



ISSN: 2456-0057

IJPNPE 2019; 4(1): 1274-1277

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www.journalofsports.com

Received: 04-11-2018

Accepted: 05-12-2018

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## Health benefits of lavender (*Lavandula angustifolia*)

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**Abstract**

Lavender essential oil is a very popular and a very effective medicine in its own right and as an additive over the counter as well as it is used in cosmetic products as well. The lavender oil is believed to be have sedative, carminative, ant depressive and anti-inflammatory properties. Along with this it has antimicrobial effects also. Lavender have also many health benefits also which has been described in the context.

**Keywords:** Benefits of Lavender, *Lavandula angustifolia*

**Introduction**

Lavender (*Lavandula angustifolia*) is an herb that is grown in northern Africa and the Mediterranean mountains, and often used extraction of its essential oils. It is also grown for the production of its essential oil, which comes from the distillation of the flower spikes of certain lavender species. The lavender oil has cosmetic uses, and it is also believed to have some medicinal uses. The medicinal benefits of using lavender is used to treat anxiety, fungal infections, hair loss, and wound. Lavender is not used to treat depression, high blood pressure, nausea, menstrual pain, or eczema, and among other conditions. This herb is not approved by the Food and Drug Administration (FDA) and should not be taken in place of approved and prescribed medicines. The herb lavender is highly regarded for skin and beauty and also used in fragrance and shampoos for purification of the skin.it can be purchased from the drug store counter. Some versions of lavenders are used to add flavours to baked goods and foods. This herb also contains many medicinal properties.

Lavender oil is essential oil distilled from lavender flower, it has an anti-inflammatory, antiseptic, antibacterial, antifungal antimicrobial, antidepressant properties. This herb stimulates urine production and improves digestion, reduce emotional stress and anxiety, this herb heal burn and wound and improve sleep, improves eczema and psoriasis, reduce acne and store skin complexion. Lavender is also used in aroma therapy.

It is an aromatic plant in the limacine family. Essential oil, aqueous extracts and dried part of these plant are used in cosmetics, hygiene products and traditional medicines. They are also used as food additives due to their pleasant flavours and aroma and also, they are antibacterial, antifungal and insect repellent, insecticidal, and antioxidant properties.

The most common lavender English lavender is the most common species of lavender used along with other spices. Lavender herb is cultivated around the world and the fragrant oils of its flowers are used in aromatherapy, backed goods, candles, cosmetic, detergents, jellies, massage oils, perfumes, powder, shampoo, soaps and tea. The other species of lavender are *Lavandula burnamii*, *L. dhofarensis*, *L. latifoliolate*, and *L. stoechas*. Lavender is rich in volatile oils and are have a fragrance effect and medicinal effect. Lavender have alleged soporific properties the linen bags containing lavender flowers were commonly placed under the pillow. Lavender herb is comprised of over 100 constituents including linalool, Perilya alcohol, linalyl acetate, camphor, limonene, tannins, triterpenes, cineole and flavonoids. Lavender herb has also cytotoxic properties. A constituent of lavender has caffeic acid has been demonstrated to possess antioxidant effect *in vitro*. Lavender oil is quickly absorbed by the skin. Lavender is also known for the healing agent. Lavender is aromatic shrub growing to 1-2 m tall. The leaves are evergreen and 2-6 cm long and 4-6 mm broad. The flowers are pink and purple with spikes 2-8 cm long at the top.

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Lavender is popular for its colourful flower fragrance and it can survive with low water consumption. It does not grow in damp soil. Lavender is also used as herbal tea. Lavender is also used in wound healing.

Essential oil of lavender is produced usually by steam distillation from the flower heads and foliage. The various lavender has ethnobotanical properties and major chemically constituents. Lavender flower has an active principle responsible for pharmacological properties, and are volatile oil and hydroxycinnamic acids, especially Rosmarinus and chlorogenic acids, both are found in a very good amount in this herb.

It has been reported that lavender oil has an effect with concentration dependent decreases rat hemidiaphragm contractile forces caused by phrenic nerve stimulation. Lavender oil also exhibits relaxation properties and decrease amplitude and concentration dependent reduction of directly electrically stimulated rat hemidiaphragm twist response.

The lavender oil is traditionally having a medicinal property along with that it has sedative, a lavender oil is found to be active against-depressive, carminative, anti-inflammatory properties also. Lavender oil is found to be active against many species of bacteria, including those resistance to antibodies such as methicillin resistance enterococcus. It has been also found that lavender oil is effective antifungal agent against fungi of both medical and agricultural importance.

Lavender oil has been also used to cure pain. It shows effective short-term treatment for lower back pain inhalation of lavender oil does not cause any side effect. Its flower occurs in summer. Lavender oil is extracted from its flower. It can tolerate moderate frost and drought. It grows approx. 1700 m above the sea level. It requires well drained light, sandy, sandy loam or gravelly soils in full sun. It is mainly propagated by seed, cuttings, tissue culture, and division of roots. Lavender is used in cream and it can prevent permanent scar tissues. It is also used in household herbal remedy. Lavender is very useful in treatment of burns, scalds.

### Review of Literature

Lavender essential oil is used in medicines and cosmetics products<sup>[1, 3]</sup>. Lavender oil has been used for centuries as a therapeutic agent and the oil derived from these plants has been widely used as an antibacterial in May disease<sup>[1, 4]</sup>. The lavender oil is believed to have sedative, carminative, anti-depressive, and anti-inflammatory properties in addition it has antimicrobial effect also. Lavender oil is active against many species of bacteria, including those resistance to antibiotic such as methicillin resistance staphylococcus aureus and vancomycin resistance enterococcus<sup>[6, 8]</sup>.

The activity of essential oil considerable variability with *L. angustifolia* and *L. x intermedia* oils showing the highest activity against several bacteria. The difference in the chemical structure of the oil make the oil more effective against particular bacteria. Between chemical composition and microbial activity no correlation has been observed. It has been investigated that the anecdotal use of lavender oils as antibacterial agents and demonstrated that some oils which had previously not been have good antibacterial activity. In the activity of different oils variation were found that different oils should be targeted for different therapeutic uses. Not all lavenders are equals in their antimicrobial uses. It has been found that volatile component of lavender essential oils displays potent antifungal activity and there is no difference reported between *Lavandula* oil volatiles<sup>[12, 15]</sup>.

Microbial growth can be inhibited by the small amount of

lavender oil. Now a day's lavender oil is being predominantly used in aromatherapy, massage, and many other benefits are there including treatment of stress, depression improving mood and relieving anxiety<sup>[3]</sup>. Aromatherapy is therapeutically effective due to both the psychological effect of the odour and the physiology effects of the inhaled volatile compounds. Inhaling of lavender oil has been reported to improve sleep pattern and alerting patient mood<sup>[3]</sup>. A recent study investigated the use of lavender oil in aromatherapy in dementia patients found no evidence that a purely olfactory form of aromatherapy led to decrease agitation in several demented patient and suggested that cutaneous applications of the essential oil may be necessary to achieve the optimum effect<sup>[18]</sup>.

One of the major lavender oil linalool, led to decrease the systolic blood pressure and skin temperature compared to a corresponding control group receiving a placebo no effect on subjective evaluation of wellbeing was noted<sup>[18]</sup>. In a study although it was not demonstrated that massage with lavender essential oil and an inert carrier oil were unable to demonstrate any antibacterial or antifungal activity<sup>[7]</sup>. In oil constitute very kittle synergistic relationships were occurred. Identification of the biological active component of lavender oil and determination of their mechanism of action, in isolation and combination clarify many of the benefits found in lavender oil research and this may lead to identification of novel, and effective therapeutic use of lavender oils<sup>[30, 32]</sup>.

POH perillyl alcohol have been recently identified as a potential anticancer agent, which may be useful in both the treatment and prevention of cancer. Lavender essential oil is regarded as safe oil and has been reported that it is the major constituent of linalyl acetate and are toxic to human skin cells *in vitro*<sup>[32, 34]</sup>. The minimum inhibitor concentration of the lavender oil has been reported as being comparable to that of tea tree oil<sup>[10]</sup>. Lavender oil is being used as a prophylactic or for use in topical application for surface infection rather than for use against deep seated infections. In inhibition of germ tube growth lavender oil has also been reported to be an effective antifungal agent against fungi of both medical and agricultural importance<sup>[11]</sup>.

All lavender oil display some or the other antifungal activity with oils derived from. *Angustifolia* and *L. x intermedia* demonstrating the greatest effect against aspergillus and trichophyton. The lavender oil derived from *L. stoechas* was effective against that agricultural Fungai and others microbes. Lavender oil has activity against fungi of both the medical and agricultural importance and suggested that various oils from lavender may be useful in the treatment of fungal infections<sup>[12]</sup>. Recent study suggest that hydrosols have long term benefits in improving pain control quality of life anxiety and to those patients who received the inert carrier oil only but no massage beside this sleep scores also get improved and with combined massage group. Inhalation of Lavender oil has also been found useful in radiotherapy which reduces anxiety. Lavender oil has an association between positive emotional state and therapeutic benefit<sup>[22, 25]</sup>.

Similarly, lavender effects have also been seen in neurology patients and psychological distress patients. Inhalation of lavender oil reduces pain and cause relief it is also effective in short term treatment for lower back pain<sup>[26]</sup>. Inhalation of lavender oil have a direct analgesic effect it may simply elicit a more positive appraisal and subsequent positive retrospective evaluation of treatment related pain from the patient when they said about lavender aromatherapy associated pain relief. Presence of linalool or linalyl acetate

could protect animals from acute ethanol induced gastric ulcers [29].

Researches is being going on worldwide which will further identify and isolate the chemical of lavender oil which will allow the identification of biological active constituents of the oil and determine action of any synergistic effects of the mixed components. The main constituent of lavender oil plays a major role in the biological activity of lavender oil beside this it has also been reported that the antimicrobial activity of different types of lavender oil are not related to these major constituents. Studies on the relationships between biological activity and chemical composition of lavender have found no correlation between linalool or linalyl acetate content.

### Health benefits and uses of lavender

The lavender oil is highly regarded for skin and beauty and is commonly used in fragrances and shampoos which helps to purify the skin. Lavender oil has antiseptic and anti-inflammatory properties which can heal minor burns and bug bites. It may also be useful in treatment of anxiety, insomnia, depression, and restlessness. Consuming lavender as a tea can help digestive issues such as vomiting, nausea, intestinal gas, upset stomach and abdominal swelling. In addition to these benefits I also help relieve pain from headache, sprains, toothaches and scores. It can also be used to prevent hair loss. Lavender oil can also be effective in combating antifungal resistance infections. Lavender oil has also been found effective in treatments of wound healing. Lavender have an acceleratory effect on wound healing. Lavender oil is also useful in treatment of hair loss which is also called alopecia areata. This the condition in which hair lost from some or all areas of the body. It has been reported that treatment of hair by lavender oil can reduce hair loss in one month and promote hair growth over the course of 4 weeks. Lavender oil is also useful for patients with different anxiety disorders. One of the lavender oil named silexan available in 80 milligram gelatine capsules. It has been found that silexan had an anxiolytic or anxiety reducing effect on patients with generalized or subsyndromal anxiety within 2 weeks. It has been also found that lavender scent may help anxious dental patients. Those patients expose to lavender scent reported lower level of anxiety compared to the other patients. Lavender oil has also been shown to reduce the amount of painkilling medicine required after tonsillectomy. Lavender oil also helps to alleviate premenstrual emotional symptoms. Women's of reproductive age have experienced the benefits of lavender which help to alleviate premenstrual emotional symptoms and also experience the range of symptoms in the premenstrual phase commonly known as PMS. By aromatherapy treatment these benefits were achieved. The lavender aromatherapy could alleviate premenstrual emotional symptoms.

In the treatment of depression, colic, constipation, nausea and vomiting, migraines, otitis, high blood pressure, menstrual pain, eczema, cancer related pain, dementia, lice the lavender is not much useful. Lavender fragrances could have a beneficial effect on insomnia and depression in female and in college students. The uses of lavender oil sometime on the skin might trigger prepubertal gynecomastia it is a condition that causes enlarge breast tissues in boys before puberty. Taking of lavender during pregnancy or while breast feedings has also not been confirmed. As lavender slow down the central nervous system so doctor's advice patients to stop using lavender at least 2 weeks before surgery.

### Benefits of Lavender Oil

- It reduces anxiety and emotional stress
- Lavender protects against diabetes symptoms
- It also improves brain functions
- It helps to heal burns and wounds
- It improves sleep
- It reduces acne and restore skin complexion
- It helps in slow aging with powerful antioxidants
- It helps in relieving pain
- It alleviates headaches

Lavender oil is a natural antioxidant that works to prevent and reverse disease. Lavender oil increases the activity of the body. Lavender oil has antioxidants that prevent or reverse oxidative stress.

Lavender essential oil protect body from the following diabetes symptoms:

- From increased blood glucose level
- From metabolic disorder
- From weight gain
- From liver and kidney depletion
- From liver and kidney dysfunction
- From liver and kidney lipoperoxidation

Lavender oil is also been used against neurological damage. It is also been used for the issues like migraines, stress, anxiety and depression. By using lavender there is a decrease in the postnatal depression and anxiety disorder. Lavender oil can also improve PTSD symptoms. Lavender oil improve stress and improve sleep. Lavender oil also helps to cure Alzheimer's disease. Lavender oil is also used to prevent various infections and combat bacterial and fungal disorders. It has been reported that lavender oil speeds the healing of burns, cuts, scraps, and wounds. 1:1 ratio of lavender oils is most effective in fighting against the skin disease. Lavender oil promotes collagen synthesis. It induces relaxation and relieves tension it works as a sedative, anti-anxiety, calming agent and anticonvulsant. Lavender oil is more useful when it is mixed with coconut oil, jojoba oil, or grapeseed oil. It helps to remove skin related problems like canker sores, acne, spots. Because of its sedative and calming properties, it works as medicine to treat sleep problems and insomnia. Inhaling lavender reduces sleep problems, improve quality of sleep, and duration of sleep.

### Conclusion

Lavender essential oil is an herb which is used in our daily life for many purposes. It has many health benefits also. Besides having the medicinal properties lavender is also very healthy for glowing skin and it protect skin from acne and other skin problems. Lavender have also some medical benefit also such as inhaling of lavender oil helps to improve sleep duration, sleep quality, and it provide relaxation. Lavender also reduces the symptoms of diabetes. Lavender helps to slow down the ageing process. Lavender also have antifungal, antimicrobial, antibacterial effects also.

### References

1. Gattefosse RM. Gattefosse's Aromatherapy. Saffron Walden, England, 1937. Cavanagh HMA & Wilkinson JM. Biological activities essential oil. J Phyto Res. 2002; 16:301-308.
2. Grieve M. A Modem Herbal. Harcourt, Brace &Co, New York, 1931.

3. Nelson RRS. *In vitro* activities of five plant essential oils against methacillin-resistant *Staphylococcus aureus* and vancomycin-resistant *Enterococcus faecium*. *J Antimicrob Chemother.* 1997; 40:305-306.
4. Lis-Balchin M, Deans SG, Eaglesham E. Relationship between bioactivity and chemical composition of commercial essential oils. *Flavour Fragr J.* 1998; 13:98-104.
5. Hammer K, Carson C, Riley T. Antimicrobial activity of essential oils and other plant extracts. *J Appl Microbiol.* 1999; 86:985-990.
6. Inouye S, Yamaguchi H, Taluzawa T. Screening of the antibacterial effects of a variety of essential oils on respiratory tract pathogens, using the modified dilution assay method. *J Infect Chem. Other.* 2001, 7:251-254.
7. Daferera DJ, Ziogas BN, Polissiou MG. GC-MS analysis of essential oils from some Greek aromatic plants and their fungitoxicity on *Penicillium digitatum*. *J Agric Food Chem.* 2000; 48:2576-2581.
8. Moon JM, Cavanagh HMA. Antifungal activity of Lava-zdula essential oil and oil volatiles. AICA National Conference, abstracts, 2004, 46.
9. Inouye S, Tsuruoka T, Uchida K, Yamaguchi H. Effect of sealing and Tween 80 on the antifungal susceptibility testing of essential oils. *Microbiol Immunol.* 2001; 45:201-208.
10. Snow LA, Hovanec L, Brandt J. A controlled trial of aromatherapy for agitation in nursing home patients with dementia. *J Altern Complement Med.* 2004; 10:431-437.
11. Alaoui-Ismaili O, Vernet-Maury E, Dittmar A, Delhomme G, Chanel J. Odor hedonics: connection with emotional response estimated by autonomic parameters. *Chem Senses.* 1997; 22:237-248.
12. Millot JL, Brand G. Effects of pleasant and unpleasant ambient odors on human voice pitch. *Neurosci Lett.* 2001; 29:61-63.
13. Diego MA, Jones NA, Field T, Hernandez-Reif M, Schanberg S, Kuhn C *et al.* Aromatherapy positively affects mood, EEG patterns or alertness and math computations. *Int J Neurosci.* 1998; 96:217-224.
14. Barocelli E, Calcina F, Chiavarini M, Impicciatore M, Bruni R, Bianchi A *et al.* Antinociceptive and gastroprotective effects of inhaled and orally administered *Lavandula hybrida* Reverchon Grosso essential oil. *Life Sci.* 2004; 76:213-223.
15. Gedney JJ, Glover TL, Fillingim RB. Sensory and affective pain discrimination after inhalation of essential oils. *Psychosom Med.* 2004; 66:599-606.
16. Liston BW, Nines R, Carlton PS, Gupta A, Aziz R, Frankel W *et al.* Perillyl alcohol as a chemopreventive agent in N-nitrosomethylbenzylamine-induced rat esophageal tumorigenesis. *Cancer Res.* 2003; 63:2399-2403.
17. Matthieu L, Meuleman L, Van Hecke E, Blondeel A, Dezfoulian, Constandt L *et al.* Contact and photocontact allergy to ketoprofen: the Belgian experience. *Contact Dermatitis.* 2004; 50:238.