

MEHANA HERBARIUM

Frankincense (*Boswellia* trees)



Frankincense, also known as olibanum, is an aromatic resin obtained from trees of the genus *Boswellia* in the family Burseraceae.

Origins of the NAME

The word is derived from the French “**franc encens**” (“high-quality/ original incense”). Another name, **olibanum**, is cognate with the name of Lebanon, which derives from the word for “white” or “milk”. This is regarded as a reference to the snow-capped **Mount Lebanon**, a symbol of the ancient spice trading routes.

BOSWELLIA TREES

Only three species of *Boswellia* are described as producing true frankincense. These plants are found in specific geographic areas: ***Boswellia sacra*** (Arabic Peninsula), *Boswellia carteri* (synonym for *Boswellia sacra* – Horn of Africa), ***Boswellia serrata*** (India), and ***Boswellia papyrifera*** (Ethiopia, Sudan). Resin from each is available in various grades, which depend on the time of harvesting.

The trees start producing resin at about eight years old. Tapping is done two to three times per year with the final taps producing the best yield because of their higher aromatic terpene content.

Unfortunately, the number of precious **Boswellia trees declines due to overexploitation**. Seeds of multi-tapped trees are believed to germinate five-fold less than those of un-tapped ones.





REMEDY SINCE ANCIENT TIMES

Frankincense as a precious natural remedy is documented across all major medicinal traditions since about 5000 years ago.

Within **Traditional Chinese medicine**, frankincense has been employed for enhancing blood circulation and mitigating inflammation, in **Ayurvedic medicine** for the treatment of arthritis and asthma, in **Persian medicine** for diabetes and digestive disorders, and in **ancient Egypt**, the resin served as a conserving agent for mummification.

Until the present day, frankincense makes up part of **Christian ceremonies**, being introduced in Europe during the Crusades in the Middle Ages.

Fumigated frankincense has been used for **cleansing, blessings, prayers, and protection against evil**.

Frankincense is mentioned in the **ancient scripts**. In the **New Testament**, one of the magi presented olibanum along with myrrh and gold to the newborn Christ Child.

Valuable MEDICINE

Frankincense is the most important resinous medicine ever described.

In general, resin represents an **immune system of a tree**. The more demanding the natural environment, the higher the medicinal value of the plants.

This is why trees of the genus *Boswellia*, which are grown in arduous desert areas, are so highly valued.

The important medicinal properties are mostly attributed to the **high content of terpenes**, such as limonene, α - and β -pinene and α -thujene. **Boswellic acid** presents the highest biological activity among terpenes.

Olibanum presents with **anti-inflammatory, antimicrobial, antifungal, pain-releasing, immunomodulatory, antioxidative, and anti-cancer** properties.



MEDICAL PURPOSE

The medical purposes of frankincense are wide-ranged.

The resin is used in the treatment of **gastrointestinal inflammatory disorders** (gastric ulcers, irritable bowel, and colitis), in **joint problems** (rheumatoid arthritis, osteoarthritis), **neurodegenerative diseases** (multiple sclerosis, parkinsonism), injury-induced **cerebral edema**, chronic and acute **respiratory diseases** (asthma, sinusitis, bronchitis), or in treatment of **multi-resistant bacterial infections** (wound-care, general infections).

Frankincense **promotes digestion**, enhances appetite, inhibits gastric pain, and eliminates intestinal gases. It also shows benefits in the treatment of **gingivitis, psoriasis, eczema**, and other skin problems.

The aromatic essences are used for **psycho-emotional conditions**, such as stress, anxiety, depression, or agitated states of mind, and for **headache** and **insomnia**.



COMPONENTS and Health-benefits

Boswellia resin is composed of alcohol-soluble oils rich in mono-, di- and sesquiterpenes (60-85%), water-soluble gum (21%), and essential oils (5-9%). The **anti-inflammatory** effects are attributed to its inhibition of lipoxygenase resulting in a decrease of leukotriene inflammatory mediators. The **anticancer** effect is related to the inhibition of topoisomerase (DNA-altering enzyme), and the increase of apoptosis (tumor cell death).

In one study*, olibanum extracts have been tested for **neuroprotective effects**. In rats, the condition of “sick brain” (hepato-encephalopathy) has been induced by bile-duct ligation. Consequently, brain functions have been evaluated. Rats in the group, that received intravenous frankincense therapy, presented **increased cognitive functions** (spatial memory), **an increase in the number of neurons**,

and a **decrease in brain inflammatory markers** (TNF- α) compared to the control group.

Anti-cancer effect

Another study** investigated the antiproliferative effect in breast cancer patients. Within 11 days, patients treated with *Boswellia serrata* extract perorally showed **50% lower tumor cell proliferation** compared to the control group.

A **decrease in tumorous proliferation** has been presented also in neural, blood, or colorectal malignant cells.

SPIRITUAL TRADITIONS

Olibanum is often regarded as a **sacred scent** and **spiritually uplifting** remedy. The incense is connected with the sun and **solar energy**, sometimes being called “crystallized drops of sunlight”.

Fumigation with olibanum has been used in various cultures to treat a wide range of psychological and emotional disorders. **Aromatherapy** with olibanum is used to promote **calmness, serenity**, and a **relaxed state of mind**. It is considered to encourage connection with the inner self and the divinity through deep introspection.

Forms of use:



- **Fumigated raw resin:**

One piece of resin is placed on a hot charcoal or on a sieve above a candle. The warmed resin releases a pleasant scent rich in terpenes.

Fumigation is beneficial for the respiratory tract by promoting its cleansing and mucous expulsion. Inhalation of frankincense further invokes calmness, eliminates headaches and regulates insomnia. The odor serves as a good insect repellent.

- **Essential oil:**

Essential oil can be used in a diffuser for aromatherapy promoting similar effects as in fumigation. If added to carrying oils or ointments, it serves for the treatment of skin infections, allergies, and eczema.

- **Chewing gum:**

Boswellia resin can be chewed raw. As a mouth disinfectant, it treats mucosal inflammation and infection and encourages digestion.

- **Dissolved in water:**

Put one piece of resin in a glass of water overnight. Stir and drink in the morning on an empty stomach. Promotes digestion and prevents digestive sickness.

- **Tincture** (resin dissolved in alcohol):

Apply locally for wound care. Dilute several drops in a glass of water and drink to eliminate digestive problems and boost overall immunity.

- **Frankincense oil:**

Macerate ground resin in vegetable oil for 4-6 weeks. Shake regularly. Use for skin care as a soothing, cleansing, anti-aging, and anti-wrinkle product.

- **Ointment:**

Add beeswax to the oil and macerate to achieve a more solid form. Apply on painful joints 2-3 times a day. Promotes wound healing and eliminates pain and inflammation in joint problems (e.g., rheumatoid arthritis). Treats eczema.



Frankincense is an outstanding natural product that promotes health benefits on the physical and psycho-emotional levels. It is a symbol of the richness nature offers to us and therefore should be employed with respect and moderation in order to avoid extinction of the precious Boswellia trees.

References:

<https://pubmed.ncbi.nlm.nih.gov/27117114/>

(*) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10329248/>

(**) <https://pubmed.ncbi.nlm.nih.gov/38194131/>

<https://pubmed.ncbi.nlm.nih.gov/12244881/>

<https://pubmed.ncbi.nlm.nih.gov/20696559/>

<https://pubmed.ncbi.nlm.nih.gov/28549801/>

<https://pubmed.ncbi.nlm.nih.gov/24848732/>

<https://pubmed.ncbi.nlm.nih.gov/32027979/>

<https://www.sciencedirect.com/topics/medicine-and-dentistry/frankincense>

<https://animamundiherbals.com/blogs/blog/frankincense-the-worldsmost-important-resin-medicine>

Author: Kristina Höschlová

Kindly revised by David Poff



Mehana[®]
*Medicina in Harmonia
cum Natura*

<https://www.mehanainstitute.com/>

<https://www.youtube.com/@mehanainstitute8753>

<https://www.facebook.com/mehanainstitute>

<https://www.instagram.com/mehanainstitute>