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HERBS USED IN POLYHERBAL HAIR OIL

By

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Name of the Guide

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Abstract

Hair Plays a very important role in the personality of humans and for their cure by using cosmetic products. Herbal hair oil is always safer than allopathy hair oil, I take people survey on which herbal oil is mostly prefer like allopathy or herbal, most of the people use herbal hair oil with no any side effect or complications. Hair Herbal formulation always have activity and comparatively lesser or no side effect with synthetic. Hair formulation of Emblica officinalis (Fruit), Psidium guajava (Fruit), Glycyrrhiza glabra (sticks), Ginger (Root), Bacopamonnieri (Leaves), Trigonella foenum graecum (seeds), Azadirachta Indica (Leaves) in different Concentration used in Formula of Poly herbal hair oil.

Keywords

Hair Formulation, Herbal oil, Healthy Hair.

Advantages of Herbal Hair Oil

- I. Improves hair luster
- II. Nourishes hair shafts
- III. Treats dandruff
- IV. Restore hair growth
- V. Make hair thick and stronger
- VI. Helpful in premature greying

Introduction

Hair plays a vital role in human body and it is considered to be protective appendages on the body and accessory structure of the integument along with sebaceous gland, sweat glands and nails [1]. The main problems associated with hair such as pigmentation problems (Fading), dandruff and falling of hair (Shedding) [2]. Each hair grows in three cyclic phases such as anagen (growth), catagen (involution) and telogen (rest). The anagen phase can be as short as 2-6 years. In the catagen phase, the growth activity increase and hair move to the next phase, catagen phase is between 2-3 weeks. The telogen phase is a state at which the hairs move into resting state as 2-3 months. In general, 50 to 100 pairs are known to be shed everyday and an increase of more than 100 constitutes a state of hair loss or alopecia. Amla is rich source of vitamin C and contains appreciable amount of pectin rich in minerals matters like phosphorous, iron, calcium [3]. Bacopa monnieri acts on brain so that it is called as nervine tonic. Hibiscus consists of calcium, Phosphorous, iron, vitamin B1, riboflavin, niacin, and vitamin C, used to stimulate thicker hair growth and prevents premature graying of hair. Bramhi contains alkaloids which enhance protein kinase activity. Methi contains high protein fodder which supply required protein nutrition to hair. Trigonella foenum graecum is used as high protein fodder and for its cleansing and softening activity and it also promotes scalp health and prevents hair falling[4]. Leaves of Murrays koenigii is used for its antiseptic properties[5]. Cocos nucifera is used to promotes the growth hair.

Objective

- I. Herbal hair oil not only moisturized scalp but also reverse dry scalp and dry hair conditions.
- II. It provides numerous essential nutrients required to maintain normal function of sebaceous glands and promotes natural hair growth.
- III. The Hair oils are used for dressing and nourishing the hairs and grace to appearance of hairs.

Sr.No	Botanical Name	Family	Plant Part used	Chemical Constituents	Uses
1.	<i>Cocos nucifera</i>	Arecaceae	Oil (Based oil)	Alcohols, Ketones.	Moisturizer Promoting hair growth, provides a natural shine.
2.	<i>Hibiscus rosasinensis</i>	Malvaceae	Flower	Beta- sitosterol, stigmsterol, taraxeryl acetate.	Prevent Dandruff, hair loss.

3.	<i>Azadirachta indica</i>	Meliaceae	Leaves	Nimbin, nimbinene.	Antidandruff promotes hair growth.
4.	<i>Emblica officinalis</i>	Euphorbiaceae	Fruit	Aspartic acid, glutamic acid, Alanine.	Anti-oxidant strengthens the scalp and hair.
5.	<i>Trigonella Foenum graceum</i>	Mentulu	Seeds	Saponins, coumarin, nicotinic acid.	Moisturizes hair & replenishes hair growth.
6.	<i>Zingiber officinale</i>	Zingiberaceae	Root	Gingerol, shagol, zingiberene.	Stimulate hair growth.
7.	<i>Bacopa Monneri</i>	Scrophuariaceae	Leaves	Bacosides with jujubogenin	Prevents split ends, Prevents grying.
8.	<i>Psidium gujava</i>	Myrtaceae	Leaves	Galloctechol, hyperoside, capaene.	Boost collagen activity, fight free radicals, prevents hair damage, make hair soft & shiny.
9.	<i>Electarria cardamomum</i>	Zingiberaceae	Fruit	Phyllantine, phyllembein, glutamic acid.	Naurich hair scalp and hair follicles, enhance hair growth.
10.	<i>Murraya Koenigii</i>	Rutaceae	Leaves	Elemene, cadinenes, beta- pinene. Girinimbine.	Help to promote hair growth, skin renewal, boost the health of scalp.

11.	<i>Ocimum tenuiflorum</i>	Mints	Leaves	Eugenol, Rosmarinic acid, estragole.	Maintain moisture on scalp, reduces itchiness and dryness.
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Plant Profile 1 :



Botanical name	Cocos nucifera
Kingdom	Plantae
Subkingdom	Tracheobionta
Super division	Spermatophyta
Division	Magnoliophyta
Class	Liliopsida
Subclass	Arecidae
Order	Arecales
Family	Arecaceae
Genus	Cocos L.
Species	Cocos nucifera

Plant description:

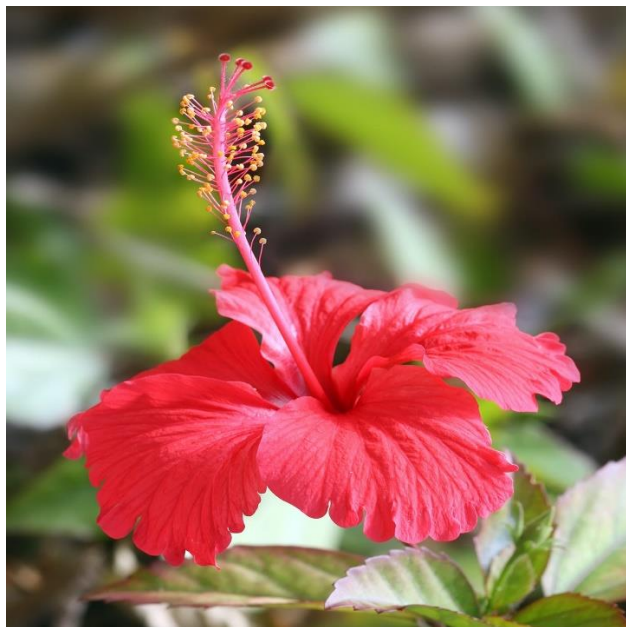
Cocos nucifera trees have a smooth, columnar, light grey-brown trunk, with a mean diameter of 30-40 cm at breast height, and topped with a terminal crown of leaves. Tall selections may attain a height of 24-30 m. dwarf selections also exist. Trunk slender and slightly swollen at the base, usually erect but may be leaning or curved.

Chemical constituents :

The chemical constituents of *cocos nucifera* have some biological effects such as antihelmintic, anti-inflammatory, antinociceptive, antioxidant, antifungal, antimicrobial and antitumor activities [16].

Uses :

The oil and milk derived from it are commonly used in cooking and frying. Coconut oil is also widely used in soaps and cosmetics. The husk and leaves can be used as material to make a variety of products for furnishing and decorating. Coconuts have been used in traditional medicine around the world to treat numerous ailments, ranging from sore throat, colds, and earaches to tuberculosis, tumors and ulcers. Recent medicinal studies have found that coconut can have antibacterial, antifungal, antihelmintic and antiviral properties, among other health benefits.

Plant Profile 2:

Botanical name	Hibiscus rosasinensis
kingdom	Plantae-Plants
Sub kingdom	Tracheobionta- vascular plants
Super division	Spermatophyta- seed plants
Division	Magnoliophyta- Flowering plants
Class	Magnoliopsida- Dicotyledons
Sub Class	Dilleniidae
Order	Malvales
Family	Malvaceae- Mallow Family
Genus	Hibiscus L-Rosemallow
Species	Hibiscus rosa-sinensis L

Plant description :

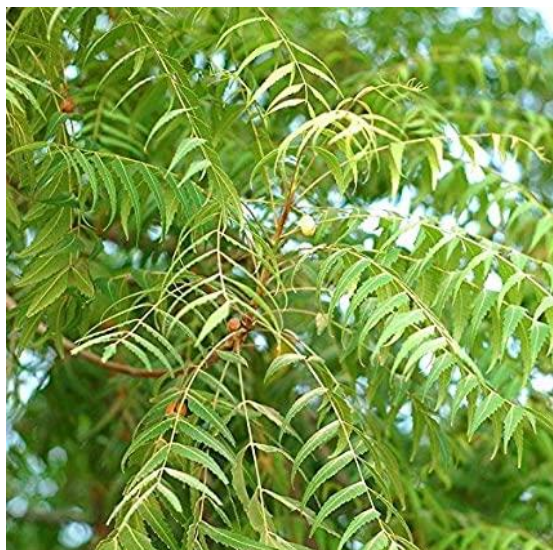
Hibiscus rosa-sinensis a bushy, evergreen shrub or small tree growing 2.5–5m (8–16ft) tall and 1.5–3m (5–10ft) wide, with glossy leaves and solitary, brilliant red flowers in summer and autumn. The 5-petaled flowers are 10cm (4in) in diameter, with prominent orange-tipped [9].

Chemical constituents :

Leaves and stems contain β -sitosterol, stigmasterol, taraxeryl acetate and three cyclopropane compounds and their derivatives. Flowers contain cyanidin diglucoside, flavonoids and vitamins, thiamine, riboflavin, niacin, and ascorbic acid. Quercetin-3-diglucoside, 3,7-diglucoside, cyanidin-3,5-iglucoside and cyanidin-3-sophoroside-5-glucoside have been isolated from deep yellow flowers; all above compounds and kaempferol-3-Di xylosylglucoside have been isolated from ivory white flowers.

Uses :

The flowers of Hibiscus rosa-sinensis are edible and are used in salads in the Pacific Islands. The flower is additionally used in hair care as a preparation. It is also used to shine shoes in certain parts of India. It can also be used as a pH indicator. When used, the flower turns acidic solutions to a dark pink or magenta color and basic solutions to green.

Plant Profile 3:

Botanical name	Azadirachta indica
Kingdom	Plantae
Subkingdom	Tracheobionta
Super division	Spermatophyta
Division	Magnoliophyta
Class	Magnoliopsida
Subclass	Rosidae
Order	Sapindales
Family	Meliaceae
Genus	Azadirachta A Juss.
Species	Azadirachta Indica A Juss

Plant description :

Height: 15–20 m (about 50–65 feet, Flowers: Very sweet scented, especially at night, appear in March-May; white and fragrant; arranged auxiliary, normally in more-or-less individual. Fruit: Ripes in July and August, evergreen, the old foliage persisting till after the young leaves have expanded; branches wide spread. Leaves: The opposite, pinnate leaves are 20–40 cm (8 to 16 in.) long, with 20 to 31 medium to dark green leaflets about 3–8 cm (1 to 3 in.) long; terminal leaflet is often missing; petioles short.

Chemical constituents :

Main chemical components are nimbin, nimbinene, azadirachtin, azadirachtol, azadirachnol, desacetynimbinene, nimbandiol, nimbolide, quercetin, beta-sitosterol, n-hexacosanol, nimbiol and nimocin[15].

Uses :

Neem leaves are dried and burnt in the tropical regions to keep away mosquitoes(11). These flowers are also used in many Indian festivals like Ugadi. Neem products are believed by siddha and Ayurvedic practitioners to be antihelmentic, antifungal, antidiabetic, antibacterial, antiviral, contraceptive and sedative. Neem oil is also used for healthy hair, to improve liver function, detoxify the blood and balance blood sugar levels. Neem leaves have also used to treat skin diseases like eczema, psoriasis etc.

Plant Profile 4:

Botanical name	Emblica officinalis
Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Euphorbiales
Family	Euphorbiaceae
Genus	Phyllanthus L
Species	Phyllanthus E L
Popular Name	Phyllanthus E, E, Amla
Parts used	Fruit
Habitat	Northern and south Western

Plant description :

The tree is small to medium in size, reaching 1 - 8 m (3 ft 3 inch - 26 ft 3 inch) in height. The branchlets are not glabrous or finely pubescent, 10–20 cm (3.9 -7.9 inch) long, usually deciduous. The leaves are simple, sessile, and closely set along branchlets, light green, resembling pinnate leaves. The flowers are greenish-yellow. The fruit is nearly spherical, light greenish yellow, quite smooth, and hard on appearance, with six vertical stripes or furrows.

Chemical constituents:

Emblica officinalis is very high in vitamin C, pectin, polyphenol compounds, gallic acid, ellagic acid, corilagin, phyllantidine and phyllantine (both alkaloids). Its ascorbic acid content ranges from 1000mg to 1700mg per 100grams [6]. Also found are hydrolysable tannins punigluconin, pedunculagin and Emblicanin A and Emblicanin B [7].

Uses:

Emblica exhibits strong antioxidant activity. It is one of the most important plants in the traditional Ayurvedic medical system as well as in other traditional health systems for immunomodulatory, antiulcer, anti-inflammatory, hepatoprotective and anticancer actions. However, there is very limited clinical evidence to support the use of *Emblica* for any indication [8].

Plant Profile 5:

Botanical name	Trigonella Foenum graecum
Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Fabales
Family	Fabaceae
Genus	Trigonella
Species	Foenum-graecum Linn

Plant Description :

Fenugreek, *Trigonella foenum-graecum* is an herbaceous annual plant in the family Fabaceae grown for its leaves and seeds which are used as a herb or spice. The fenugreek plant may have a single stem or may be branched at the stem base. The leaves of the plant are small and trifoliate with oval leaflets which are green to purple in color[12].

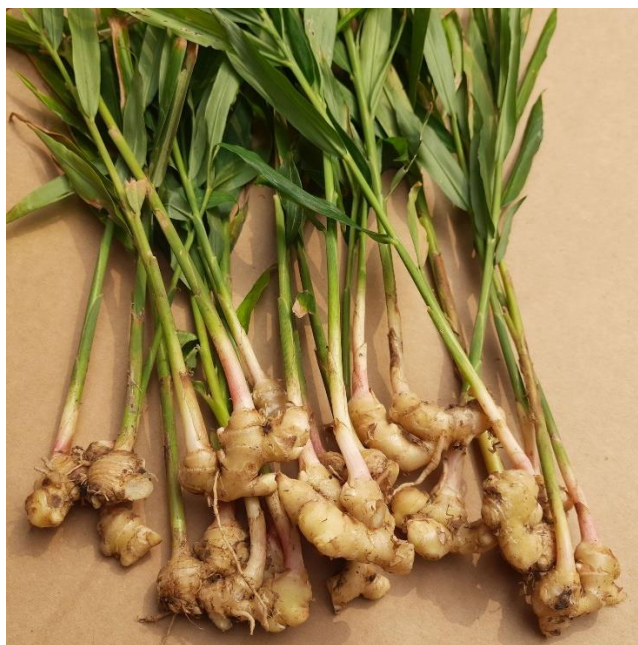
Chemical constituents :

Trigogenin, neotrigogenin, diosgenin, yamogenin, 4-hydroxyisoleucine, vitexin, isovitexin, saponaretin, homoorientin, vicienin-1, vicienin-2 and two flavonoid glycosides quercetin and luteolin and steroidal saponins have been isolated from seeds[13].

Uses:

Fenugreek has been used for controlling high blood sugar in people with diabetes. Some supplement products have been found to contain possibly harmful impurities/additives.

Plant Profile 6:



Botanical name	Zingiber officinale
kingdom	Plantae
Domain	Eukaryota
Class	Monocotyledon
Subphylum	Angiosperms
Order	Zingiberales
Family	Zingiberacea
Genus	Ginger
Species	Zingiber officinale

Plant description :

The ginger plant has a thick, branched rhizome (underground stem) with a brown outer layer and yellow center that has a spicy, citrusy aroma. Every year, it grows pseudostems (false stems made of tightly wrapped leaf bases) from the rhizome which bear narrow leaves. The flowers grow on separate, shorter stems in a cone-shaped spike and are pale yellow in colour with purplish edges[25].

Chemical Constituents :

active constituents, such as phenolic and terpene compounds. The phenolic compounds in ginger are mainly gingerols, shogaols, and paradols. In fresh ginger, gingerols are the major polyphenols, such as 6-gingerol, 8-gingerol, and 10-gingerol. With heat treatment or long-time storage, gingerols can be transformed into corresponding shogaols[26].

Uses :

Ginger is believed to be very useful in improving the scalp circulation that enhances the flow of blood to the scalp. It works on the hair follicles and augments natural hair growth. The vitamins, fatty acids and minerals present in ginger could help you better the quality of thin hair. It also restores moisture content and prevents hair loss. The magnesium, potassium and phosphorus present in ginger greatly aid in faster hair growth and that is why the number of people using ginger for hair is consistently growing.

Plant Profile 7:

Botanical name	Bacopa Monneri
kingdom	Plantae
Division	Magnoliophyta
class	Magnoliopsida
order	Lamiales
family	Scrophuaraiaceae
Genus	Bacopa
Species	Bacopamonnieri
Zoological Name	Bacopamonnieri

Plant description :

Brahmi is the small creeping herb with the numerous branches. It grows to a height of 2 -3 feet and its branches are 10 -35 cm long. It has oval shaped leaves that are 1-2 cm long and 3- 8 mm broad. Leaves are formed in pairs along the stems. Small tubular, five petaled flowers are white- purple in colour. Its stem is soft, succulent, and hairy with the glands. Roots emerge out of the nodules and directly go to the soil. The fruit is oval and sharp at apex[10].

Chemical constituents:

The major phytoconstituent of Brahmi are Bacosides. Bacosides are saponins in nature, which help to repair damaged neurons by enhancing proteins involved in the regeneration of neural-cell synapses in body. The alkali Brahmine resembles strychnine in action but is less toxic. It contains stigma sterol in free state. The active principle, Hersaponin resembles reserpine and chlorpromazine in action

Uses:

Bacopa has been used in traditional Ayurvedic treatment for epilepsy and asthma. It is also used in Ayurveda for ulcers, tumors, ascites, enlarged spleen, inflammations, leprosy, anemia, and gastroenteritis[11].

Plant Profile 8:

Botanical name	Psidium guajava
Kingdom	Plantae
Order	Myrtasles
Family	Myrtaceae
Genus	Psidium
Species	P. guajava

Plant description :

Psidium guajava is a large dicotyledonous shrub, or small evergreen tree, generally 3-10 m high, many branches; stems crooked, bark light to reddish brown, thin, smooth, continuously flaking; root system roots but no distinct taproot. Leaves opposite, simple; stipules absent, petiole short, 3-10 mm long; blade oblong to elliptic, 5-15 x 4-6 cm, apex obtuse to bluntly acuminate, base rounded to subcuneate, margins entire, some what thick and leathery, dull grey to yellow-green above, slightly downy below, veins prominent, gland dotted[27].

Chemical constituents :

Guava leaves (GLs) are a rich source of various health-promoting micro- and macronutrients as well as bioactive compounds. They contain 82.47% moisture, 3.64% ash, 0.62% fat, 18.53% protein, 12.74% carbohydrates, 103 mg ascorbic acid, and 1717 mg gallic acid equivalents (GAE)/g total phenolic compounds. Guava leaves contains 9.73% protein on a dry weight basis. Proteins are large biomolecules composed of amino acids and act as building blocks of cells. Proteins play a major role in growth and maintenance, enzyme regulation, and cell signaling, and as biocatalysts[28].

Uses:

The vitamin C content present in guava leaves can improve collagen activity aiding in hair growth and can also be used as a thickening agent. It also acts like an antioxidant that helps to neutralize the free radicals[29].

Plant Profile 9:

Botanical name	Elettaria cardamomum
Kingdom	Plantae
order	Zingiberaceae
Family	Zingiberaceae
Genus	Elettaria
Spcies	E.cadamomum

Plant description :

Elettaria cardamomum is a pungent, aromatic, herbaceous, perennial plant, growing to about 2–4 m (6 ft 7 in – 13 ft 1 in) in height. The leaves are alternate in two ranks, linear-lanceolate, 40–60 cm (16–24 in) long, with a long-pointed tip[30].

Chemical constituents :

The proximate composition of cured cardamom capsules includes carbohydrate 68.2%, protein 10.6 %, fat 2.4 % and ash 5.3 %. One hundred g of cured capsules contained calcium (93 mg), magnesium (182 mg), potassium (124 mg), phosphorus (183 mg), sulphur (100 mg) and iron (13 mg). The composition of oil from cold pressed cardamom seeds pre- dominantly consisted of oleic acid (49.2 g/100 g of oil), palmitic acid (26.4 g/100 g of oil) and linoleic acid (15.2 g/100 g of oil); these along with other minor fatty acids[30].

Uses :

This is valuable because the seeds contain a range of vital elements such as calcium, sulfur, and phosphorus. It is widely used as a mouth refresher in addition to its culinary purposes, but it also has other advantages. It has antispasmodic properties, making it extremely helpful in the treatment of muscle and respiratory spasms. Its antibacterial and antiseptic properties make it ideal for hair and scalp care.

Plant Profile 10:

Botanical name	Murraya Koenigii
Kingdom	Plantae
Subkingdom	Tracheobionta
Superdivision	Spermatophyta
Division	Magnoliophyta
Class	Magnoliopsida
Subclass	Rosidae
Order	Sapindales
Family	Rutaceae
Genus	Murraya J.Koenig
Species	Murraya Koenigii

Plant description :

Murraya koenigii, called curry leaf, is a small, tropical to sub-tropical tree or shrub that typically grows to 6-15' tall and is noted for its pungent, aromatic, curry leaves which are an important flavoring used in Indian/Asian cuisine. This tree is native to moist forests in India and Sri Lanka. Each odd-pinnate leaf typically has 11 to 21, thin, ovate, shiny, dark green leaflets (1-2" long)[31].

Chemical constituents :

Monoterpene hydrocarbons were the main constituents (82.1%) of the oil and contained α -pinene (51.7%), sabinene (10.5%), β -pinene (9.8%) limonene (5.4%)[32].

Uses :

It rejuvenates hair follicles, stimulates the growth of hair, repairs damaged roots, strengthens the hair, prevents hair fall and premature greying.

Plant Profile 11:

Botanical name	Ocimum tenuiflorum
Kingdom	Plantae
Subkingdom	Tracheobionta
Class	Magnoliopsida
Order	Lamiales
Family	Lamiaceae
Genus	Ocimum
Species	O. tenuiflorum

Plant description:

Tulsi is an erect, much branched sub-shrub 30-60 cm tall, with simple opposite green or purple leaves that are strongly scented and hairy stems. Leaves have petiole and are ovate, up to 5 cm long, usually somewhat toothed.

Chemical constituents :

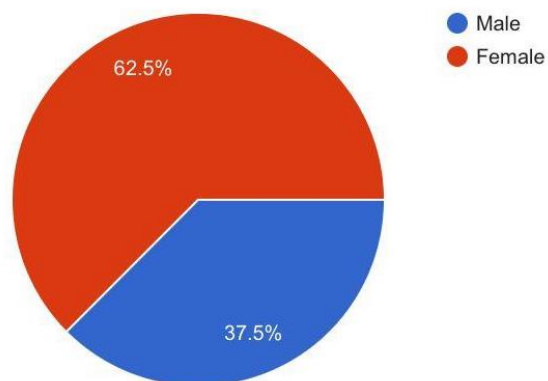
Fresh leaves and stem of *Ocimum sanctum* extract yielded some phenolic compounds (antioxidants) such as cirsilineol, circularity, isothymusin, apigenin and rosameric acid, and appreciable quantities of eugenol. The leaves of *Ocimum sanctum* contain 0.7% volatile oil comprising about 71% eugenol and 20% methyl eugenol. The oil also contains carvacrol and sesquiterpine hydrocarbon caryophyllene. Two flavonoids orientin and andvicenin from aqueous leaf extract of *Ocimum sanctum* have been isolated.

Uses :

Tulsi helps maintain moisture in your scalp and improves blood circulation, reduces itchiness and dryness, strengthens the hair follicles, and makes the roots healthy. It is the best beauty Benefits of Basil as the anti-oxidant present in tulsi is very useful in treating premature graying of hair as well as hair fall.

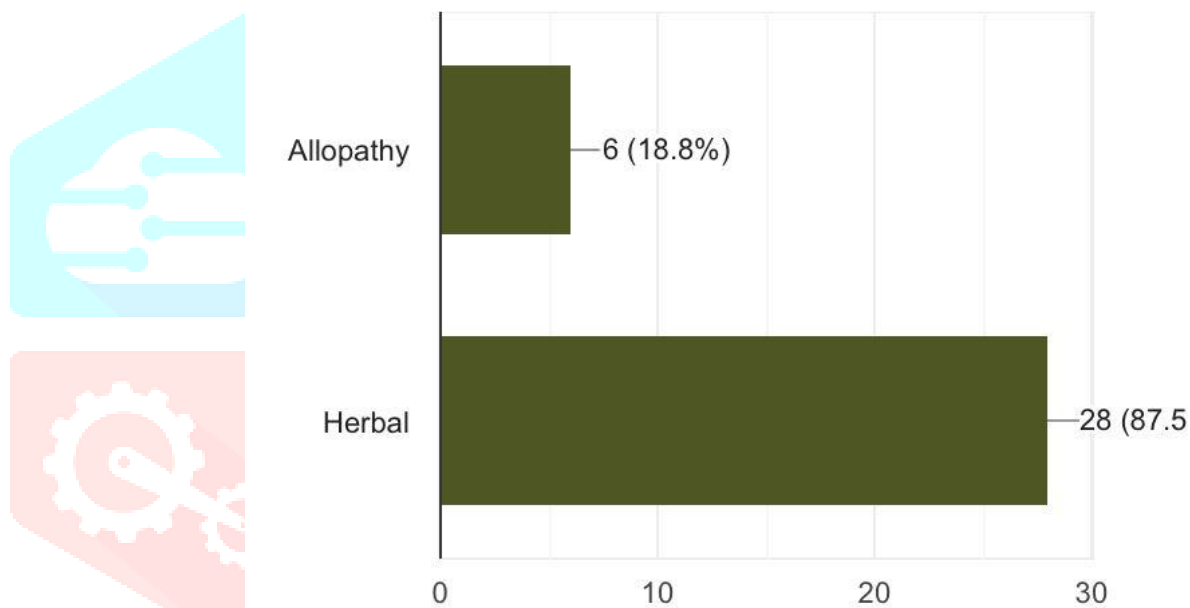
Survey Report

Questions and Response



62.5 % woman's used herbal hair oil and 37.5 % men used herbal hair oil, conclusion is most of the woman is used herbal hair oil.

- which herbal hair oil is mostly preferred like allopathy or herbal ?

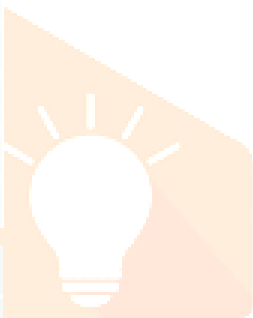
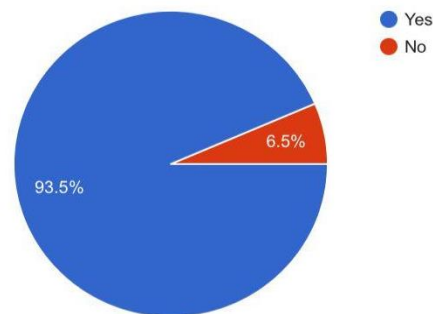


87.5 % people used herbal Hair oil & 18.8 % people use allopathy hair oil, conclusion is most of the people used herbal hair oil and they trust on herbal ingredients and herbal hair oil.

2. Name of herbal Hair oil peoples used ?

3. How many Peoples used coconut oil ?

Nilibrindagi hair oil
Bhringraj Hair oil
Keshkanti
Amla hair oil
Sesa ayurvedic hairoil
Parashut herbal
Alovera
onion and ginger
Patanjali
Mamaearth
coconut oil
Curry leaves hair oil
Kesh Amrut
Parachute
Parachute coconut hair oil
Sesa
Hibiscus hair oil
Mamaearth
Pareshut onin oil
Patanjali herbal hair oil
Coconut oil
Coconut
Indulekha
Indulekha hair oil
Indulekha hair oil
Jasvand oil
Neema herbal oil



4. Advantages of herbal hair oil ?

No side effects	
For strong , shiny hair , non sticky coconut hair oil	Natural ingredients gives good results and helth
Hair growth Premature hair growth Dandruff free hair oil	Herbal hair oil gives faster hair growth Herbal oil is beneficial than other oil.
Oil helps in scalp health.	-
Prevents hair loss,promote hair growth	Herbal hair is safer and less side effects comparatively allopathy hair oil
premature hair growing , remove dandruff, reduce hair fall.	There is no particular problem.
Reduces hair fall,and strengthen hair	.
	Nice result

5. other any comments ?

Herbal oil less side effect compare to allopathic hair oil. Herbal oil is natural hair oil. Herbal oil is best than allopathy oil. Herbal oil is chemical free oil.	Herbal hair is safer and less side effects comparatively allopathy hair oil
Herbal oil promote the hair growth	There is no particular problem.
Nothing	.
Nope	Nice result
Natural ingredients gives good results and helth	It's very good project to detail study on herbal hair oil. Our ayurveda has a lot of power that can cure all hair problems naturally and makes beautiful hair.
Herbal hair oil gives faster hair growth	Use hebal oil, it enhance your hair, prevent hair fall....
	Herbal impart more smoothness as compair to alopathic

Conclusion

The present review is to know about the various constituents available in herbal extracts such as minerals and amino acids may be the cause for the significant hair growth activity. All these drugs not only show remarkable activity but are also devoid of potential side effects as compared to synthetic drugs. It gets absorbed into the scalp with in a shorter period of time and thus acts as nourishment to hairs. It acts as natural hair nourisher, helping in hair growth by the reduction of hair fall. Due to the addition of Neem, it also acts as antidandruff hair tonic. Amla helps in thickening and blackening of hair. Hibiscus helps in hair softening resulting in healthy growth. All these dried and powered drugs mixed with coconut oil in sufficient quantities will give a permanent solution for hair fall and proper hair growth. This hair tonic also effectively used in treating headaches because of cooling effects and thus relieves from stress and strain conditions. It has shown good hair growth results without any allergic or side effects as it is completely constituted with naturally occurring crude drugs.

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