

# Expert Herbal Reality Resource

## Agnus Castus

### Names

**Botanical Name** *Vitex agnus-castus* L.

**Family:** Verbenaceae

**Common names:** Chasteberry, Chaste tree, Monk's pepper (Eng), Keuschlammfrüchte, Schäffmülle (Ger), agneau chaste, arbre au poivre, gatillier (Fr)



### Description

Agnus castus or chasteberry is the fruit (drupe) of a shrubby plant up to 3 to 5m in height producing large dark green leaves radiating from a long, hairy stalk. The shoots terminate in a slender spike and are composed of whorls of violet flowers. The black spherical berries are lignified ovaries of two carpels each containing one seed, roughly ovoid about three by four millimetres, dark-grey in colour, yielding when crushed a dark powder of characteristic aroma and fragrant, slightly acrid and bitter peppery taste.

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### Constituents

- **Essential oil, about 0.7%, containing monoterpenes and sesquiterpenes such as limonene, sabinene, 1,8-cineole [eucalyptol], beta-caryophyllene and trans-beta-farnesene.**
- **Flavonoids** including vitexin and orientin and methoxylated flavones casticin, eupatorin and penduletin.
- **Iridoid glycosides**, including aucubin and agnuside.
- **Diterpenes** of the labdane and halimane types (clerodadienols) including rotundifuran, vitexilactone, vitetrifolin B and C, and viteagnusins A to I

The diterpenes bind to dopamine D2 receptors in the anterior pituitary and appear to be the constituents responsible for decreasing serum prolactin. The flavone casticin may also contribute to this effect.<sup>1</sup>

### Traditional use

An association with women's health has been established in European tradition from Graeco-Roman times. Pliny in the first century AD refers to its use to maintain chastity and claimed it checked violent sexual desire. Perhaps the Roman physician Dioscorides was referring to the same quality when he said the remedy might fend off wolves!

The mediaeval herbalist Parkinson noted that "*it also procureth milke in womens breasts, it procureth their courses (= menstrual flow) and the urine stopped...*" and "*the decoction of the herbe and seede is very good for women troubled with the paines of the mother, or inflammations of the parts*". In reinforcement of its association also with chastity he also noted that it "*refraineth also the instigations to Venery in any manner used and taken*".

Its traditional reputation was always intriguingly paradoxical, a point that modern herbal practitioners often take to point to an amphoteric effect. Thus Parkinson takes Galen to task: "*although so famous a writer and Physician contraryeth himselfe in this one place..., for having affirmed before that the seede hereof is hot and dry..., he saith that the seede of Vitex doth refraine Venerous desires, and giveth little nourishment to the body, and that because it is cooling and drying.*" He himself concludes that of the two positions the temperament of Vitex is "*a meane between them both*". As we have noted in our taste test this is an appropriate conclusion for a remedy that is both hot and bitter.



Interestingly in nineteenth century North America the Eclectics, a leading group of doctors who had revived herbal approaches, did recognise the complexity of this remedy and as well as stabilising menstruation, encouraging lactation and 'repressing sexual passions', applied it also to impotence, sexual melancholia, sexual irritability with nervousness, melancholia or mild dementia.<sup>ii</sup> This hints at an amphoteric, tonic effect across a range of hormonal disturbances.

Another strong strand in the agnus castus story is its use to encourage lactation. This may be associated with its wider link to motherhood although as we see below the evidence for this effect is not clear.

Earlier there had been other uses recommended. In Galenic medical texts, as noted above, agnus castus is classified as "hot and dry in the third degree" (ie among the strongest of this category) suggesting that it was appropriate for any 'cold-damp' condition. Even earlier, in Hippocratic texts from the 4<sup>th</sup> century BC, as well as its use for "issue of the blood" and "helping the afterbirth come away", agnus castus was recommended for the treatment of wounds, inflammatory conditions, and swellings of the spleen (=liver disease). The latter is a classic damp-heat problem that is consistent with its bitterness.

## What practitioners say

**Women's health:** Agnus castus is perhaps the western herbal practitioner's favourite women's remedy. It is used in a wide range of menstrual and also perimenopausal indications, now with increasing focus on conditions of high prolactin levels and progesterone deficiency (cystic hyperplasia of the endometrium is one diagnostic finding here). These include premenstrual syndromes (PMS), especially with fluid retention and breast swelling (though probably not so much those marked by hypoglycaemic sweet cravings), and other premenstrually-aggravated symptoms like sleeplessness and mouth ulcers. It may help regulate disturbed menstrual cycles and periods, including lengthened or shortened cycles, loss of periods (where pregnancy and other medical conditions have been ruled out). Here its effects seem to be greater where the menstrual disturbances can be linked to corpus luteum deficiency, ie where the post-ovulation timing is affected (learning when ovulation occurs with temperature or mucus testing can be a very useful guide). Some cases of bleeding outside the usual periods (metrorrhagia) may also be helped although this is a symptom that needs further investigations.

Other menstruation-linked indications for this herb include polycystic ovarian syndrome (PCOS - although alongside other remedies to manage the insulin resistance element of this condition), endometriosis and fibroids (in both cases mostly symptom management).

It is noteworthy that stress can itself raise prolactin levels and this can be another reason to use agnus castus (which has in general a calming quality).

Infertility is also a traditional indication for agnus castus. In this case it is most appropriate if there are problems with conception linked to disrupted menstrual cycles, for example affecting ovulation or later implantation. Herbal practitioners will usually note successful pregnancies among their previously infertile patients linked to the use of this herb.

As women go through the menopause they may find that premenstrual patterns merge into a wider and longer sometimes congestive pattern, as though the PMS is taking over. This is definitely a time to consider agnus castus as part of a wider menopause support strategy.

**Skin:** Agnus castus has a more recent use in helping to manage acne for anyone with that condition.

## Evidence

The research evidence suggests that agnus castus inhibits the hormone prolactin via dopaminergic activity in the anterior pituitary. A decrease of prolactin will affect the levels of follicle-stimulating hormone (FSH), oestrogen in women and testosterone in men. In terms of the menstrual cycle this has the effect of enhancing corpus luteal development (thereby correcting a relative progesterone deficiency) normalising the menstrual cycle, and encouraging ovulation.<sup>1,iii</sup>

Despite some methodological limitations, in one systematic review the results from randomised, controlled trials suggest benefits for agnus castus extracts in the treatment of premenstrual syndrome, premenstrual dysphoric disorder and latent hyperprolactinaemia.<sup>iv</sup> In other reviews, benefits in reducing premenstrual mood disorders<sup>v</sup> and infertility were noted.<sup>vi</sup> A meta-analysis and systematic review of the clinical evidence for the treatment of menstrual associated breast pain (cyclic mastalgia) also concluded that benefits were demonstrated.<sup>vii</sup>

Other reviews have been less sure of the strength of evidence, citing heterogeneity and publication bias,<sup>viii,ix</sup> and other shortcomings in the publications.<sup>x</sup> Among the challenges in assessing the data is that menstrual problems like premenstrual syndrome are themselves heterogenous and barely medically defined and measurable. In an early study the authors found no benefits versus placebo in premenstrual mood disorders but found a trend to benefits for water retention symptoms, including breast pain – see recent review above - for which they were not applying measures. They also noted many more unprompted subject reports of notable benefits among the verum versus placebo group. A conclusion was that standard measures are poor at reflecting a wide range of subjective experiences of menstruation.<sup>xi</sup>



There are doubts also about the evidence for the use of agnus castus as a galactagogue, to encourage lactation. Much of this comes from mid-twentieth century clinical studies conducted in less rigorous ways than would be considered today.<sup>xii</sup>

## Safety

In general, agnus castus is well tolerated. Occasional mild and reversible nausea, headache, gastrointestinal disturbances, menstrual disorders, acne, pruritus, and erythematous rash have been reported in large studies.<sup>xiii</sup> Among 352 nursing mothers given chasteberry tincture, 15 cases of skin problems and some cases of early menstrual period occurred.<sup>xiv</sup>

Agnus castus is best not taken in conjunction with progesterone drugs and hormone replacement therapy (HRT). There is however no evidence or likelihood that it will interfere with the effects of the contraceptive pill.

## Dosage

Very low doses were widely used in the German revival of agnus castus in the 20<sup>th</sup> century. However the clinical trial data suggests that effective doses should range between 200-500mg per day for most purposes, going up to 1,000 – 2,500 mg in more stubborn or demanding conditions. These higher doses seem to be required to manage acne.

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