

## Gum resinous exudation of guggulu & its utility in aromatherapy

Adlakha, Manoj and Bhargava, Akhlesh Kr.

**Received:** December 29, 2010 | **Accepted:** March 11, 2011 | **Online:** July 20, 2011

Aromatherapy is one of the oldest methods of holistic healing, equipped to rejuvenate the body, mind and spirit with the use of fragrance or aroma.

Aromatherapy, commonly associated with complementary and alternative medicine (CAM), is the use of volatile liquid plant materials, known as essential oils (EOs), and other aromatic compounds from plants to affect someone's mood or health.

The word was coined in the 1920s by French chemist René Maurice Gattefosse, who devoted his life to researching the healing properties of essential oils after a lucky accident in his perfume laboratory

The term 'aroma' refers to the characteristic scent that essential oils contain and 'therapy' referring to the healing modality; The ancient art of aromatherapy is based upon the principle that plant parts contain chemical constituents and a vital life force which impact our mind and body, assisting the body to heal itself in various ways.

### For Correspondence:



<sup>1</sup> Jammu institute of Ayurveda and Research, Jammu

<sup>2</sup> Rishikul Govt. P.G. Ayurvedic College and Hospital, Haridwar, Haridwar

### The main branches of aromatherapy include

- Home aromatherapy - Self treatment, perfume & cosmetic use
- Clinical aromatherapy - As part of pharmacology and pharmacotherapy
- Aromachology - The psychology of odors and their effects on the mind

### Guggulu

In present era we have lot of plants available for aroma Guggulu is one of them. The Guggulu is highly valued aromatic medicine used in Ayurveda, Indian System of Medicine.

Gugulu the Commiphora mukul is a small thorny tree that is native to the middle east and the Indian plains. Leafless, the tree exudes a thick, sticky resin that has been used in Ayurvedic medicine for centuries to treat inflammation, obesity etc.

Guggul contains resin, volatile oils, and gum. Ketone fraction that is extracted from the resin contains the most potent cholesterol lowering components. This is composed of C21 or C27 steroids, with the major components being Z - and E - guggulsterone.

These compounds have been shown to provide the lipid-lowering actions noted for guggul. Guggul significantly lowers serum triglycerides and cholesterol as well as LDL and VLDL cholesterols (the "bad" cholesterols). At the same time, it raises levels of HDL cholesterol (the "good" cholesterol). Guggul has also been shown to reduce the stickiness of platelets-another effect that lowers the risk of coronary artery disease.

Based on preliminary studies Guggulu has become a popular herbal treatment for high cholesterol. However, the best designed trial failed to find benefit.

### Ayurvedic properties

- Rasa, Tikta katu
- Guna Laghu tishna
- Veerya Ushna
- Vipaka Katu,
- Prabhava Tridosahara, Rasayana

### Why we needed Aromatherapy

- Inhalation (directly or diffused into the air)
- Absorption through the skin (baths, massages, compresses)
- Absorption through the mucous membranes (oral rinses and gargles)
- Ingestion (occasionally prescribed, with caveats)
  - Painless
  - Faster
  - Bioavailability

- Self-treated

### Origin & Habitat

Myrrh is an oleo gum resin obtained from species of *Commiphora* trees. These are over fifty species of *Commiphora* known Africa including *Commiphora molmol* (Somalian myrrh) & *Commiphora mada* (Abyssian myrrh). These are small tree Burseraceae family native to the bushland that covers the drier parts of north eastern Africa, Somalia, Arabia, India, Myrrh is now also found in Ethiopia, Iran & Thailand.

### Collection of gum resin

The gum resin resides in the duct located in the soft bark of the tree. Circular incisions are made on the main stem. From these incisions, a pale yellow aromatic fluid exudes that quickly solidifies to form a golden brown or reddish brown agglomerate of tears or stalactic pieces.

The oil which is distilled from myrrh resin is typically thick, pale yellow to orange-brown, with a warm, balsamic, sweet, spicy, and sharp aroma. It has many of the same properties as the resin itself.

**Essential Oils**, distilled and pressed from herbs, flowers and plant parts, are uniquely suited for respiratory problems. For the respiratory system, essential oils can be used in any or all of the following applications

**Essential oils** form the basis of *aromatherapy*. These essential oils are the extracts of plants and their parts and form their life force. These oils are extracted by the means of steam distillation, cold expression, or fixed oil or alcohol extraction. They are highly concentrated and should not be used

directly. These oils can be blended together and this blend is called synergy. The synergy is more potent than the individual oils combined. To reduce the potency of these oils, you can dilute them by mixing them with *carrier oils*.

### Action

- Aromatherapy is based mainly on the following therapeutic effects:
- Antiseptic effects: viricidal, bactericidal, fungicidal
- Anesthetic action (menthol, camphor)
- Central nervous system effects
- Metabolic / Endocrine effects
- Psychological effects Immuno - stimulator
- Alterative, analgesic, antispasmodic, aperient, astringent, carminative, demulcent, emmenagogue, expectorant, nervine, rejuvenative, and stimulant.

### Action and Uses in Ayurveda and Siddha

Tikta kashaya rasa, katu vipaka, vata kapha haram. pitta karam, lagu, saram, dipanam, ruksham, balyam, rasayanam, vrishyam, bhagnasanthana karam. In vranam, apachi, arsas, granthi and in skin diseases.

### Uses

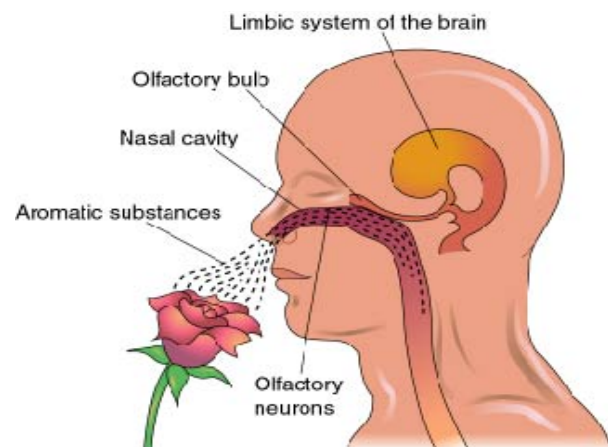
Abscesses, arthritis, bronchitis, enlarged cervical glands, high cholesterol, cystitis, diabetes, endometriosis, gouthemorrhoids indigestion, leucorrhea, lumbagonervous disorders, neurosis, heumatic disorders, skin diseases, tumors & ulcers mechanism.

### How Does Aromatherapy Work?

The essential plant distillates (essential oils) interrelate with the human body within four distinct modes of action, pharmacological (as phytopharmaceuticals), physiological (physically and chemically), psychological (affecting mental states and processes) and incorporeal (spiritual). Our body uses the aromatic molecules (essential oils) both

(1) through our olfactory system which is connected to the limbic system in the brain where our most primal feelings, urges and emotions reside,

(2) and by inhalation and skin absorption of the low weight molecular structure of essential oils. Aromatherapy works best within a holistic approach to wellness.



### Dosage

Daily recommendations for guggul are typically based on the amount of guggulsterones in the extract. A common intake of guggulsterones is 25 mg three times per day. Most extracts contain 5-10% guggulsterones. For a 5 percent guggulsterone extract, this translates to an effective dose of 500 milligrams three times per day. Many

people take the extracts daily for twelve to twenty-four weeks.

### Toxicity

LD 50 of essential oil is 705 mg/kg after I. P. administration and 1669mg/kg after oral administration I. P. doses of 400 & 600 mg/kg neither induced any behavioral changes nor showed any CNS effect.

### Safety

Part of the resin from which the medicinal extract is made is toxic and, hence, the raw resin should not be used for any treatment.

Early studies with the crude oleoresin reported numerous side effects, including diarrhea, anorexia, abdominal pain, and skin rash. Modern extracts are more purified, and far fewer side effects (e.g., mild abdominal discomfort) have been reported with long-term use. Gugglipid, the standardized extract has better chemical efficacy and is better tolerated by patients. Animal studies indicate that this material is not toxic. It is also believed safe to use during pregnancy (With your physician's supervision). The extract has not shown any adverse side effects, nor has it affected the liver function, blood sugar control, kidney function, or hematological parameters.

Guggul should be used with caution by persons with liver disease and in cases of inflammatory bowel disease and diarrhea. A physician should be consulted for any case of elevated cholesterol and/or triglycerides.

### Conclusion

Did you know that a drop or two of pure, therapeutic essential organic oils can enhance

your mood, your mental clarity, your energy, your circulation, and other critical systems of your body, mind and spirit...quickly, naturally, and often within minutes! When essential organic oils are diffused and inhaled, aromatherapy not only delivers the calming benefits of fragrance, it also **delivers many benefits** unique to essential oils. Guggulu resin has best place for aromatherapy.

It is antiseptic, disinfectant, wound healing & anti-inflammatory properties. Traditionally myrrh was used for many diverse purposes. It is a primary ingredient in incenses & holy oils used to inspire prayer, deepen meditation & revitalize the spirit. It is used to fumigate the body to promote cleanliness & stimulate immunity & continues to have an important role in cosmetic & perfumery.

The Advanced Clinical Aromatherapy Program has been developed by Essential Oil Resource Consultants (EORC) over the past eight years by leading aromatherapy educator, Rhiannon Harris

Essential Oil Resource Consultants are now pleased to announce that this unique Program of intensive study shall be available by distance learning from mid-2005.

### *The Advanced Clinical Aromatherapy Program is suitable for*

- Qualified herbalists wishing to develop improved formulation strategies using essential oils and related products.
- Qualified aromatherapists wishing to extend their knowledge and skills in clinical applications.
- Health care professionals working within a clinical environment that require a research-

based approach to using essential oils and related products.



*Guggulu-Commiphora mukul*

