

# FENNEL, SWEET

**Latin Name:** *Foeniculum vulgare* P. Mill var. *dulce*

**Botanical Family:** Apiaceae syn. Umbelliferae

**Other Common Names:** Fenkel, Wild Fennel, Sweet Fennel

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## Extraction Information

<b>Country of Origin:</b>	France, Spain, Germany
<b>Part of Plant Used:</b>	Seeds
<b>Extraction Method:</b>	Distillation of Crushed Seeds
<b>Oil Content:</b>	1 – 4%
<b>Color of Oil:</b>	Pale Yellow, Clear

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## Blending Information

<b>Odor Description:</b>	Aniseedy, Spicy, Warm, Sweet, Licorice-like
<b>Blending Factor:</b>	3
<b>Note:</b>	Middle
<b>Energy:</b>	Cooling
<b>Blends Well With:</b>	Clary sage, Sweet Marjoram, Cardamom, Mandarin/Tangerine, Ginger, Ylang ylang, Cinnamon leaf, Coriander seed, Grapefruit, Geranium
<b>Indicated For:</b>	Sluggish, congested, or smoker's skin (can be beneficial for stimulating microcirculation and detoxification), fennel hydrosol may be utilized in compresses for conjunctivitis.

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**Safety Information:** Avoid during Pregnancy, Breastfeeding, Endometriosis, & Estrogen Dependent Cancers

**Contraindications:** Oral dosing is cautioned in conjunction with anticoagulant drugs, major surgery, childbirth, peptic ulcer, hemophilia, or other bleeding disorders.

Maximum Adult Daily Oral Dose: 73mg (approx.. 2-3 drops/day)

**GRAS status:**



## Botany:

Fennel is a tall perennial which when flowering can grow up to 6 feet. It has hollow, yet upright stems and feathery leaves which give rise to beautiful umbels of tiny, vibrant yellow flowers in the summer. The yellow flowers mature into brownish, strongly aromatic seeds. Sweet Fennel is most commonly found growing in Southern Europe.

## History + Myth

It was the Romans who gave Fennel its name 'Foeniculum' from the Latin word *foenum*, meaning hay. According to Grieve, the name was corrupted in the middle ages to Fanculum which gave rise to its more popular name, fenkel. Fennel, together with St. John's Wort, were used to protect against evil spirits and witchcraft. Fennel has been well known and well loved since ancient times and has been used to improve vision, lose weight, and promote longevity. It has also been used to provide strength and courage.

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## Therapeutic Actions

Anti-Inflammatory, Antibacterial, antifungal, antioxidant, antispasmodic, bronchodilator, carminative, detoxifier, estrogenic, emmenagogue, expectorant, digestive, galactagogue, hepatoprotective, promotes gastrointestinal motility, stomachic.

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Chemical Feature:	Core Aromatic Applications:										
<h3>Chemical Composition</h3> <p>General Chemical Composition of <i>Foeniculum vulgare var. dulce</i></p> <table border="1"><thead><tr><th>Chemical Family</th><th>Specific Components</th></tr></thead><tbody><tr><td>Monoterpenes</td><td><math>\alpha</math>-phellandrene (1.29%), <math>\alpha</math>-pinene (8.30%), <math>\beta</math>-myrcene (0.26%), <math>\beta</math>-phellandrene (0.21%), <math>\beta</math>-pinene (0.18%), <math>\gamma</math>-terpinene (0.13%), d-limonene (8.70%), p-cymene (0.12%)</td></tr><tr><td>Aldehydes</td><td>anisaldehyde (0.18%)</td></tr><tr><td>Ketones</td><td>fenchone (2.81%)</td></tr><tr><td>Phenylpropanoids</td><td>trans-anethole (73.83%), methyl chavicol (4.59%)</td></tr></tbody></table> <p><a href="http://www.stillpointaromatics.com/fennel-essential-oil?keyword=fennel">http://www.stillpointaromatics.com/fennel-essential-oil?keyword=fennel</a></p>	Chemical Family	Specific Components	Monoterpenes	$\alpha$ -phellandrene (1.29%), $\alpha$ -pinene (8.30%), $\beta$ -myrcene (0.26%), $\beta$ -phellandrene (0.21%), $\beta$ -pinene (0.18%), $\gamma$ -terpinene (0.13%), d-limonene (8.70%), p-cymene (0.12%)	Aldehydes	anisaldehyde (0.18%)	Ketones	fenchone (2.81%)	Phenylpropanoids	trans-anethole (73.83%), methyl chavicol (4.59%)	<p><b>Digestive system:</b> colic, indigestion, excess gas, constipation, irritable bowel syndrome, nausea, lack of or decreased appetite, abdominal pain, indigestion, nonspecific colitis</p> <p><b>Musculoskeletal system:</b> muscle spasms or cramps, general muscular aches and pains</p> <p><b>Reproductive/Endocrine system:</b> balancing to hormones, PMS, dysmenorrhea, amenorrhea, lack or reduced sexual drive, lack of or reduced milk flow in lactating women (fennel tea is indicated or inhalation of fennel EO), cramps</p> <p><b>Respiratory system:</b> bronchitis, coughs, flu</p> <p><b>Skin:</b> sluggish, congested, or smoker's skin (can be beneficial for stimulating microcirculation and detoxification), fennel hydrosol may be utilized in compresses for conjunctivitis</p> <p><b>Psyche &amp; Emotion:</b> feelings of being stuck, unexpressed thoughts or emotions, tension, fear or inhibition of expressing self, creative blocks</p> <p><b>Subtle/Energetic Aromatherapy:</b> As a seed oil, fennel contains the energy of potential and creativity. In TCM, fennel regulates the action of Qi-energy in the stomach and intestines and is invigorating to Qi-energy in the kidneys and spleen. Fennel is indicated for emotional and mental blocks, inability to adjust, and feelings of boredom. Fennel can be useful for enlivening, motivating, and fortifying as well as enhancing confidence and assertiveness.</p>
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**Ayurveda:** The seeds, according to Ayurveda, are sweet and pungent in taste, cooling, and are good for all doshas: vata, pitta, and kapha. In Ayurvedic medicine fennel seeds are used to support digestion, strengthening Agni without aggravating Pitta. Like its Western herbal applications, fennel is used to stop cramping and dispel flatulence (gas). Fennel seed preparations are indicated for digestive weakness.

**In Ayurvedic medicine Fennel is indicated for:** Digestive discomfort, flatulence, cramps, nausea and low agni. A specific for inguinal hernias and lower abdominal pain. It is also indicated for nervous tension in mamsa dhatu and contraction in the smooth muscle system restricts the flow of vata. It has a nourishing effect on majja dhatu tonifies the brain and

nervous system. Fennel is useful in vata-kapha obstruction type coughs and helps to clear phlegm by reducing aggravated avalambaka kapha that congest the alveoli and bronchioles. Useful in menstrual difficulty caused by vata and kapha obstruction in the lower abdomen with pain, cramps, and a dragging sensation.

**Traditional Chinese Medicine (TCM):** In TCM, fennel spreads liver qi, warms the kidneys, expels cold and alleviates pain thereby treating lower abdominal pain. May also be combined with cinnamon bark or litchi nut. Regulates qi and harmonizes the stomach to treat indigestion, abdominal pain, reduced appetite and vomiting due to cold. Combine with ginger for stronger effect.

**Keywords:** Strong affinity with the digestive system, menstrual imbalances, menstrual cramps, inability to 'digest' ones experiences

## Research/ Additional Notes:

- Fennel has anti-inflammatory activity
- Fennel exhibits antibacterial activity. It is concluded that *F. vulgare* seed extracts and oil are rich in trans-anethole and other compounds and are effective against *C. albicans*, *E. coli*, and *P. putida* and other similar organisms. Therefore *F. vulgare* seed extracts and oil are valuable not only for increasing shelf life of foodstuffs but it could be a future target for replacing synthetic antibacterial agents.
- Fennel Exhibits antioxidant activity. Essential oils of fruits of three organically grown cultivars of Egyptian fennel (*F. vulgare* var. *azoricum*, *F. vulgare* var. *dulce*, and *F. vulgare* var. *vulgare*) were reported to possess antioxidant activity.
- Fennel demonstrated hepatoprotective activity. The results of this study clearly indicate that *F. vulgare* EO has a potent hepatoprotective action against carbon tetrachloride-induced liver fibrosis in rats.
- Fennel exhibits antimycobacterial and anticandidal activity. Our results showed that essential oils from dill and fennel seeds had considerable antimycobacterial and anticandidal properties.
- Fennel exhibits gastroprotective, vasorelaxant and antithrombotic activity.
- Fennel exhibits antispasmodic activity. *F. vulgare* may be used for abdominal spasms.
- Fennel reduces uterine contractions and may be beneficial for dysmenorrhea.
- Fennel proves beneficial for the treatment of dysmenorrhea. In study group a capsule of 30mg fennel EO, 4x/day for three days from start of their menstrual period and in placebo a capsule containing wheat flour in same dose was administered. Based on the observations, it can be concluded that, fennel is an effective herbal drug for menstrual pain.