

**THE AMERICAN  
PHARMACEUTICAL  
ASSOCIATION**

# **Practical Guide to Natural Medicines**

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**PRIMARY NAME:**  
**PEPPERMINT**

**SCIENTIFIC NAME:**  
*Mentha x piperta* L. Family:  
Labiatae (Lamiaceae)

**COMMON NAMES:**  
Varieties include those  
commonly known as black mint  
(*M. piperta* var. *vulgaris* Sole)  
and white mint (*M. piperta* var.  
*officinalis* Sole).

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2. Leung and Foster, op. cit.
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4. Z. Ge et al., *Zhongguo Yaolixue Tongbao*, 11(4) (1995): 303-5.
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10. G. Wu et al., *Zhongguo Yaoke Daxue Xuebao*, 20(3) (1989): 147-50.
11. Leung and Foster, op. cit.

**What Is Peppermint?**

This esteemed mint-family member was born in an English field of spearmint in the 1700s; it represents a natural hybrid between spearmint (*Mentha spicata*) and water mint (*Mentha aquatica*). Peppermint sports the classic square stems of the mint family, oblong to oval leaves, and dense spikes of lilac-pink flowers that bloom in summer. Various types of peppermint are cultivated around the world. The leaves (dried and fresh) and flowering tops have been used medicinally for centuries.

An intensely spicy, cooling, and aromatic oil is extracted from the leaves and the fresh or partially dried aboveground and flowering part of the herb. In the late 1800s, chemists distilled the all-important component, menthol, from this oil (see **Menthol** for more information).

**What It Is Used For:**

In the kingdom of mints, peppermint and spearmint reign as king and queen. Both Western and Eastern cultures have long brewed teas with the peppermint leaf to treat indigestion, sore throat, nausea, colds, cancers, gas, and cramp-like stomach and intestinal discomforts. (Although spearmint contains a volatile oil that is responsible for its distinctive aroma and taste, as well as its medicinal properties, it does not contain the all-important menthol found in peppermint oil and is therefore not considered as diverse or potent an herbal remedy.) The

## PEPPERMINT (Continued)

### RATING:

1 = Years of use and extensive, high-quality studies indicate that this substance is very effective and safe when used in recommended amounts for the indication(s) noted in the "Will It Work for You?" section. However, see the warnings in the "Will It Harm You?" section.



Peppermint  
*Mentha x piperita*

English started to use peppermint medicinally and cultivate it commercially in the mid-1700s. The Americans followed close behind. The United States now grows more peppermint than any other country in the world.

Herbalists today recommend the herb internally for many of the same ailments their predecessors did. Some tout its ability to counter motion sickness, congestion, headache, heartburn, fever, and sleeplessness. It is considered a valuable antispasmodic. The leaf and extracts appear in numerous European laxatives, bile-duct remedies, and bile-stimulating formulations. For tension and weariness, many sources recommend a peppermint-scented bath. Topical formulations are suggested for inflammation and itching.

In addition to being popular as a flavoring, peppermint oil contains the medicinally active substance known as menthol and is therefore widely used as a digestion regulator, gas remedy, and antiseptic and local anesthetic agent in everything from cold and cough preparations (lozenges and syrups) to formulas for insect bites, hemorrhoids, toothaches, and musculoskeletal pain. It is being investigated as a treatment for irritable bowel syndrome. Peppermint oil also commonly appears in lotions, aromatic mists, and aromatherapy formulations.

### Forms Available Include:

- *For internal use:* A flavoring agent in candy, capsule, infusion (of dried leaves), leaves (fresh and dried), lozenge, oil, syrup, tincture. A tea made from dried peppermint leaves will not necessarily yield medicinal concentrations.
- *For external use:* Oil, ointment, tincture. The oil appears in many commercial formulations; it usually contains substantial amounts of menthol. Sometimes formulations contain extracted menthol only.

### Dosage Commonly Reported:

The dried leaf is typically taken in doses of 1.5 to 3 grams, or an infusion is made with that amount. The strength of tinctures varies considerably, and so do recommended dosages. A tincture taken in doses of 2 to 3 milliliters is typical when the ratio of peppermint to liquid is 1 to 5, and contains 45 percent ethanol. For gastrointestinal complaints and as a cholagogue (to stimulate bile production), 3 to 6 grams of the leaves is taken daily. A tea is made using 1 tablespoon (1.5 grams) leaves per cup of water and is drunk three to four times per day between meals. The essential oil is taken in doses of 0.05 to 0.2 milliliter. Enteric-coated capsules of peppermint oil are taken in doses of 0.2 to 0.4 milliliter or up to 0.6 to 1.2 milliliters a day (the enteric coating probably allows for a higher dosage than would be seen with the essential oil taken directly). For gallstones or irritable bowel syndrome, a common dosage is one to two enteric-coated peppermint oil capsules (0.2 milliliters per capsule) three times a day between meals. The undiluted oil is applied externally as a counterirritant. A few drops of the oil are used in steam inhalations.

**WARNING:** *Never ingest pure menthol;* it is poisonous and as little as a teaspoonful (1 gram per kilogram of body weight) can be fatal.

P

Peppermint

**Will It Work for You? What the Studies Say:**

The primary healing component in peppermint is its volatile oil, which contains rich stores (50 percent or more) of menthol, a crystalline alcohol with notable medicinal properties. The menthol is probably responsible for peppermint's renown as a stomach-soother and gas-reducer; studies show that it calms the smooth muscles of the digestive tract (antispasmodic) and facilitates belching.<sup>1</sup> Menthol and other components (probably flavonoids<sup>2</sup>) also stimulate the liver's production of bile, a body fluid that helps break down fats, and thus helps promote digestion.<sup>3</sup> German health authorities approve of peppermint and its volatile oil as an antispasmodic, especially for upper digestive tract conditions, and consider it effective in promoting stomach secretions.<sup>4</sup> The FDA, on the other hand, has declared peppermint oil ineffective as a digestive aid and no longer allows it to be used for this purpose in nonprescription remedies.<sup>5</sup> This decision was reportedly based on a lack of convincing evidence presented to the agency.

The FDA does, however, approve of peppermint oil as a common cold remedy, and both peppermint oil and menthol alone appear in numerous cough and throat lozenges, topical nasal decongestants, inhalants, ointments, and other formulations. Most users report a clearing of congestion in the nose and sinuses.

German health authorities endorse the use of peppermint oil for reducing the symptoms of irritable bowel syndrome, a condition characterized by colicky abdominal pain, bloating, and disturbed bowel habits.<sup>6</sup> Talk to your doctor if you are interested in using peppermint oil for this purpose.

Peppermint has proved itself as an infection fighter in various studies, possibly justifying its traditional use as a wound-healer. It demonstrates antibacterial and antiviral properties in test-tube studies. The oil not only kills numerous bacteria but fights various viruses, including the herpes simplex viruses (types 1 and 2) responsible for cold sores and genital herpes.<sup>7</sup> It has apparently not been well studied for practical treatment of these kinds of infections, however.

Menthol's analgesic and counterirritant properties are widely accepted by the medical establishment, and both menthol and peppermint oil in many cases can be expected to effectively numb pain or produce a cooling sensation on the skin that helps relieve inflammatory pain such as that caused by arthritis and tendinitis.

**Will It Harm You? What the Studies Say:**

Most adults can drink peppermint tea regularly without worrying about an adverse reaction; the relative concentration of menthol in peppermint tea is actually quite low. Most peppermint-related complaints occur when there are high concentrations of menthol or menthone in the preparation, or when products made with high concentrations of the oil, such as menthol cigarettes, are used.

Take care in giving infants or small children peppermint tea or any preparations of peppermint oil. They may be startled or even gag or choke because of the intense fragrance and the menthol. There have been reports of instant collapse in infants who have had a menthol-containing ointment applied to

their nostrils to treat cold symptoms.<sup>8</sup> Talk to a doctor before using peppermint if you suffer from a hiatal hernia, as the oil may exacerbate your symptoms.<sup>9</sup>

If you ingest peppermint oil directly in more than the typically recommended amount, you may be at risk for heartburn and acid reflux. Internal overdosage of the oil has caused dose-dependent brain lesions in rats.<sup>10</sup> If applied undiluted or in high doses, peppermint oil may irritate the skin or mucous membranes, although even recommended doses of peppermint oil or menthol can cause a rash or contact dermatitis in sensitive individuals.

Avoid all peppermint products if you are allergic to menthol, to avoid such reactions as headache, rash, and flushing.<sup>11</sup> Several sources recommend that people with gallstones either consult a doctor before taking peppermint-containing preparations or avoid them altogether.<sup>12</sup>

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