

## Benefits of Mastic

- ❖ Used in personal hygiene products because of the antibacterial and antifungal properties.
- ❖ Is effective on soothing, softening and healing.
- ❖ Used as an expectorant in problems such as bronchitis and cough.
- ❖ Externally acts against rashes, ulcers and muscle stiffness.
- ❖ It is a single worldwide organization offering the many benefits. Within the European Union, mastic production in Chios is granted [protected designation of origin](#). You will find it on the market in powder and flake form to produce products as: bagels, jams, nutritional supplements, liquor, wine, candles, essential oils, pharmaceutical and cosmetic formulations that include mastic. Mastic Chios has often been the focus of research not only in Greece, but also abroad and exports worldwide are growing because of its uniqueness and benefits.

### Why mastic is unique?

The mastic tree grows up to 9 feet tall which takes 50 years. Mastic is the fruit of the mastic tree which grows only in Chios (Greek island). Scientists have not discovered why the mastic does not grow on any other part of the planet because the climate of the island seems to be the only reason.

Mastic appears as tears from the slits in the trunk of the tree and then falls to the soil below. The flavor is unique. To market the gum in the form we know it is carefully cleaned by hand, a time consuming and quite tedious job.

### That benefits of the mastic in antiquity:

- ❖ Since ancient times mastic became known for its distinct aroma and for its healing properties.
- ❖ Mastic is the first natural gum of the world for cleaning teeth, face and body, freshening breath and whitening teeth, but also as an ingredient in many remedies.

### ... in modern times:

- ❖ The leaves and branches of the mastic tree have beneficial effects on the body.
- ❖ Removes food debris from teeth if there is no possibility to brush the teeth after a meal and generally contributes to better oral hygiene.
- ❖ It has antibacterial and anti-inflammatory action.
- ❖ Has beneficial effect on the digestive diseases.
- ❖ 1 gram of gum a day for half a month, according to research can fight *Helicobacter pylori* which is responsible for the occurrence of gastric ulcers.
- ❖ It plays an important role in wound healing and helps skin regeneration.
- ❖ Has a protective role against the atherosclerotic process since it can "block" the oxidation of LDL cholesterol.
- ❖ Provides great beneficial effect on the hair, skin, face and body naturally and when included in cosmetic products.



(From Wikipedia, the free encyclopedia)  
[http://en.wikipedia.org/wiki/Mastic\\_\(plant\\_resin\)](http://en.wikipedia.org/wiki/Mastic_(plant_resin))

**Mastic** (**Greek**: *Μαστίχα*) is a [resin](#) obtained from the [mastic tree](#) (*Pistacia lentiscus*). In pharmacies and nature shops, it is called "Arabic gum" (not to be confused with [gum arabic](#)) and "[Yemen gum](#)". In [Greece](#), it is known as the "tears of [Chios](#)," being traditionally produced on that Greek island, and, like other natural resins, is produced in "tears" or droplets. In [Turkey](#), it is referred to as "damla sakızı", i.e. "droplet gum".

Originally a liquid, mastic is sun-dried into drops of hard brittle translucent resin. When chewed, the resin softens and becomes a bright white and opaque gum. The flavor is bitter at first, but after some chewing, it releases a refreshing, slightly pine or cedar-like flavor.

The word *mastic* is derived from the Greek verb, *μαστιχεν* "to gnash the teeth", which is the source of the English word *masticate*.<sup>[1]</sup> The word *mastic* is a synonym for *gum* in many languages.

## Commerce



A single drop of mastic hangs from the underside of this branch on a mastic tree.

Within the European Union, mastic production in Chios is granted [protected designation of origin](#). The island's mastic production is controlled by a co-operative of medieval villages, collectively known as the '[Mastichochoria](#)' (Μαστιχοχώρια), which is also located in southern Chios. There is even a small Museum of Mastic in the village of Pyrgi.

Traditionally there has also been limited production of mastic on the [Çeşme](#) peninsula, on the [Turkish](#) coast only eight nautical miles from Chios, with similar ecological conditions suitable for mastic production.<sup>[2]</sup> The Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats [TEMA](#) has been leading a project to protect the native mastic trees and to plant new ones in Çeşme peninsula to revive viable commercial production. As part of this project, which is expected to last through 2016, over 3,000 mastic tree saplings were planted between 2008 and October 2011 to over 368 acres (149 hectares) of dedicated farm land provided by the [Izmir Institute of Technology](#).<sup>[3]</sup>

The harvest takes place from the beginning of July to the beginning of October. First, the area around the tree is cleared and sprinkled with inert [calcium carbonate](#). Then, every 4–5 days, 5-10 incisions are made in the bark of each tree. The resin flows from the incisions and solidifies on the ground. The pieces of dry mastic can then be collected for cleaning and eventual sale. In addition to mastic, mastic oil is also produced.

## Imitations and substitutes

The rarity of mastic and the difficulty of its production make it expensive. As a result, imitations in the form of other resins appear in the market, sold as "mastic," such as [Boswellia](#) or gum arabic. Other trees, such as [Pistacia palaestina](#), can also produce a resin similar to mastic. Yet other substances, such as [pine](#) tree resin and [almond](#) tree resin, are sometimes used in place of mastic.<sup>[citation needed]</sup>

## Medicinal use



Mastic shrub — [Pistacia lentiscus](#)

Mastic has been used as a medicine since antiquity and is still used in traditional folk medicine of the Middle East. In ancient Greece, it was given as a remedy for snakebite, and, in India and Persia, it was used to fill dental cavities. The first-century Greek physician [Pedanius Dioscorides](#) mentions the healing properties of mastic in his book *De Materia Medica*. [Hippocrates](#) wrote that the mastic is good for prevention of digestive problems and colds, and [Galenus](#) suggested that mastic was useful for bronchitis and for improving the condition of the blood. In medieval times, mastic was highly valued by sultans' harems as a breath freshener and a tooth whitener.

Mastic contains antioxidants and also has antibacterial and antifungal properties.<sup>[4]</sup> A [Nottingham University](#) study published in the *New England Journal of Medicine* claims that mastic can cure [peptic ulcers](#) by killing *Helicobacter pylori* bacteria.<sup>[5]</sup> Other studies have indicated that mastic has only a modest ability to eliminate *H. pylori* but have also suggested that refining mastic by removing the polymer [poly- \$\beta\$ -myrcene](#) may make the active components, particularly isomasticdienolic acid, more available and effective.<sup>[6]</sup> Mastic may also have some value in preventing tooth decay<sup>[7]</sup> and gingivitis<sup>[8]</sup> as chewing mastic reduces oral bacteria.

One study found that high consumption of Chios mastic powder results in decreased levels of total serum cholesterol, LDL, total cholesterol/HDL ratio, lipoprotein (a), apolipoprotein A-1, apolipoprotein B, [ALT](#), [AST](#), and [GGT](#).<sup>[9]</sup> Mastic oil is widely used in the preparation of ointments for skin disorders and afflictions.<sup>[citation needed]</sup> It is also used in the manufacture of [adhesive bandages](#).<sup>[citation needed]</sup>

## Use in food

One of the earliest uses of mastic was as [chewing gum](#); hence, the name. Mastic-flavored chewing gum is sold in [Lebanon](#)<sup>[10]</sup> and Greece. Mastic is used in ice cream, sauces, and seasoning in Lebanon. In [Egypt](#), mastic is used in vegetable preserves, in jams that have a gummy consistency, in soups, and in the preparation of meats. In [Morocco](#), mastic is used in the preparation of smoked foods.

In [Turkey](#), mastic is widely used in desserts such as [Turkish delight](#) and [dondurma](#); in puddings such as [sütlaç](#), [salep](#), and [tavuk göğsü memelika](#), and in [soft drinks](#). It is also in [Turkish coffee](#) on the Aegean coast.

In the [Maghreb](#) countries, mastic is used mainly for [cakes](#), [sweets](#), and pastries and as a stabilizer in [meringue](#) and [nougat](#).

In [Greece](#), mastic is used in mastic [liqueurs](#) such as [Mastichato](#); in a [spoon sweet](#) known as "vanillia"; in beverages, chewing gum, sweets, desserts, and breads; and in cheese. It is also used to stabilize Turkish delight or mastic-gum ice cream. In desserts, as an ingredient of jam or cakes, mastic replaces [cornstarch](#) and [gelatin](#).

## Other uses

Mastic is used in some [varnishes](#). Mastic varnish was used to protect and preserve photographic negatives.<sup>[11]</sup> Mastic is also used in perfumes, cosmetics, soap, body oils, and body lotion. In [ancient Egypt](#), mastic was used in embalming. In its hardened form, mastic can be used, like [frankincense](#) or Boswellia resin, to produce incense.

## History

During the [Ottoman](#) rule of Chios, mastic was worth its weight in gold. The penalty for stealing mastic was execution by order of the sultan. In the [Chios Massacre](#) of 1822, the people of the Mastichochoria region were spared by the sultan to provide mastic to him and his harem. *Sakız Adası*, the Turkish name for the island of Chios, means "island of gum". The production of mastic was threatened by the [Chios forest fire](#) that destroyed some mastic groves in August 2012.

## In religion

Some scholars identify the bakha בכה mentioned in the [Bible](#) with the mastic plant. *Bakha* appears to be derived from the [Hebrew](#) word for weeping, and is thought to refer to the "tears" of resin secreted by the mastic plant.

Ancient [Jewish halachic](#) sources indicate mastic as a treatment for bad breath: "Mastic is not chewed on [shabbat](#). When [is it permissible to chew mastic on shabbat]? When the intention is medicinal. If it is against a bad odor, it is permissible."<sup>[12]</sup>

Mastic is an essential ingredient of [chrism](#), the holy oil used for [anointing](#) by the [Orthodox Churches](#).

