

## Guggulu (*Commiphora mukul*) – A Medicinal Importance Herb in Ayurveda

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### ABSTRACT

Guggulu (Latinname - *Commiphora mukul*), is a small, thorny tree most commonly found in India, especially in the arid climates of Rajasthan and Gujarat. Moreover, Guggulu refers to the resin that is formed in the sap of the tree; it has been used for a long time in Ayurvedic medicine. In Sanskrit, “Guggulu” means “protects from disease.” There are a lot of varieties of Guggulu, each with different uses. Their uses are determined partially by the age and color of the gum. Well, it is believed that the Guggulu’s potency lasts for a long 20 years! Guggulu happens to be a very important herb as far as the Ayurvedic tradition is concerned. While this herb is rarely taken alone, a wide range of medicines are built around the medicinal use of Guggulu. Several traditional Ayurvedic formulations are prepared using compounds made from the base of purified Guggulu in synergistic combination of various other herbs.

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### INTRODUCTION

Guggul is the gum resin obtained from a variety of plants native to India, Bangladesh, and Pakistan. Some of the major species include *Commiphora wightii*, *Commiphora gileadensis*, *Commiphora mukul*, *Boswellia serrata*, and *Boswellia sacra*. All species are a part of the *Burseraceae* family, also known as the incense family. Guggul sap, also referred to as guggul, gum guggul, guggula, or gugulipid, is tapped from the plants similarly to how maple syrup is extracted from maple trees [1,2]. Guggul has been used for centuries in Ayurvedic medicine, a holistic, plant-derived medical system, to treat various health conditions, such as obesity, arthritis, and inflammation (1Trusted Source). Guggul contains a mixture of plant compounds, including steroids, essential oils, lignans, flavonoids, carbohydrates, and amino acids — all of which may be responsible for its various health effects [3]. Purported to have anti-inflammatory and antioxidant properties, it has been used in ancient medicine to protect against a variety of diseases [4].



## Medicinal uses of Guggulu are as follows:

- 1) Guggul is praised for its anti-inflammatory properties.
- 2) Preliminary research suggests it may help treat certain anti-inflammatory conditions, such as acne, eczema, psoriasis, and arthritis.
- 3) It has also been used to promote weight loss, treat hypothyroidism, and manage cholesterol and blood sugar levels [5].

## HEALTH BENEFITS

### 1) Acne

Guggul has been studied for its potential to treat acne. It has been shown to be effective in both complementary and alternative treatments for nodulocystic acne, a severe form of acne affecting the face, chest, and back. One dated study in 21 people found that taking 25 mg of guggulsterone orally was as effective as tetracycline, an antibiotic commonly used to treat acne. Additionally, people with notably oily skin responded significantly better to guggulsterone than the tetracycline treatment. Another older study found that taking guggul orally for 6 weeks helped treat acne without causing any major adverse effects. Although the results from these studies seem promising, more up-to-date research is warranted before strong conclusions can be made [6].

### 2) Eczema, psoriasis, and skin irritation

Eczema and psoriasis are both noncontagious skin conditions that are mainly caused by inflammation of the skin. Most of the research on guggul's ability to treat these and other skin irritations has investigated the effects of guggul extracted from the *Boswellia serrata* plant). Guggul-based creams have been shown to improve itchiness, redness or skin discoloration, and inflammation in people with psoriasis and eczema. A recent study also found that a guggul-based cream treated skin reactions that occurred as a side effect of radiotherapy treatment for breast cancer. It found that the guggul-based cream improved skin symptoms, such as redness, inflammation, tenderness, and pain, as well as reduced the need for topical steroid creams for treatment. Still, research is limited, and more studies are needed to confirm guggul's purported benefits for skin health [7].

### 3) Hypothyroidism

Thyroid disorders are relatively common, especially among women. Hypothyroidism is a condition in which your thyroid gland doesn't make enough thyroid hormones to keep your body running normally. Animal studies, some of which are dated, suggest that guggul extracts improve hypothyroidism by increasing iodine uptake and improving the activity of enzymes produced by the thyroid gland. One human study investigated the management of hypothyroidism employing *Triphladya Guggulu* tablets and *Punarnavadi Kashayam* decoction. Results showed that this treatment significantly improved signs and symptoms associated with hypothyroidism, such as weakness, fatigue, and muscle aches [8].

### 4) Weight loss

Guggul is often claimed to help treat obesity by promoting fat loss and suppressing appetite. However, very little high-quality evidence exists to support its use for this purpose. One test-tube study suggests guggul may promote weight loss by inducing the breakdown of fat, thus reducing the volume of fatty tissue. Another rat study found that guggul had positive effects on the appetite-regulating hormones ghrelin and leptin. However, it's unclear whether these effects would apply to humans. One older human study in 58 people with obesity noted that guggul promoted 5 pounds (2.25 kg) of additional weight loss, on average, compared with the

non-treated group. Additional studies have shown that herbal supplements containing guggul extract may help treat obesity by promoting weight loss and reducing both skinfold thickness and body circumference. Although the results of these studies seem promising, they don't examine the effects of guggul specifically on weight loss. Ultimately, further research is warranted to confirm the link between guggul and weight loss [8].

### 5) Hyperlipidemia

Guggul is a popular natural treatment for hyperlipidemia, which is the medical term for abnormally high cholesterol and triglycerides levels. Some animal research indicates that guggul may help reduce triglyceride, total cholesterol, and LDL (bad) cholesterol levels. However, the effects of guggul on cholesterol and triglyceride levels in humans remains unclear. While some studies have found that guggul has cholesterol-lowering effects, other research suggests no significant benefits. In fact, guggul may even raise LDL (bad) cholesterol levels in adults with hypercholesterolemia, though the research supporting this is dated. Nevertheless, more research is needed to understand the effect of guggul on cholesterol levels in humans [9].

### 6) Osteoarthritis

Early research suggests guggul may alleviate symptoms associated with osteoarthritis. One older study in 30 people with knee osteoarthritis who were treated with guggul showed improvements in knee pain and knee swelling, as well as increased knee flexion. Additionally, those treated with guggul increased their walking distance. Another older human study confirmed similar findings. Though additional studies are warranted, guggul appears to help treat osteoarthritis in humans without any significant side effects [9].

## CONCLUSION

*Commiphora mukil* (Muqil) is a miraculous herb with versatile medicinal benefits. In Unani medicine and other Indian system of medicines it is categorized among top ranked medicines. A variety of benefits have been scientifically proven and good chunk of properties are yet to be evaluated. Time of the hour is to validate benefits of muqil scientifically in various chronic diseases as discussed above in this article in the context of Unani or Ayurvedic systems of medicine

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