

Vitex Berry Essential Oil

Family: Lamiaceae (also placed in Verbenaceae)

Common names: Chaste Tree, Chasteberry, Monks Pepper

Botanical name: *Vitex agnus-castus* L.

Plant part used: Berries. An essential oil can also be distilled from the aerial parts – leaves and some unripe berries.

Vitex agnus-castus is a native of the Mediterranean region, a deciduous shrub from 1 to 5 meters in height. It has lovely down coloured leaves, blooming extensively in early summer with pink-violet flowers.



***Vitex agnus-castus* flowers and ripening berries**

A large amount of seeds are produced in the fall. As the berries ripen, the leaves wither and fall.

Chaste berries and leaves have an ancient tradition of medicinal use, as for example described in 55 AD by the Greek physician, Dioscorides in his tome *De Materia Medica*, as being useful for “... those who have chronic period troubles and inflammations about the womb” and to help promote the flow of breast milk after birth.

The tradition continued in European medicine, as with John Gerard and his tome, *Herball or Generall Historie of Plantes* (1597) suggesting the use of Chaste berries for ‘those who would live chaste’ in reducing sexual desire (hence the name ‘chaste tree’), as well as the indications for various menstrual complaints.

From a Traditional Chinese Medicine perspective, *Vitex* extracts are said to help circulate uterus *Qi*, in dealing with *Qi* constraint and stagnation, as with painful menstruation (dysmenorrhea) and lack of menstruation (amenorrhea).

Overall, *Vitex* is seen useful to Tonify reproductive *Qi*; harmonizing & regulating for menstruation, menopause and sexuality.

Vitex, as the herb, can be said to be a fundamental harmonizer of sexual function and expression.

The botanical name, *Vitex agnus-castus*, comes from the Greek *agnos* (meaning ‘infertile’ or chaste) and the Latin *castus*, also translated as ‘chaste’ or ‘pure’. The common name of ‘Monk’s Pepper’ comes from the extensive use of the berries as a peppery spice in the Middle Ages throughout the monasteries of the Holy Roman Empire, to supposedly help quell the desires of the monks.

In recent years, a variety of good clinical studies have been undertaken to demonstrate the beneficial actions of *Vitex* extracts on the female hormonal system and to attempt to identify any active compounds responsible.

Properties & Effects of *Vitex* extracts

One primary action of *Vitex* is that it inhibits the production of the hormone prolactin by the lactotroph cells of the anterior pituitary gland. Compounds in *Vitex* are dopamine agonists. That is, these compounds will be taken up by cell receptor sites on lactotroph cells and have the same action as dopamine. Dopamine is responsible for inhibiting the production of prolactin.

An excessive prolactin level – hyperprolactinemia – is often the cause of corpus luteum insufficiency in women. The corpus luteum forms after the release of an ovum in the 2nd half of the menstrual cycle and produces progesterone. Hence, *Vitex* enhances the proper development of the corpus luteum, thereby raising progesterone levels. This has many benefits in menstrual complaints, menopause and infertility issues.

The beneficial uses of *Vitex* extracts that are supported by clinical trials include:

- Premenstrual syndrome - PMS (excepting type C, characterized by dizziness, craving for sweets and headache). This includes: premenstrual mastalgia (breast pain) and fluid retention; conditions aggravated by sex hormone levels including mouth ulcers, acne, herpes type 1 and epilepsy. Emotional complaints, such as weepiness, loss of self esteem and mood swings appear to benefit as well.
- Menstruation disorders including secondary amenorrhea (lack of menstruation), irregular menstrual bleeding from functional causes (metrorrhagia), lengthened or shortened menstrual cycle.
- Infertility due to decreased progesterone levels or excessive prolactin levels.
- Insufficient milk production
- Other applications include:
- Menopausal symptoms, as described following in this story, and helping withdrawal from hormone replacement therapy.
- Conditions where excessive oestrogen / low progesterone are implicated, such as endometriosis, fibroids and ovarian cysts.
- Conditions caused by excessive prolactin levels, such as erectile dysfunction in men, galactorrhea (breast milk production in women outside of pregnancy or in men), male acne, breast cysts, fibrocystic breast disease and benign prostatic hyperplasia.
- Sexual overstimulation – can reduce libido

Vitex extracts

The majority of research studies to date have used an alcoholic extract of Chaste berries, which contain both water- and oil-soluble compounds.

A total ethanol/water tincture contains:

- Essential oil (approximately 0.5%)
- Diterpenes: labdane- and clerodane-type, including rotundifuran & 6 β ,7 β -diacetoxy-13-hydroxy-labda-8,14-diene.
- Flavonoids including casticin, vitexin, isovitexin, penduletin, chrysophanol D, hydroxykaempferol
- Iridoid glycosides (0.3% including agnuside (0.6%), aucubin (0.3%))

At present, studies have demonstrated that the diterpenes, rotundifuran and 6 β ,7 β -diacetoxy-13-hydroxy-labda-8,14-diene are the compounds with affinity for the dopamine D₂ receptors, along with linoleic fatty acid (the most common polyunsaturated fatty acid in many vegetable oils).

***Vitex* essential oil**

The distillation of *Vitex* berries requires up to 24 hours to remove all aromatic compounds, including small amounts of diterpene compounds. To date, no analysis is available that specifically identifies diterpenes such as rotundifuran in the essential oil.

Our own in-house GC/MS analysis of *Vitex* Berry oil shows the following composition:

Monoterpenes: alpha-thujene (1%), alpha-pinene (5.99%), sabinene (30.71%), beta-pinene (1.69%), myrcene (2.25%), α -phellandrene (0.35%), α -terpinene (1.70%), p-cymene (1.27%), limonene (3.31%), trans- β -ocimene (0.28%), γ -terpinene (2.86%), terpinolene (0.70%)

Oxides: 1,8-cineole (24.26%)

Monoterpene alcohols: cis- & trans-sabinene hydrate (0.53% & 0.62%), δ -terpineol (0.29%), terpinen-4-ol (3.22%), α -terpineol (0.98%)

Monoterpene esters: α -terpinyl acetate (3.83%), citronellyl acetate (0.17%)

Sesquiterpenes: delta-elemene (0.12%), α -gurjunene (0.45%), β -caryophyllene (2.89%), trans- β -farnesene (4.11%), allo-aromadendrene (0.86%), bicyclogermacrene (1.57%)

Given the difficulty of such high boiling point diterpenes to pass over during steam distillation, it is clear that the content of any diterpenes will be only in trace amounts at best in an essential oil.

With a very low content of diterpene compounds, one must wonder if the essential oil would have any similar therapeutic action as compared to a total extract of *Vitex*.

Nevertheless, there are now a good number of anecdotal reports of *Vitex* essential oil being of benefit in a variety of menstrual and menopausal complaints, well beyond the level of any 'placebo' effect.

The most useful study on *Vitex* essential oil to date was undertaken by Barbara Lucks in 2000, published in 2002 as '*Vitex agnus-castus* essential oil and menopausal balance: a self-care survey'.

In this survey, 23 women reported on their experiences using *Vitex* essential oil using a questionnaire detailing common menopausal symptoms. All women were in the perimenopausal to postmenopausal period.

All were already using a variety of medical and/or complementary treatments for their menopausal symptoms. The use of *Vitex* oil was added to their regimes, with the exception of two women who only used *Vitex* oil.

The participants chose the method as to how they wanted to use the *Vitex* oil, either:

- Ingestion of the oil – only one drop (approximately 35mg) per day.
- Application of a topical cream containing from 1% to 2% *Vitex* essential oil.
- Inhalation of the oil as desired.

Obviously, the actual absorbed dose of *Vitex* oil would have a wide variation between these different methods of use.

The following percentages of participants reported minor to severe problems with the following symptoms prior to the use of essential oil of *Vitex agnus-castus*:

Mood swing, depression, personality changes	57%
Memory loss, disorientation, difficulty concentrating	74%
Hot flashes or night sweats	65%
Vaginal thinning, dryness, pain with intercourse	30%
Insomnia	61 %
Loss of hydration and elasticity of skin	48%
Heavy or prolonged bleeding	43%
Bladder discomfort	26%

Of those participants reporting the above problems, following are the results detailing the percentage of moderate to major improvement as a result of using essential oil of *Vitex*. The study period went for three months. Some number of participants reported that daily use of the essential oil for four to six weeks was needed before effects were obvious.

Mood swing, depression, personality changes	80%
Memory loss, disorientation, difficulty concentrating	27%
Hot flashes or night sweats	75%
Vaginal thinning, dryness, pain with intercourse	83%
Insomnia	60%
Loss of hydration and elasticity of skin	0%
Heavy or prolonged bleeding	50%
Bladder discomfort	0%
Changes in libido	43%

In the study, results were broken down as to the response noted from the use of the essential oil derived from the berries or leaves, which varied. The essential oils were somewhat different in the percentages of various components.

The *Vitex* Berry essential oil stocked by *Essential Therapeutics* represents more of a balance between the two oils used in the study.

Some comments from the participants, as reported in *The Vitex Anthology* by Barbara Chopin Lucks:

"When I went off [synthetic hormone replacement therapy] in 1999, due to educating myself...it was a long hard struggle to find the right balance of herbs and exercise. Using the *Vitex* has helped tremendously." This woman sniffs the oil out of the bottle as a "hot flash inhaler".

"Felt improvement in breast engorgement early on, which was great! Length and flow of period stabilized midway through the three month period. Libido seems to have improved moderately, especially towards the end of the three month period. ...She also reported that vaginal thinning, dryness and pain with intercourse had improved greatly. Several women experienced this improvement, to their delight."

"One of the nicest actions of the oil was mentioned by several women. This lady, who used the leaf oil, said it well: Alleviated symptoms as described and gave me a balance- a peacefulness and relaxation that was much ... needed and greatly appreciated."

In summary, 80% of the 23 participants after two to three months of using *Vitex* essential oil reported moderate to significant improvement in their menopausal symptoms.

Comments from Barbara Chopin Lucks:

“Essential oil Vitex is exhibiting a remarkable ability to reduce or eliminate hot flashes and night sweats. Many women also report that vaginal tone and lubrication is markedly improved with use of the oil. A majority of test subjects who reported irregular periods before using the oil reported regulation of periods after a few months of use. However, the effect that elicits the most grateful comments is the apparent ability of Vitex to calm emotional swings and help with some of the cognitive changes during menopause.

Response to the oil can take 4-6 weeks of regular use, or response can be almost instant. I have witnessed very rapid release from hormonal headaches and hot flashes by women who use the oil by inhalation. Symptoms such as irregular periods and flooding generally start showing improvement after 6-12 weeks of regular use. People who expect an essential oil to work with the speed of a synthetic drug may give up too soon on Vitex.”

Using *Vitex* essential oil

Following are comments from Janina Sørensen, who is a medical herbalist and has worked with *Vitex* Berry essential oil for a number of years. She was the original producer of *Vitex* Berry oil (www.wildherbsofcrete.com).

“*Vitex agnus-castus* is highly advocated for diseases related to hormonal disorders, and side effects have not been noted. In fact, it is mentioned, that the only 'side-effect' noted was pregnancy... And in fact, over the years we have worked (with *Vitex*), quite a few babies were born to couples which had years of difficulties getting pregnant...

Regarding dosage, *Vitex agnus castus* is usually taken once a day, morning fasting (*before breakfast*). The dose of the essential oil is one drop daily (1 drop is equivalent to 1/25 of a ml [*about 35mg*]...)”

I would add that a good way to do this is to add the essential oil to an edible emulsifier like *Disper*, so that the mixture can be added to a full glass of water or juice.

Further information includes:

- *Vitex* is not generally a ‘fast acting’ remedy. *Vitex* should be used through three menstrual cycles to fully evaluate its efficacy.
- *Vitex* essential oil can be used at a 2% concentration in vegetable oil for a whole body massage treatment, or at a 5% to 7% concentration in an oil, cream or gel base for application to localized areas such as sore breasts or menstrual cramping.

Safety Issues

Vitex essential oil is a non-toxic essential oil; it contains no overtly toxic compounds.

Any cautions are based on the oils potential actions as a dopamine agonist/prolactin inhibitor and its effects on progesterone levels. In this light, one can follow the recommendations for use of *Vitex* extracts in general:

A caution for use in conjunction with hormone replacement therapy unless hormonal levels are regularly measured, as progesterone levels can change.

Vitex oil may possibly interfere with conventional IVF hormonal treatments. Overall, *Vitex* extracts have shown significant efficacy in infertility treatments.

Although it has been theorized, there is no clinical evidence that *Vitex* would interfere with oral contraceptives.

It has been theorized that the dopaminergic action of *Vitex* extracts could reduce breast milk. However, clinical trials have demonstrated that at low dosages, *Vitex* extracts function as a galactagogue, increasing breast milk production.

Some authors have stated *Vitex* extracts are fine for use during pregnancy; other have suggested that it be used cautiously and only in the early stages for improving insufficient corpus luteal function.

There is no caution for using *Vitex* extracts in the case of oestrogen-dependent cancers. There are no phyto-oestrogen compounds in extracts or the essential oil.

Numerous studies have assessed *Vitex agnus castus* extracts (not the essential oil) to have no, or mild and reversible adverse effects. These mild effects include nausea, rash and headaches, in which case the *Vitex* extract should be discontinued if the effects do not abate.

There are rare reports of skin sensitivity to the oil. Two women in the study by Barbara Lucks described increased dreaming and nightmares with initial use, which passed with continued use.

In summary

Vitex essential oil shows a real potential for addressing many common complaints of menstruation and menopause, including the emotional highs and lows often experienced.

Vitex at present remains a relatively 'new' essential oil and its potential is yet to be fully known. The use of the oil is best said to be 'experimental' in nature at this time.

It will be useful for ongoing reports of experiences and case histories to be collected over time to build up a full picture of what *Vitex* essential oil is capable of.

From Janina Sørensen:

"The oil seems to reconnect women with their feminine strength and balance...

...This plant is a true helper and saviour for female imbalances and ailments, because we have seen that it has helped so many women to reconnect with their female identity, energy and health..."

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