit (yellow, green, black, source of tannin) [33]



Fig: herbal hair dyes

Herbal hair products:



Fig Herbal shampoo, hair oil, hair conditioner

LIST OF HERBAL INGREDIENTS: -

SR No:	INGREDIENTS	PARTS	USE
1	Neem Powder	Leaves	Antibacterial Agent
2	Hibiscus Flower Powder	Flower	Conditioning Agent
3	Aloe Vera Powder	Leaves	Moisturizing Agent
4	Shukokai Powder	Pods	Detergent
5	Amla Powder	Fruits	Anti-Dandruff Agent
6	Soap Nut	Nut	Foaming Agent

Table no.2: list: List of herbal ingredients

II. CONCLUSION

Herbal cosmetics are prepared using herbal ingredients to treat different ailments promote a healthy life and beautify the skin without damaging the skin's functions and structure. There are numerous herbs available naturally having different uses in cosmetic preparations for skincare. The current review highlights the importance of herbal cosmetics, the herbs used in them, and their advantages over their synthetic counterparts. Herbal cosmetics usage for the skin has

been increased in personal care systems and more demand for natural cosmetics. Based on the review here we concluded that herbal cosmetics are very safe and do not produce any toxic and adverse reactions compared to marketed cosmetics products. Today's generation both men and women, suffers normal hair problems as there is a more polluted environment which leads to hair disorders such as pigmentation problems (Fading), dandruff, and falling of hair (Shedding). The use of bioactive ingredients from the herbal formulation stimulates the biology of hair for natural growth that provides healthy hair. Generally, the herbal formulation provides many vitamins, antioxidants, various oils, proteins, terpenoids, and many essential oils. This article describes the advantages and application of herbs as herbal cosmetics for natural hair growth.

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