

**REVIEW ON ANTI-ACNE HERBAL FACE PACK**

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**ABSTRACT**

The present study is based upon the Anti-Acne Herbal Face pack. The herbal ingredients include i.e., Neem powder, Multhani matti, Turmeric, Aloe vera, Sandle wood, orange peel, Nutmeg myristicafragrams, Rose petals, Honey and Almond, were studied by based upon the literature review. Hence, we have concluded that the above ingredients having following therapeutic & prophylactic activities like anti-bacterial, anti-inflammatory, anti-viral, anti-fungal, nourishing, smoothing effect & also improving skin texture. Further investigations on different activities have to be done.

**KEYWORDS:** Smoothness, anti-acne, skin texture, herbal, therapeutic & prophylactic activities, Almond.

**INTRODUCTION**





Cosmetics are defined as the source which are sprinkled applied or poured on the skin to improve the beauty, colour & attractiveness to our skin when applied in small quantities. Herbal face packs are cheaper and have no side effects to get fair skin. The present review article deals with the formulation and evaluation of herbal face pack for radiant skin. At Multani Matti, turmeric, Aloe vera, sandalwood, orange peel, Chandan and neem powder. Various skin types require various kinds of herbal face packs. Homemade natural face packs and masks make way for smooth, healthy and silky skin. In ayurveda, the herbal paste applied to the face is known as "mukhalepa" for treating acne, pimples, wounds, stains and pigments. "Mukhalepana" is the process of smearing a herbal home using natural materials such as mix on face. This therapy is now popularly termed as facial. Face pack is the smooth powder that is used for facial application and a good herbal face pack will supply







the skin with the necessary nutrients and should penetrate the subcutaneous tissues to supply the nutrients needed. These packs are available in various styles and forms and are generally categorized as Plastic masks: wax-based, latex-based, or vinyl-based Hydrocolloid masks: Gel masks (ready to use) Argillaceous masks: clay based or earth-based (ready to use or dry powder).

### Herbal ingredients used in face pack

#### Materials

Collection of Materials: The various herbal sources of Materials were collected from the medicinal garden, local super market & surroundings of Dhanvanthari institute of pharmaceutical sciences.

S. no	Name of the Compound	scientific name	Pictures	Genus	uses
01	Multani Matti	Fullers earth		Solum fullonum	Skin care, hair care, dandruff, itchiness.
02	Turmeric	Curcuma longa		Curcuma longa	Anti-inflammatory, anti-oxidant, cancer treatment, inhibit cancer cell growth, inducing apoptosis.
03	Aloe vera	Aloe		Aloe	Skin care, wound healing, Digestive health, oral health, anti-inflammatory, hair care, anti-microbial and cosmetics.
04	Sandle wood	Santalum album		Santalum	Anti-microbial, anti-septic, sleep-aid, anti-septic and anti-inflammatory properties.

05	Orange peel			Citrus	Stress relief, skin care, anti-microbial and anti-fungal.
06	Neem powder	Azadirachta indica		Azadirachta indica	Insecticide, replicant, dental care, anti-viral, reduces plaque.
07	Nutmeg Myristicafragrans	Myristicafragrans		Myristicafragrans	Relieves indigestion, nausea, ease tooth pain, reduces anxiety and stress.
08	Rose petal powder	Rosa		Rosa	Smoothness, menstrual cramps, promotes skin health, improves mood.
09	Honey	Apis		Apis	Anti-microbial, wound healing, anti-oxidant and anti-inflammatory, cough.
10	Almond	Prunus dulais		Prunus	Treating Anemia, Anxiety and skin condition.

**01. Multani matti (Calcium bentonite)****Scientific name:** *Fuller's earth***Order:-** Lamiales**Genus:-** Solum fullonum**Family:-** Lamiaceae

**Chemical constituents**

Silica (SiO<sub>2</sub>): 50-70%, Alumina (Al<sub>2</sub>O<sub>3</sub>): 10-20%, Iron oxide (Fe<sub>2</sub>O<sub>3</sub>): 2-5%, Calcium oxide (CaO): 2-5%, Magnesium oxide (MgO): 1-3%, Potassium Oxide (K<sub>2</sub>O): 1-2%, Sodium Oxide (Na<sub>2</sub>O): 1-2%, Water(H<sub>2</sub>O): 5-10%.

**Active constituents**

**Hydrate aluminium silicate:** The main component of Multani Matti, which gives it its absorbant properties.

**Calcium bentonite:** A component of multanimatti, which is similar to bentonite clay.

**Kaolinite:** A type of clay mineral that is known for its soothing and calming properties.

**Therapeutic uses**

**Skin care:** Multani Matti is used to treat various skin conditions, such as acne, pimples, and blackheads.

**Hair care:** Multani Matti is used to treat dandruff, itchiness, and other scalp problems.

**Detoxification:** Multani Matti is used to detoxify the body by absorbing toxins, heavy metals, and other impurities from the skin and scalp.

**02. Turmeric (*Curcuma longa*)**

**Scientific name:** *Curcuma longa*

**Order:** - Zingiberales

**Genus:** -Curcuma

**Family:** -Zingiberaceae

**Chemical constituents**

Curcuminoids: 2-5%, volatile oil: 5-10%, Polysaccharides: 10-20%, Minerals: 5-10%.

**Active constituents**

**Curcumin:** The main active ingredient in turmeric which can make up to 5% of spice.

**Demethoxycurcumin:** The curcuminoid with potent anti-inflammatory, anti-oxidant properties.

**Volatile oils:** The aroma of turmeric comes from alpha and beta turmerones and aromatic turmerones.

**Therapeutic uses**

**Anti-inflammatory:** Turmeric contains curcumin, which has potent anti-inflammatory properties, reducing inflammation and alleviating symptoms of condition like arthritis.

**Anti oxidant:** Turmeric curcumin as antioxidant properties, protecting against oxidative stress.

**Cancer prevention:** Turmeric curcumin has been inhibiting cancer cell growth and inducing apoptosis.

**03. Aloe vera [Aloe barbadensis]**

**Scientificname:** *Aloe*

**Order:** -Asparaguses

**Genus:** - Aloe

**Family:** - Liliaceae.

**Chemical constituents**

Polysaccharides: 10-20%, Glyco proteins: 5-10%, Anthra quinones: 2-5%, Vitamins and minerals: 1-5%, Fatty acids: 1-5%.

**Active constituents**

**Aloin:** An anthra quinone with anti-inflammatory, anti-oxidant ad anti-microbial properties.

**Aloe-emodin:** An anthraquinone with anti-inflammatory, anti-oxidant ad anti-microbial properties.

**Lectins:** Glyco-proteins with anti-inflammatory and immunomodulatory properties.

**Therapeutic uses**

**Skin care:** - Aloe vera is used to treat various skin conditions, such as burns, wounds, eczema and acne

**Cosmetic uses:** - Aloe vera is used in various cosmetic products, such as lotions, shampoos, and conditions.

**Oral health:** - Aloe vera has been shown to reduce plaques, prevent tooth decay and soothe mouth ulcer.

**04. Sandal wood santalum alba**

**Scientific name:** *Santalum album*

**Order:** Santalales

**Genus:** Santalum

**Family:** Santalaceae

### Chemical constituents

Sesquiterpenes: 70-80%, Mono terpenes: 10-20%, Phenolic components: 5-10%, Aldehydes: 2-5%.

### Active constituents

**Santalol:** A sesquiterpene with anti-inflammatory, anti-oxidant and anti-microbial properties.

**Berganotol:** A sesquiterpene with anti-inflammatory, anti-oxidant properties.

### Therapeutic uses

**Anti-microbial:** Sandalwood oil has anti-microbial properties, which help prevent the growth of micro-organisms, reducing the risk of infection.

**Antiseptic:** Sandalwood oil has antiseptic and anti-inflammatory properties, making it effective in treating skin conditions.

**Sleep aid:** It is helping to improve sleep quality.

## 05. Orange peel

**Scientific name:** *Citrus Aurantium dulcis*

**Order:** Sapindales

**Genus:** Citrus

**Family:** Rutaceae

### Chemical constituents

Essential oils: 2-5%, Flavonoids: 1-3%, Limonoids: 1-2%, Carotenoids: 0.5 – 1.5%, Pectin: 10-20%.

### Active constituents

**Hesperidin:** A flavonoid with anti-oxidant, anti-inflammatory, cardiovascular / protective properties.

**Limonin:** A limonoid with anti-inflammatory, anti-oxidant and anti-microbial properties.

**Limonene:** A monoterpene with anti-inflammatory, anti-oxidant and anti-microbial properties.

**Therapeutic uses**

**Stress relief:** Orange peel has a calming effect on the mind and body, reducing stress and anxiety level.

**Skin care:** Orange peel is used in skin care products due to its antiseptics and anti-fungal properties.

**Anti microbial:** Orange peel has antimicrobial properties, which help to prevent the growth of macro-organisms, reducing risk of infections.

**06. Neem powder**

**Scientific name:** *Azadirachta indica*

**Order:** - Sapindales

**Genus:** - *Azadirachta*

**Family:** - Meliaceae

**Chemical constituents**

Triterpenoids: 10-20%, Flavonoids: 5-10%, phenolic acid: 2-5%, Essential oils: 1-3%, Saponins: 1-2%.

**Active constituents**

**Azadirachtin:** The most abundant active constituent in neem leaves.

**Nimbi:** A tetranortriterpenoid found in the bark of the neem plant.

**Beta-Sitosterol:** The polyphenolic flavonoid found in neem leaves. It has anti-bacterial and anti-fungal properties.

**Therapeutic uses**

**Insecticide and Repellent:** Neem powder is used as a natural insecticide and repellent, effective against mosquitoes and pests.

**Dental care:** Neem powder is used in dental care products to reduce plaque, prevent tooth-decay and soothe mouth ulcers.

**Anti viral:** It is effective against various virus.

**07. Nutmeg**

**Scientific name:** *Myristica fragrans* houtt.

**Order:** - Magnoliales

**Species:** - *Myristica fragrans*

**Family:** - Myristicaceae

**Chemical constituents**

Essential oils: 10-15%, Phenolic compounds: 2-5% Alkaloids:2-5%, Fatty acids:30-40%.

**Active constituents**

**Myristicin:** an essential oil with anti-inflammatory, anti-oxidant, psycho active properties.

**Elemicin:** An essential oil with anti-inflammatory, anti-oxidant and anti-microbial properties.

**Myristic acid:** A fatty acid with anti-inflammatory and anti-oxidant properties.

**Therapeutic uses**

**Relieves Indigestion and Nausea:** Myristica fragrans oil has natural anti-inflammatory properties that may help alleviate digestive issues.

**Ease tooth ache pain:** Myristica fragrans oil has been used as a natural remedy for tooth ache pain due to its analgesic and anti-inflammatory properties.

**Reduces Anxiety and Stress:** The aroma of Myristica fragrance oil may have a calming effect on the mind and body, reducing anxiety and stress.

**08. Rose petals powder**

**Scientific name:** *Rosa*

**Order:** - Rosales

**Genus:** -Rosa

**Family:** - Rosaceae

**Chemical constituents**

Essential oils: 1-3%, Flavanoids:5-10%, Phenolic acids:2-5%, Vitamins and minerals:1-5%.

**Active constituents**

**Geraniol:** An essential oil with anti-inflammatory, anti-oxidant and anti-microbial properties.

**Linalool:** An essential oil with anti-inflammatory, anti-oxidant and sedative properties.

**Gallic acid:** A phenolic acid with anti-inflammatory, anti-oxidant and anti-microbial properties.

**Therapeutic uses**

**Soothens menstrual cramps:** The powder may help ease menstrual cramps, blotting and other symptoms associated with PMS due to its anti-spasmodic and anti-inflammatory properties.

**Promotes skin health:** Rose petals powder may help to reduce inflammation, improve skin texture, and promote wounds healing due to its anti-oxidant and anti-inflammatory properties.

**Improves mood:** The powder may help alleviate symptoms of depression, improve mood, and promote relaxation due to its anti-depressant and anxiolytic properties.

**09. Honey**

**Scientific name:** - *Apis mellifera* Linnaeus

**Order:** - Hymenoptera

**Genus:** - *Apis*

**Family:** - Apidae

**Chemical constituents**

Carbohydrates: 70-80%, Water: 14-20%, Proteins: 0.5-1.5%, Minerals: 0.5-1.5%, Vitamins: 0.1-0.5%, Aromatic compounds: 0.1-0.5%.

**Active constituents**

**Flavonoids:** A class of compounds with anti-oxidant, anti-inflammatory and anti-microbial properties.

**Hydrogen peroxide:** A natural anti-septic with anti-bacterial and anti-fungal properties.

**Bee defensin-1:** A peptide with anti-microbial properties.

**Therapeutic uses**

**Wound healing:** Honey anti-bacterial and anti-fungal properties can help promote wound healing and tissue repair.

**Skin and hair care:** Honey's moisturising and anti-bacterial properties make it a popular ingredient in skin care and hair care products.

**Anti-microbial:** Honey's acidity and hydrogen peroxide content make it an effective agent against a range of micro-organisms, including bacteria, virus and fungi.

**Allergy relief:** Some studies suggest that consuming small amounts of locally produced honey can help desensitize individuals to local allergies.

## 10. Almond

**Scientific name:** *Prunus dulcis*

**Order:** - Rosales

**Genus:** - Prunus

**Family:** - Rosaceae

### Chemical constituents

Lipids: 50-60%, Proteins:20-25%, Carbohydrates: 15-20%, Minerals: 5-10%, Vitamins: 1-5%.

### Active constituents

**Vitamin E:** A fat-soluble vitamin with anti-oxidant properties.

**Mono unsaturated fatty acids:** A type of fatty acid with anti-inflammatory and cardiovascular protective properties.

**Magnesium:** A mineral with anti-inflammatory, anti-oxidant and cardiovascular protective properties.

### Therapeutic uses

**Cardio vascular health:** Almonds are rich in mono-unsaturated fats, vitamin E and magnesium, which can help lower cholesterol level and reduce the risk of heart diseases.

**Skin and hair care:** Almond oil, extracted from almonds, is rich in vitamin A, B and E and can help, moisturize and nourish the skin and hair.

**Immune system supportive:** Almond contains Vitamin E which can help support immune function and reduce the risk of illness like common cold.

**Weight management:** Almonds are low in carbohydrates and high in healthy fats and protein, making them a nutrition's, snacks for those trying to manage their weight.

## CONCLUSION

In the present scenario, people need cure for certain skin problems without side effects. Herbal ingredients opened the way to formulate cosmetics without any side effects. Herbal face packs are considered as sustaining and protective way to advance the appearance of skin. Thus, in the present work, it is very good attempt to formulate the herbal face pack containing naturally available ingredients like Hibiscus, orange peel, Neem, Multanimitti, Sandle wood and Amla. It is suggested that the prepared formulation was physically and microbiologically stable and possesses characteristics of cosmaceutical formulation for skin care.

**REFERENCE**

1. Okereke JN, standard Udebu1Cosmaceuticals: Definitions and Regulations. ClinDermatol 2001; 19(4): 37.
2. Ani AC, Ezeji EU, Obasi KO; Nnoli MC. Possible Health Implications Associated with Cosmetics: A Review, Sci J Public Health, 2015; 3(5-1): 58-63.
3. Mary P. Lupo. Antioxidants and Vitamins in Cosmetics. Clin Dermatol, 2001; 19: 467-473.
4. Sowmya KV, Darsika CX, Grace F, Shanmuganathan S. Formulation & Evaluation of Poly-herbal Face wash gel. World J Pharm PharmSci, 2015; 4(6): 585 588.
5. Millikan, Larry E. Cosmetology, Cosmetics, Rieger MM. Harry's Cosmeticology. In: Chapter 23, Face, body & Hair Masks & Scrubs. New York: Chemical Publishing Co., Inc, 2009; 8(1): 471-483.
6. Zinnia. Ayurvedic Face Packs for Glowing Skin. Style Craze, 2017; 24. Available from: <http://www.stylecraze.com/articles/5-ayurvedic-face-packs-for-glowing-skin>.
7. Baby, A. R., Zague, V., Maciel, C. P, M., Kaneko, T. M., Consiglieri, V. O., Velasco and M. V. R, Development of Cosmetic Mask Formulations. Rev Bras Cienc. Farm, 2004; 40(10): 159-161.
8. Banchhor, M., Ashawat, M.S., Saraf, S. and Saraf, S. Herbal Cosmetics: Trends in Skin Care Formulation. Phcog Rev, 2009; 3(5): 82 89.
9. Chanchal D. and Saraf S. Herbal Photoprotective Formulations and their Evaluation. The Open Nat Prod Journal, 2009; 2: 71-76.
10. Dureja, H., Kaushik, D., Gupta, M., Kumar, V., Lather, V. Cosmeceuticals: 'An emerging concept. Ind J of Pharmacol, 2005; 37(3): 155-159.
11. Kumar. K., Sasikanth, K., Sabareesh, M. and Dorababu, N. Formulation and Evaluation of Diacerein, 2011.
12. Cream. Asian J Pharm Clin Res Shoba rani R; Hiremanth. Text book of Industrial pharmacy, Drug delivery systems & Cosmetics & Herbal drug technology: Universities press (India) Ltd, 4(2): 9398, 5.
13. Millikan, Larry E. Cosmetology, cosmetics, cosmeceuticals: definitions and regulations. Clinics in dermatology, 2001; 19(4): 371-374.
14. B M Mithal; RN Saha. A Hand book of cosmetics: NK Jain, 2.
15. Swarnalathasaraf, Shailendrasaraf. Cosmetics a practical manual, Pharma med press, 2005; 1: 126-129.