

Lavender SAP

Science-based lavender oil for stress and anxiety relief and sleep support

Lavender (*Lavandula angustifolia*) has been traditionally used in herbal medicine for centuries for its anxiolytic and calming properties. Lavender essential oil for oral supplementation is obtained from steam distillation of the flowering tops of *L. angustifolia*. Containing more than 160 different substances, the anxiolytic effects of lavender oil are attributed to the active ingredients linalool and linalyl acetate. Recently, several clinical trials have substantiated the efficacy of oral supplementation with lavender oil at a dose of 80 mg once daily for symptoms of anxiety, depression, restlessness, agitation, and disturbed sleep.

ACTIVE INGREDIENTS

Each softgel contains:

Organic lavender (*Lavandula angustifolia*) essential oil 80 mg

Other ingredients: Organic olive oil and vitamin E (D- α -tocopherol; from non-GMO sunflower) in a softgel made of annatto extract (in sunflower oil), bovine gelatin, glycerin, and purified water.

This product is non-GMO.

Contains no: Gluten, soy, wheat, corn, eggs, dairy, yeast, citrus, preservatives, artificial flavour or colour, starch, or sugar.

Lavender SAP contains 60 softgels per bottle.

DIRECTIONS FOR USE

Adults: Take 1 softgel daily with food and a full glass of water or as directed by your healthcare practitioner.

INDICATIONS

Lavender SAP can be used:

- For the relief of stress, exhaustion, anxiety and depression symptoms.
- To help relieve restlessness and agitation.
- To improve sleep.

SAFETY, CAUTIONS, AND WARNINGS

Consult a healthcare practitioner prior to use if you are taking prescription medications. Consult a healthcare practitioner if symptoms persist or worsen. May impair ability to drive and use machines; affected patients should not drive or operate machinery. Do not use if you are pregnant or breast-feeding. Hypersensitivity (i.e. allergy) may occur; in which case, discontinue use. Lavender burps have been reported in a small number of users and are a normal effect of the product.

PURITY, CLEANLINESS, AND STABILITY

All ingredients listed for all **Lavender SAP** lot numbers have been tested by a third-party laboratory for identity, potency, and purity.



Scientific Advisory Panel (SAP):
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Anxiety, insomnia, and major depression are among the most prevalent mental disorders in Western societies.^[1] In patients with major depressive disorder, 80–90% experience symptoms of anxiety, 80% suffer from insomnia and sleep disturbances, and 25% report psychomotor agitation—symptoms all linked to increased risk of suicidal tendencies.^[2]

Lavender (*Lavandula angustifolia*) has been used for centuries as a medicinal plant with relaxing, calming, and mood-alleviating effects.^[3] Lavender oil is produced from the flowering tops of *L. angustifolia* via steam distillation. Containing more than 160 different substances, the main constituents of lavender oil are linalool, linalyl acetate, 1,8-cineole, β -ocimene (both *cis*- and *trans*-), terpinen-4-ol, and camphor.^[4] The anxiolytic effects are attributed to the active ingredients linalool and linalyl acetate. Mechanistically, lavender oil exerts effects on the GABA_A receptor and inhibits the presynaptic calcium channels.^[5] In addition, the main active ingredient, linalool, inhibits acetylcholine release, inhibits glutamate binding in the brain, and influences ionic conductance in neurons.^[6–8] Currently, much clinical research surrounds the efficacy of lavender oil supplementation as compared to synthetic drugs.

LAVENDER OIL FOR ANXIETY

In a randomized, double-blind, double-dummy trial of 539 adults with generalized anxiety disorder, the effects of supplementing 160 or 80 mg lavender oil, 20 mg paroxetine, or placebo once daily were investigated using the Hamilton Anxiety Scale (HAMA) total score.^[9] After 10 weeks, supplementation with 160 and 80 mg/d of lavender oil was most effective in reducing the HAMA total score as compared to placebo ($p < 0.01$). Moreover, a reduction in the HAMA total score by $\geq 50\%$ from baseline was observed in 60.3% of patients in the 160 mg/d lavender oil group, 51.9% of patients in the 80 mg/d lavender oil group, 43.2% in the paroxetine group, and 37.8% in the placebo group. In a previous randomized controlled trial by Kasper et al., supplementation of 80 mg/d of lavender oil reduced HAMA total score by 16.0 ± 8.3 , corresponding to HAMA $\geq 50\%$ reduction in 76.9% of patients ($n = 104$) as compared with a 9.5 ± 0.1 or 49.1% reduction in the placebo group ($n = 108$).^[10]

Researchers report comparable effects between lavender oil (80 mg/d) and starting dose of lorazepam (benzodiazepine) (0.5 mg/d) in patients with generalized anxiety disorders, decreasing HAMA total score similarly by 45% and 46%, respectively, as well as somatic anxiety and psychic anxiety from baseline.^[11] In addition, at the end of this six-week study, 40% of the lavender oil group and 27% of the lorazepam group were in remission. The lavender-oil group had a response rate of 52% compared to only 40% in the lorazepam group.

A review of seven clinical trials reported that supplementation of 80 mg/d lavender oil is effective for patients with subsyndromal anxiety or generalized anxiety disorder, decreasing HAMA total scores between 10.4 ± 7.1 and 12.0 ± 7.2 points at six weeks of supplementation, and between 11.8 ± 7.7 and 16.0 ± 8.3 points at 10 weeks.^[3,10]

LAVENDER OIL FOR SLEEP AND RESTLESSNESS

Using a randomized, placebo-controlled trial, the anxiolytic effects of lavender oil (80 mg/d) supplementation in 170 outpatients with anxiety-related restlessness and disturbed sleep was investigated.^[12] Patients with clinical psychiatric or neurological disorders were excluded from the study. After 10 weeks, lavender-oil supplementation significantly reduced restlessness as compared with placebo, effects particularly pronounced in patients with high restlessness symptoms at baseline.

In addition to anxiolytic effects, it was observed that supplementation with 80 mg/d of lavender oil for six weeks effectively prolonged total sleep time as well as reduced the latency to fall asleep and the waking-up duration, effects comparable to that of lorazepam.^[11] In addition, a retrospective case series study on the use of *Lavandula* oil capsules (80 mg/d) observed an improvement in sleep onset and sleep maintenance insomnia in three of eight patients with major depressive disorder compared to no effect in other patients.^[2]

LAVENDER OIL FOR DEPRESSION

Patients with major depressive disorder frequently experience symptoms of anxiety, psychomotor agitation, and insomnia or sleep disturbances.^[2] Using a retrospective case series study design, the use of *Lavandula* oil capsules (80 mg/d) was investigated in patients with major depressive disorder and symptoms of psychomotor agitation, insomnia, and anxiety.^[2] In six of eight patients, a reduction in major mental depression, measured by the Hamilton Rating Scale for Depression (HAM-D)-17, total score was observed within three weeks supplementing *Lavandula* oil in addition to antidepressant therapy. Researchers also reported a reduction in restlessness and agitation during the acute treatment period.

In a randomized, double-blind, placebo-controlled trial, supplementation with both 80 mg/d ($n = 133$) and 160 mg/d ($n = 119$) of lavender oil for 10 weeks had a pronounced antidepressant effect, significantly improving patient's mental health as assessed by the HAM-D compared with placebo ($n = 134$).^[9] There was no difference on HAM-D measures between the lavender oil groups and the paroxetine group ($n = 130$). In addition, both dosages of lavender oil improved health-related quality of life and had a profound beneficial effect on depressive comorbidity as compared with placebo.

LAVENDER OIL SAFETY AND ADVERSE EVENTS

Whereas sedating side effects are common with synthetic anxiolytic drugs including benzodiazepines and selective serotonin reuptake inhibitors (SSRIs), lavender oil (80 mg/d) is well-tolerated and has calming, anxiolytic, and sleep-supporting effects without causing sedative adverse effects.^[3, 12] In studies, both 160 and 80 mg/d side effects from lavender oil were comparable to placebo, and lower than those of the drug paroxetine.^[9] Aside from potential mild gastrointestinal symptoms and reflux, supplementation of lavender oil at daily doses of 80 or 160 mg was devoid of adverse effects and not associated with withdrawal symptoms, contraindications, or drug interactions.^[3]

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