

Lavendula spp.

Other common names: Lavender, nard, nardus, spike, spikenard. The word nard, comes from the Greek word for lavender 'nardus' and refers to the Syrian city of Naarda.¹

Family: Lamiaceae

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Parts used: Flowers, harvested before the petals open.

Botanical description: With lavender it is somewhat hard to accurately identify which species is the original species due to its extensive past as a cultivated and hybridized plant. *Lavendula angustifolia* is generally established as the true lavender.²

Lavendula angustifolia, called common lavender or English lavender, is a low perennial shrub that grows 2 to 3 feet tall. The stems of the plant are low, many-branched, and woody, coming to a crook where it extends the young flowering stalks. The leaves extend from the lower part of the branches, and when fully grown can reach up to 2½ inches. The leaves are a soft dusky green, pubescent, entire, sessile, linear, and arranged oppositely on the stem.³ The inflorescence extends with a bare quadrangular peduncle, to a one inch long spike of soft dusky purple (lavender) colored flowers. The five petaled flowers are irregular, arranged oppositely or in whorls along the spike in pairs or up to ten in a cluster. The calyx of the flowers contain glands where most of the volatile oil is found. The main differences between species and cultivars is the flower color and the bracts. The color of the flowers ranges from white (*L. angustifolia* var. 'white nana') to deep violet (*L. stoechas* and *L. angustifolia* var. 'Hidote'), and bract color and size, (*L. angustifolia* has small brown bracts on each flower, whereas *L. stoechas* has long “butterfly” (houdret) bracts that reach out of the top of the spike to attract pollinators).^{2,3}



Lavendula stoechas



Lavandula angustifolia Mill.

Habitat: Lavender is originally Native to the Mediterranean and middle east, but is so popular it is now cultivated worldwide.² France is particularly known for its lavender fields.



Taste: Sweet, floral, green, fruity, bitter and slightly astringent
Organoleptic observations of a hot infusion of dried organic

Lavendula angustifolia flowers: When you pour hot water over lavender flowers the water turns a clear blue color, though after ten minutes steeping it resolves into a pinkish brown. The smell wafting from the cup is floral and fruity and gives you that joyful uplifting feeling that is characteristic of lavender. Its flavor notes include: sweet, floral, green, fruity, bitter and slightly astringent. The high essential oil content makes the taste overpowering and after drinking an entire cup of the tea is numbing to the tongue, cheeks and throat.

Energetic properties: Cooling, grounding, uplifting, calming

At the same time as giving you an upward lift, a low floral note gives a grounded feeling, as if lavender can take you into the clouds while keeping your feet on the ground. This dichotomy is seen in several aspects of lavender; for while it is gentle on people, it can kill bacteria. Many sources say it has been used as an aphrodisiac, but at the same time its used to keep young girls chaste, or even as an

anaphrodisiac. ⁴ This apparent contradiction in use, while intellectually confusing, for some reason makes perfect sense once you smell it, for it is calming and stimulating at the same time.

Magical properties: Love, protection, sleep, chastity, longevity, purification happiness and peace. ⁵

Doctrine of Signatures: Much about this plant is uplifting, from its posture to its scent.⁶ Lavender's purple colored flowers reflect the herbs work with the head, purple being the color of the pineal chakra. This may indicate its use for headaches and its nervine effect. The tiny flowers reach toward the sky with determination telling us to look upward and feel joy.



Scientific Summary Section:

Constituents: Volatile oils, coumarins, triterpenes, phenols, tannins and flavonoids

Actions: Carminative, spasmolytic, relaxing nervine, anxiolytic, antidepressant, rubefacient, emmenagogue, hypotensive, anti-inflammatory, stomachic

Constituents: Volatile oil (borneol, caryophyllene, cineol, geraniol and its esters, lavandulyl acetate, linalool, linalool acetate, linalyl acetate, linalyl butyrate, limonene, pinene, rosmarinic acid,); coumarins (coumarin, herniarin,umbelliferone); triterpenes (e.g. ursolic acid), flavonoids (e.g. luteolin) and some tannins.^{7,8,9}



Pharmacodynamics: The volatile oils of lavender are abundant and account for most of the actions that lavender is associated with. Linalool, the second most abundant volatile oil in the plant, is antiseptic and fungistatic and has been linked with lavender's sedative properties.^{8,9} Limonene also displays sedative actions and has demonstrated antineoplastic properties in both pancreatic and breast cancers, and has been shown to dissolve gall stones.⁸

Lavender also contains flavonoids; for instance the flavone luteolin. Coumarins can also be found in lavender, which may explain some of lavender's actions in increasing circulation to the head, since coumarins can reduce edema by decreasing capillary permeability.¹⁰ Coumarin itself has antifungal and antitumor properties. Lavender is used for healing minor burns and the coumarin umbelliferone has the ability to absorb many wavelengths of UV light. This could help explain a protective aspect of why lavender is so helpful with burns.⁸

Triterpenes act as emulsifiers and are also classified as saponins. Saponins work by making other compounds more easily assimilated by the body, and help fats to be digested by creating mycelles. This may explain some of lavender's digestive properties.¹⁰

Pharmacokinetics: Volatile oils are lipophilic molecules that are easily assimilated into the body and readily absorbed through the skin. Linalool, cineol, geraniol, and borneol are alcohol terpenoids, and limonene, caryophyllene, and pinene are monoterpenes; they are all small, lipophilic and highly volatile making them extremely easy to absorb. Triterpenes are saponins and have an emulsifying action. This could be linked to some of lavender's digestive aiding abilities. Coumarins are easily absorbed through the GI tract, however they are less than 4% bioavailable due to first-pass hepatic metabolism which

breaks them down. Flavonoids have a double antioxidant affect, first by binding to free radical, and second by stimulating the bodies own free radical waste removal systems to function better.¹⁰ Luteolin is a flavone found in lavender and has this antioxidant affect. Tannins are not highly bioavailable, have minimal absorption, and mostly have action on cells that come in contact with them by binding to proteins.



Indications and effects: It is hard to separate out lavender's actions on the body because they all seem to be interrelated. Lavender works on the brain first for that is where our bodies first react to it, through the olfactory system. Lavender's volatile oils penetrate the nasal membranes and act on our brain immediately in many ways. These actions include the relieving headaches, helping us relax, whether for sleep or from stress, relief of anxiety, lifting moods and even bringing some people out of depression. Lavender seems indicated for people who are anxious and tense; Culpepper mentions its use for people with convulsions, palsy, trembling and cramps, indicating its affect to relax the nervous system.¹¹ Tilgner mentions that it's used for people who are "stammering and [have] symptoms due to nervousness related to lack of circulation to the brain."¹²

The essential oils of lavender also can relieve pain, as in rheumatism; itchiness, notably mosquito bites; and help the healing of burns when applied topically. Topical applications can also have the effects on the nervous system as listed above since volatile oils can be absorbed through the skin. A very common use of lavender is to add the essential oil extract to the bath water. In fact lavender's name stems from the Latin '*lavare*' meaning 'to wash' or 'to bathe'. This may in fact mean the ancients knew that it helps keep infections away as lavender is antimicrobial, especially in its essential oil form. Lavender can also treat head lice, applied directly on the scalp and hair, in both the simple water extractions as well as the essential oil form.. Lavender can also be used as a carminative and digestive as it relaxes the smooth muscles of the gastrointestinal tract, stopping the muscles from cramping around gas and allows resetting of peristalsis.

Lavender's actions on the circulatory system can be partly thanks to coumarins, since they act by reducing capillary permeability. This effect may lend lavender's actions as a headache reliever since it could relieve pressure in the blood vessels of the head. One other common use found for lavender was for people who have lost their voice. This may be due to its tannins which are astringent, or could be another action of its many volatile oils, which have such a broad range of actions that are still vastly unexplored.^{7,11,12}

Safety/Contraindications: Lavender in general is considered a very safe plant with a few cautions. Bone states a few reports of gastritis if excessive amount, well beyond the dosages listed below.⁷ Sharol Tilgner cautions of its use during pregnancy due to its emmenagogue action.¹² However I would think that considering the gentle nature of the herb that this is an exaggerated caution, except in cases where a miscarriage is a high risk. Lavender is high in volatile compounds and cause extreme allergies in some people. The only other caution attached to this herb is the general warning about using essential oils internally, since they are highly potent extracts and in some cases can be toxic.



Classic formulas: “A Decoction made with the Flowers of Lavender, Horehound, Fennel, and Asparagus Roots, and a little Cinnamon is very profitably used to help the Falling-sickness, and the giddiness or turning of the Brain.” Nicolas Culpepper, *The English Physitian*¹¹

Combinations: Lavender (*Lavendula angustifolia*) and Oat pods (*Avena sativa*) combine as a relaxing nervine tea. Both plants display a relaxing effect on the nervous system. The oats lend a demulcent counterpart to the slight astringency of the lavender, and also balance the strong taste of lavender. This would be an excellent remedy for children who cannot sleep.



Preparations and doses: Hoffman: 1 cup boiling water to 1 tsp. Dried herb infused for 10 minutes covered. Take 3 times a day. Essential oil should not be taken internally.⁸
German Commission E: 1 to 2 tsp. Of herb per cup of water 1 to 4 drops of essential oil.⁸
Bone: per day 2.0-4.5ml of 1:2 liquid extract, per week 15-30ml of 1:2 liquid extract⁷
Tilgner: infusion 1-2 tsp per cup of water, or 1:5 drying liquid extract 10-30 drops 1-4 times per day in a little water.¹²
Micheal Moore: Flowers: Standard Infusion, 2-3 ounces to 4X a day. Essential oil: 5-10 drops in capsule, with food.¹³

Ecological Issues: This plant is so widely cultivated and beloved by gardeners and herbalists alike it isn't in any danger of dying out. Lavender is a good plant to have in the garden because it can help keep insects away from neighboring plants.

Personal experiences: Thinking of lavender lifts my heart and brings back years of memories. I use lavender a lot in my daily life. Lavender was the first essential oil I ever bought, and I always keep some on hand. I have fought off the itch of mosquito bites, have healed sunburns and battled seasonal depression with equal success with just a few drops of the oil. But my favorite and most uplifting remedy has been the consumption of the wonderfully addictive lavender sugar cookies which I try to make right after a good lavender harvest in early July. I have many sweet memories of bees buzzing around my head as I harvested the flowers, and they harvested the nectar and pollen off the same bush in my mothers front yard.

Lavender Cookies

5/8 Cup Butter
1/2 Cup Granulated Sugar
1 egg, beaten
1 Tbsp. dried lavender flowers
1&1/2 Cups Flour

Preheat oven to 350 degrees.
Cream butter with sugar. Add beaten egg. Mix in flour and flowers.
Spoon onto greased cookie sheets.

Bake 15-20 min. Makes about 15 cookies.

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