

GINGER

Latin Name: *Zingiber officinale*

Botanical Family: Zingiberaceae

Other Common Names: Garden Ginger

Extraction Information

Country of Origin:	Sri Lanka, China, India, Nigeria
Part of Plant Used:	Rhizome – Unpeeled rhizome will result in higher oil yield
Extraction Method:	Distillation
Oil Content:	1.5% - 3%
Color of Oil:	Clear to Light Amber

Blending Information

Odor Description:	Warming, Spicy
Blending Factor:	4
Note:	Base
Energy:	Warming
Blends Well With:	Neroli, Clove bud, Black Pepper, Rose (<i>Rosa alba</i>), Turmeric, Angelica root, Spikenard, Cardamom, Clary sage, Mandarin

Safety Information: None

Contraindications: People with gallstones should avoid ginger due to cholagogues effects.
People taking blood thinners or susceptible to hemorrhage should limit doses to less than 4 grams
Avoid for Yin deficiency with heat signs; reckless movement of hot blood
Use low dosages during pregnancy

GRAS status:

Botany:

Zingiber officinale is an erect, leafy perennial that grows to about 1m, and is usually cultivated as an annual. It has green reed-like stalks, with narrow spear shaped leaves, white, yellow, or purple orchid like flowers, and a robust branched rhizome growing horizontally near the soils surface. The rhizome is firm and can grow to 6 – 20 cm depending on the cultivar. The skin color varies from buff to very dark brown, almost black; and the flesh color from pale yellow to deep orange red. Ginger likes water, humidity, and heat, and is grown commercially in many tropical climates. It is native to India and China.



History + Myth

Ginger has been highly prized for its medicinal properties since ancient times. The Greeks, Romans, and Arabs have all utilized ginger for medicinal purposes. For thousands of years, Traditional Chinese medicine has employed fresh and dried ginger for the treatment of fevers, cough, and nausea. Ginger spread to Europe during the Middle Ages and is said to have been used to combat the Black Death due to its ability to make a person sweat.

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Therapeutic Actions

Analgesic, antibacterial, **anti-emetic**, **antispasmodic**, aperitif, **aphrodisiac**, **carminative**, **digestive**, expectorant, febrifuge, rubefacient, stimulant, **stomachic**, sudorific

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Chemical Feature:

Rich in Sesquiterpenes with support from monoterpenes and non-irritant aldehydes.

Chemical Composition

General Chemical Composition of *Zingiber officinale* essential oil

Chemical Family	Specific Components
Monoterpenes	α -phellandrene (0.25%), α -pinene (2.20%), β -myrcene (0.89%), β -phellandrene (7.00%), β -pinene (0.28%), camphene (6.55%), d-limonene (1.33%)
Sesquiterpenes	α -copanene (0.45%), α -curcumene (4.16%), α -trans-bergamotene (0.12%), α -zingiberene (27.84%), β -bisabolene (8.05%), β -curcumene (0.63%), β -sesquiphellandrene (14.17%), (E) α -farnesene (5.07%), all-aromadendrene (0.31%), bergamotene isomer (0.24%), cadinene (0.24%), chamigrene isomer (0.26%), cyclosativene (0.30%), epi- α -selinene (0.63%), farnesene isomer (0.34%), germacrene D (1.42%)
Monoterpene Alcohols	α -terpineol (0.43%), borneol (0.78%), citronellol (0.54%), geraniol (0.12%), linalol (0.29%)
Sesquiterpene Alcohols	elemol (0.28%), sesquiphellandrol isomer (0.26%), trans-nerolidol (0.39%), zingiberol (0.21%)
Aldehydes	decanal (0.10%), geranial (2.01%), neral (1.17%)
Ketones	camphor (0.11%), zingerone (0.20%)
Esters	sesquisabinene hydrate (0.43%)
Oxides	1,8-cineole (0.18%)

<http://www.aromaticsinternational.com/ginger106?keyword=Ginger>

Core Aromatic Applications:

Circulatory system: poor circulation, cold hands or feet

Digestive system: stomachache, nausea, vomiting, morning sickness, excess gas, constipation or diarrhea, postoperative or drug-induced nausea,(1) loss of appetite

Lymph/Immune systems: Fever (tincture or CO2 extract)

Musculoskeletal system: muscular aches and pains, arthritis, sprains, rheumatism, joint pain and stiffness

Nervous system: nervous exhaustion, debility, neuralgia

Reproductive/Endocrine system: lack of or reduced sex drive, impotence, menstrual cramps and pain, pregnancy nausea (inhalation), amenorrhea and dysmenorrhea (2)

Respiratory system: catarrh, bronchitis, congestion, sinusitis, sinus headaches, sore throat, colds, fevers, common cold

Psyche/ Emotion: indecision, confusion, promotes greater clarity, boosts confidence, self-empowering, grounding, strengthens the will, loss of motivation, psychic burnout caused by chronic stress, can aid memory.

Brings energy and strength to some of the deepest sources of our power, it is an ally in the process of self-empowerment giving us strength to meet life's challenges with an adequate vital response. (3) Ginger promotes clarity by 'detoxing' negative or toxic thoughts and energy. Ginger's warm spicy sweet aroma offers the individual strength during times of depletion, lack of direction, sexual frigidity or loss of motivation. As a root EO, ginger is also grounding and provides strength to move forward. It is indicated for: sexual anxieties, lack of direction, lack of focus, apathy, feelings of loneliness, and resignation. (4)

Subtle/Energetic Aromatherapy: Ginger can be used as an emotionally warming oil and is indicated for sexual anxieties, lack of direction, lack of focus, apathy, loneliness, and resignation. (5)

Ayurveda: Ginger is the universal medicine and can be of benefit to all. It is specifically indicated for vata disorders. Ginger destroys toxins, is a digestive, prevents nausea, enkindles the digestive fire, reduces feelings of cold, is rejuvenating, alleviates cough and breathing difficulties, and alleviates pain. Dried Ginger = Sunthi, Fresh Ginger = Ardraka

- Dry Ginger clears ama from plasma and blood, clears phlegm in kapha-vata coughs and colds, increases agni and the secretion of digestive enzymes, and is more heating than fresh ginger and hence can aggravate pitta.

- Fresh ginger increases peripheral circulation and causes vasodilation and sweating.
- Useful for nausea including morning sickness, post-operative nausea, and travel sickness.
- Fresh ginger hot tea can be used to relieve menstrual cramps

Traditional Chinese Medicine (TCM): Both fresh and dried ginger are official drugs of the modern Chinese pharmacopeia. It is one of the most widely used medicinal herbs and is believed to be used in half of all herbal prescriptions in modern China. TCM distinguishes clearly between dried and fresh ginger. Dried ginger (Gan-jiang) is used to treat yang deficiencies. 'It is more effective in expelling Interior Cold, which is related more to the constitution of the patient while fresh ginger (Sheng-jiang) promotes seating and disperses Exterior Cold which is brought on by external factors.' (6)

- Fresh ginger root is used to dispel pathogens via its ability to induce sweating. It expels cold, relieves nausea and clears toxic matter from the body. It is used from common colds due to pathogenic Wind Cold.
- Dried ginger root is used to treat depleted Yang and alleviates Cold conditions characterized by pallor, poor appetite and digestion, vomiting, cold limbs, pale tongue, or thin, watery, or white sputum. (7) Use for Yang exhaustion syndromes with severe chilliness, slow pulse, and aching.

According to Peter Holmes, the essential oil of Ginger warms the interior and dispels cold. It warms the Lung and transforms phlegm, warms and opens the meridians and blood vessels (indicated for scanty menstrual flow, amenorrhea, spasmodic dysmenorrhea) and Warms the Kidney and fortifies Yang (indicated when there is frigidity, impotence, cold extremities, fatigue, or diarrhea). Ginger stimulates and tonifies the yang energy of the spleen, stomach, heart, lung, and kidneys. (8)

Ginger can be a catalyst of the Will (Zhi), invoking and enhancing one's vital fire. (9)

Keywords: Analgesic, warming, affinity with the digestive system.

Research/ Additional Notes:

- Ginger (*Zingiber officinale*) exhibits antifungal and moderate antioxidant activity. (10)
- Ginger (*Zingiber officinale*) exhibits antispasmodic activity. (11)
- Ginger (*Zingiber officinale*) exhibits immunomodulatory effects.
These results suggest that the volatile oil of ginger influences both cell-mediated immune response and nonspecific proliferation of T lymphocyte, and may exert beneficial effects in a number of clinical conditions, such as chronic inflammation and autoimmune diseases. (12)
- Ginger (*Zingiber officinale*) exhibits antibacterial activity. (13)

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