

Myrrh(*Commiphora myrrha*)

Common Name: Mukkul.

Location: Myrrh is a resin harvested from the myrrh tree, grown in East Africa, the Arabian Peninsula, and the Indian states of Gujarat and Rajasthan.

Description: Myrrh is aromatic and has a reddish-brown color.

Properties: Myrrh was widely used as an analgesic in the ancient Middle East. The renowned Greek physician Hippocrates (460-377 B.C.E.) praised myrrh as a balm for common sores. The Romans used it to treat infections of the eye and mouth, and the Hebrews used it as a painkiller. In the Vulgate translation of the gospel of Mark, the writer records that Jesus was offered a mixture of wine and myrrh just before the crucifixion, and myrrh is mentioned in the Holy Scriptures of both Judaism and Islam.

Uses: Myrrh can be used as an antiseptic for canker sores, strep throat and gingivitis and as an expectorant for congestion. It is a gentle anti-inflammatory for the mouth and throat. Myrrh can also be used for treating bleeding, pain, swelling, hemorrhoids and wounds. Myrrh stimulates the production of infection-fighting white blood cells and also has a direct and high microbial effect on its own. Myrrh contains many volatile oils that make it suitable for promoting free breathing during congestive colds and clearing mucus-clogged passages. It increases circulation and restores tone and normal secretion.

Doses: As little as five drops of essential oil is useful in making a gargle or mouthwash, but more than 30 drops is likely to leave a stronger aftertaste. The tincture should always be diluted before use, as undiluted forms may irritate the mouth or cause a burning sensation.

Warnings: Myrrh is used in traditional Chinese medicine (TCM) and in Tibetan medicine to relieve scanty menstruation. For this reason, women who tend to have heavy periods should avoid it. Myrrh should not be used during pregnancy. Large amounts may have a violent laxative action and can cause vomiting and an accelerated heartbeat. If bleeding gums or pain persists for longer than two weeks, consult a dentist.

## **Myrrh**

### *Origin of the Name*

Myrrh is a resin that has a bitter taste; its name is derived from Hebrew murr or maror, meaning bitter.

### *Origin and Habitat*

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

The major commercial source of myrrh is *Commiphora myrrha*. However, like frankincense, there are uncertainties about the origin and identity of different types, many of which are not from *Commiphoras*. Some of the varieties of resin found in the market include Mecca balsam, said to be the myrrh of the Bible; different types of bdellium, including perfumed bdellium, formerly known as East Indian myrrh, African bdellium, opaque bdellium, and Hotai bdellium; and gugul, or Indian bdellium. To further complicate the subject, there are also several varieties of opopanax which are sometimes confused with myrrh, such as *Commiphora guidotti*, known as sweet myrrh, cassie (*Acacia farnesiana*),

and copal (*Copaiba officinalis*), an oleoresin which the Catholic church uses in place of myrrh in Central and South America.

### *Morphology*

Myrrh is a thorny tree which grows in thickets to a height of about nine feet, preferring well-drained soil in the sun. The light gray trunk is thick and the main branches are knotted, with smaller branches protruding at a right angle and ending in sharp spines. It has hairless toothed leaves with a large terminal leaflet and two tiny lateral leaflets. Yellow-red flowers grow on stalks in an elongated and branching cluster; they are about five millimeters long and come out just before the rains. The small brown fruits are about one and a half centimeter long, tapering to a pronounced beak. The bark has a silvery sheen and peels in small pieces.

### *Collection of Resin*

Like frankincense, myrrh resin is collected as a thick, strongly aromatic yellow liquid from natural cracks or cuts in the tree bark, which then dries into amber or reddish-brown colored lumps. The tears are found in many sizes, the average being that of a walnut. The surface is rough and powdered, and the pieces are brittle, semi-transparent, oily, and often show whitish marks. It is flammable, but less so than frankincense. Adulterations are not easily detected in the powder, so it is better to purchased in bulk so they can be removed.

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.

### *Historical and Traditional Uses*

Myrrh is one of the oldest medicines in the world. It has been mentioned in Egyptian medical texts since 2,800 BCE, and is one of many herbs mentioned in the Ebers Papyrus, which documents over eight hundred medicinal recipes. The Egyptians consumed large amounts of myrrh, both in temple rituals and embalming; it was also burned in temples of Babylon, Greece, India, Rome and China. It is one of the ingredients of the famous magic-inducing incense, Kyphi, and the ointment Metopian, used for treating infections and wounds. In Chinese medicine, the use of myrrh was recorded as early as 600 CE during the Tang Dynasty, where it was used in a similar manner. Like frankincense, myrrh was an important trade item for more than a thousand years.

Traditionally, myrrh was used for as many diverse purposes as frankincense. It was a primary ingredient in incenses and holy oils used to inspire prayer, deepen meditation, and revitalize the spirit. It was used to fumigate the body to promote cleanliness and stimulate immunity, and continues to have an important role in cosmetics and perfumery. It has also been used to treat cattle and camels, and burned to repel snakes.

### *Therapeutic Uses*

Like frankincense, myrrh resin is a predominant part of the trees immune system. Many of the therapeutic functions of myrrh are therefore similar to frankincense. A comparison of the two reveals that myrrh is more astringent, antiseptic, disinfectant, bitter, and tonic, while frankincense is more anti-inflammatory, blood vitalizing, and mentally uplifting. The two are often combined. Like frankincense, myrrh has a long history of use for a wide range of conditions, with virtually no toxicity.

The Eclectic physician Dr. Ellingwood describes the therapeutic properties of myrrh as follows: “This agent has always been highly esteemed as a stimulant, although its influence is more of a local than a general character. It exercises the characteristic influence of most of the stimulants upon the excretions

and secretions, acting as a diaphoretic, expectorant, sialagogue, and to a certain extent emmenagogue. As a most active general stimulant in ulcerative, engorged, flabby and atonic conditions of the mucous membranes of the mouth and throat this agent acts promptly. It stimulates the capillary circulation, restores tone and normal secretion and causes the healing of ulcerations. In its influence upon the digestive apparatus myrrh is direct in its action. It quickly increases the power of the digestive function, stimulating the peptic glands to extreme action. It increases the appetite and promotes the absorption and assimilation of nutrition. It is given in atonic dyspepsia in the absence of inflammatory action, especially if there is excessive mucous discharge from the bowels.

Below is a brief list of the most important therapeutic applications of myrrh, which is by no means complete; like frankincense, its uses are so numerous that it can also be described as a panacea.

### *Mouth and Throat*

Myrrh is a specific and highly effective antiseptic astringent for inflammations of the mouth, throat, and gums. It is a common ingredient of herbal toothpastes and mouthwashes, and is widely used through India and the Middle East for oral and dental problems. The German Commission E has approved myrrh for treating mouth inflammation. Its list of indications includes mouth sores and ulcers, gingivitis, irritation from dentures, soreness and looseness of teeth and gums, gum disease, tooth decay, and bad breath. Myrrh is also very effective for infectious and inflammatory conditions of the throat, including strep throat, tonsillitis, and pharyngitis.

For these various symptoms, tincture of myrrh can be diluted and used as a mouthwash and gargle, or applied directly to sores. It is frequently combined with echinacea and/or golden seal for these purposes.

### *Digestion*

In the digestive tract myrrh acts as a stimulant, carminative, tonic, and cholagogue. Its bitter principles stimulate the appetite and the flow of digestive juices, improving digestion and absorption. It both relaxes and invigorates the stomach, calming spasms, relieving gas, and combating fatigue associated with weak digestion. Its antibacterial and antifungal powers help reduce candida and other pathogenic factors in the gut. Myrrh has pronounced anti-parasitic properties. By improving digestion myrrh clears toxins from the digestive tract and acts as a general detoxifying and anti-inflammatory remedy, thereby treating the root causes of arthritis, rheumatism, and gout. It can be combined with aloe vera for treatment of both the symptoms and causes of constipation.

### *Respiratory System*

Myrrh is a stimulant, expectorant, and decongestant with antibacterial properties. It is helpful for relieving bronchitis, asthma, and colds. In Ayurvedic terms, it dries kapha (mucous secretions), reduces pitta (antibiotic), and stimulates prana (opens breathing). In Chinese terms, it is a stimulant of Wei Chi (respiratory immune enhancing). It can be a specific remedy for chronic sinusitis. It can be used in carrier oil as a chest rub.

### *Skin*

Myrrh is an astringent antiseptic that is beneficial for acne, rashes, and inflammatory skin problems. The tincture, powder, or essential oil of myrrh can be applied directly to ulcerated sores, wounds, and abrasions. It can be made into salves for treating hemorrhoids and bed sores. For boils it can be taken as a blood cleanser while also being applied externally. It is an excellent addition to the medicine cabinet of those who live in tropical places such as Hawaii, where staph infections can be easily acquired from coral cuts or walking on beaches.

### *Wounds and Bruising*

Myrrh is similar to frankincense in its wound-healing and blood-vitalizing properties, and the two are often combined in liniments.

### *Antimicrobial and Immune Stimulant*

Myrrh is both an antimicrobial agent and a direct stimulant of white blood cell production. It increases resistance to infection, and is one of the most effective of all known disinfectants from the plant kingdom. It is a rejuvenating tonic, and is reputed to enhance of the intellect.

### *Gynecology*

Myrrh acts as an anti-spasmodic circulatory stimulant to the uterus. In this capacity, the resin or tincture is taken for amenorrhea and dysmenorrhea as a purgative of stagnant blood. It helps normalize irregular periods. Myrrh helps promote efficient contractions and relieves pain during childbirth. As an antimicrobial, dilute tincture can be used in vaginal douches. Its internal use should be avoided by pregnant women.

### *Circulatory System*

Myrrh is classified in Chinese medicine as a blood vitalizer with anti-rheumatic and anti-arthritic powers. It is commonly used in liniments and medicated oils for these conditions, as well as general circulatory weakness and stagnation.

### *Warnings and Contraindications*

Myrrh should not be taken orally by women who are pregnant. Oral doses of two to four grams have resulted in kidney irritation and heart rate changes, both of which resolved after individuals stopped taking myrrh. Cases of allergic rashes have been reported from the topical use of myrrh. It may lower blood sugar in some individuals.

### *Myrrh Abstracts from PubMed*

A sampling of studies published on PubMed concerning myrrh derived from different species of *Commiphora* reveals that the resin reduces cholesterol and triglycerides; that it is a promising non-hepatotoxic anti-helminthic for schistosomiasis; that it is highly effective (100 per cent cure rate) on fascioliasis parasite without remarkable side effects; that its triterpene Myrrhanol A is a more potent anti-inflammatory than hydrocortisone; that it possesses smooth muscle-relaxing properties; that its sesquiterpene fractions had antibacterial and antifungal activity against pathogenic strains of *E. coli*, *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Candida albicans*; and that its extract has strong efficacy as an insecticide against the cotton leafworm. In other publications it has been reported that a sesquiterpenoid compound isolated from myrrh is highly effective against drug-resistant tumor cells found in the breast and prostate, without toxicity to healthy cells.

## **Myrrh Gum and Powder Profile**

### **Also known as**

*Commiphora myrrha*, *Balasmოდendron myrrha*.

## Introduction

With its smoky, earthy scent, myrrh has a long history as a favorite among all cultures going back to its first discovery in the far reaches of time. A native to Ethiopia and Somalia, it has been used as long ago as 3000 BCE by the Egyptians in embalming, and as an incense burned during cremations and funerals to disguise any foul odors up through the 15th century. Myrrh is said to be one of the key ingredients in the mythical Egyptian perfume Kyphi. It has also been used to anoint kings, and scent fabrics for those traveling to holy places. Myrrh has had a great value throughout time; the Romans even valued it as much as gold, using it as security for monetary debts. Myrrh has been used traditionally for the treatment for spasms, infections, coughs, colds, failure of menstruation, and chronic fatigue. In Ayurvedic medicine, myrrh is a favorite addition to the rasayanās for rejuvenation and disease prevention, especially as a spring tonic.

## Constituents

Gums, resins, sterols, volatile oils.

## Parts Used

Dried exudates (resin) from the bark.

## Typical Preparations

Tincture, rarely tea or encapsulation, included in Ayurvedic and traditional Chinese herbal mixtures. Used in conjunction with other ingredients for the development of many cosmetic applications.

## Summary

Despite its long history, the use of myrrh has declined over the past few hundred years. Today myrrh is used a topical antiseptic for cuts, scrapes, scratches, and abrasions, and as an addition to toothpastes, mouthwashes, and gargles to control infections of the mouth and throat. In Chinese herbal medicine, it is included in formulas to treat uterine fibroids, although it is not used alone. The German E Commission's monograph states that it is good for the topical treatment of oral inflammations, and as an antiseptic.

## Precautions

Avoid use when you have "red" symptoms, for example, fever, blistering, hot flashes, or nervous tension. It use is not recommended while pregnant and it may cause nausea or vomiting in excess.

**Botanical: Commiphora myrrha (HOLMES)**

**Family: N.O. Burseraceae**

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---**Synonyms**---Balsamodendron Myrrha. Commiphora Myrrha, var. Molmol. Mirra. Morr. Didin. Didthin. Bowl.

---**Part Used**---The oleo-gum-resin from the stem.

---**Habitat**---Arabia, Somaliland.

---**Description**---The bushes yielding the resin do not grow more than 9 feet in height, but they are of sturdy build, with knotted branches, and branchlets that stand out at right-angles, ending in a sharp spine. The trifoliolate leaves are scanty, small and very unequal, oval and entire. It was first recognized about 1822 at Ghizan on the Red Sea coast, a district so bare and dry that it is called 'Tehama,' meaning 'hell.'

Botanically, there is still uncertainty about the origin and identity of the various species.

There are ducts in the bark, and the tissue between them breaks down, forming large cavities, which, with the remaining ducts, becomes filled with a granular secretion which is freely discharged when the bark is wounded, or from natural fissures. It flows as a pale yellow liquid, but hardens to a reddish-brown mass, being found in commerce in tears of many sizes, the average being that of a walnut. The surface is rough and powdered, and the pieces are brittle, with a granular fracture, semi-transparent, oily, and often show whitish marks. The odour and taste are aromatic, the latter also acrid and bitter. It is inflammable, but burns feebly.

Several species are recognized in commerce. It is usually imported in chests weighing 1 or 2 cwts., and wherever produced comes chiefly from the East Indies. Adulterations are not easily detected in the powder, so that it is better purchased in mass, when small stones, senegal gum, chestnuts, pieces of bdellium, or of a brownish resin called 'false myrrh,' may be sorted out with little difficulty.

It has been used from remote ages as an ingredient in incense, perfumes, etc., in the holy oil of the Jews and the *Kyphi* of the Egyptians for embalming and fumigations.

Little appears to be definitely known about the collection of myrrh. It seems probable that the best drug comes from Somaliland, is bought at the fairs of Berbera by the Banians of India, shipped to Bombay, and there sorted, the best coming to Europe and the worst being sent to China. The true myrrh is known in the markets as *karam*, formerly called *Turkey myrrh*, and the opaque bdellium as *meena harma*.

The gum makes a good mucilage and the insoluble residue from the tincture can be used in this way.

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---**Constituents**---Volatile oil, resin (myrrhin), gum, ash, salts, sulphates, benzoates, malates, and acetates of potassa.

It is partially soluble in water, alcohol, and ether. It may be tested by a characteristic violet reaction if nitric acid diluted with an equal volume of water is brought into contact with the residue resulting from the boiling of 0.1 gramme of coarsely powdered myrrh with 2 c.c. of 90 per cent alcohol, evaporated in a porcelain dish so as to leave a thin film.

The oil is thick, pale yellow, and contains myrrholic acid and heerabolene, a sesquiterpene.

---**Medicinal Action and Uses**---Astringent, healing. Tonic and stimulant. A direct emmenagogue, a tonic in dyspepsia, an expectorant in the absence of feverish symptoms, a stimulant to the mucous tissues, a stomachic carminative, exciting appetite and the flow of gastric juice, and an astringent wash.

It is used in chronic catarrh, phthisis pulmonalis, chlorosis, and in amenorrhoea is often combined with aloes and iron. As a wash it is good for spongy gums, ulcerated throat and aphthous stomatitis, and the tincture is also applied to foul and indolent ulcers. It has been found helpful in bronchorrhoea and leucorrhoea. It has also been used as a vermifuge.

When long-continued rubefacient effect is needed, a plaster may be made with 1 1/2 OZ. each of camphor, myrrh, and balsam of Peru rubbed together and added to 32 OZ. of melted lead plaster, the whole being stirred until cooling causes it to thicken.

Myrrh is a common ingredient of toothpowders, and is used with borax in tincture, with other ingredients, as a mouth-wash.

The Compound Tincture, or Horse Tincture, is used in veterinary practice for healing wounds.

*Meetiga*, the trade-name of Arabian Myrrh, is more brittle and gummy than that of Somaliland and has not its white markings.

The liquid Myrrh, or *Stacte*, spoken of by Pliny, and an ingredient of Jewish holy incense, was formerly obtainable and greatly valued, but cannot now be identified.

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---**Dosages**---10 to 30 grains. Of fluid extract, 5 to 30 minims. Tincture, B.P. and U.S.P., 1/2 to 1 drachm. Of tincture of aloes and Myrrh, as purgative and emmenagogue, 30 minims. Of N.F. pills of aloes and Myrrh, 2 pills. Of Rufus's pills of aloes and Myrrh, as stimulant cathartic in debility and constipation, or in suppression of the menses, 4 to 8 grains of Br. mass.

#### ---**Other Species**---

*Bissa Bôl*, or perfumed bdellium of the Arabs, has an odour like mushrooms. Though it is sent from Arabian ports to India and China, it was formerly known as East Indian Myrrh. It is of a dark colour, and may be a product of *Commiphora erythraea*, var. *glabrescens*, of *B. Kalaf*, *A. Kafal*, *B. Playfairii* or *Hemprichia erythraea*.

*B. Kua* of Abyssinia has been found to yield Myrrh.

*Mecca balsam*, a product of *B.* or *C. Opobalsamum*, is said to be the Myrrh of the Bible, the Hebrew word *mar* having been confused with the modern Arabic *morr* or Myrrh in translation.

*Bdellium*, recognized as an inferior Myrrh and often mixed with or substituted for it, is a product of several species of *Commiphora*, according to American writers, or *Balsamodendron* according to English ones. Four kinds are collected in Somaliland, making sub-divisions of African Bdellium:

- Perfumed Bdellium or Habaghadi,
- African Bdellium,
- Opaque Bdellium,
- Hotai Bdellium.

These African bdelliums, said by some writers to be products of *Balsamodendron (Heudelotia) Africanum*, are in irregular, hard, roundish tears about an inch in diameter, pale yellow to red-brown, translucent, the fracture waxy, taste and odour slight.

The product of *Ceradia furcata* is also called African Bdellium.

The commercial *Gugul*, or Indian Bdellium, is said by some writers to be a product of *Commiphora roxburghiana*, by others of *B. Mukul*, and by others again of *B. roxburghii* or *Amyris Bdellium*. It is more moist than Myrrh; is found in irregular, dark reddish brown masses, with a waxy fracture; softens with the heat of the hand; adheres to the teeth when chewed; and smells slightly of Myrrh.

It is used in the East Indies in leprosy, rheumatism and syphilis, and in Europe for plasters.

---*Dosage*---10 to 40 grains.