



## Synopsis

## Can plant-based therapies assist menopausal symptoms?



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The synopsis is based on the following article: Franco OH, Chowdhury R, Troup J, Voortman T, Kunutsor S, Kavousi M, Oliver-Williams C, Muka T. Use of plant-based therapies and menopausal symptoms. A systematic review and meta-analysis. *JAMA* 2016; 315 (23): 2554–2563 [1]

**Design** Meta-analysis of 62 studies randomised clinical trials (RCTs).

**Participants** A total of 6653 participants [median age 53.5 (18–75 years)] unique women were assessed. The meta-analysis cohort located women from Europe (21 studies), Asia-Pacific (17 studies), North America (10 studies), South America (7 studies) and the Middle East (7 studies).

**Intervention** Hot flashes in 24 hours: dietary soy isoflavones, supplements and extracts of soy isoflavones, Red clover and other phytoestrogens.

Night sweats in 24 hours: dietary soy isoflavones, Red clover

Vaginal dryness score: supplements and extracts of soy isoflavones and other phytoestrogens

A meta-analysis comparing Red clover to Black cohosh was also conducted for the number of daily hot flushes. Doses of Red clover ranged from 40 to 160 mg daily and Black cohosh ranged from 6.5 mg to 160 mg daily.

Due to limited number of studies, a meta-analysis was not performed on the association between the use of Chinese medicinal herbs and menopausal symptoms.

The duration of the interventions ranged from 4 weeks to 2 years with the majority (28 studies) consisting of a 12-week intervention period.

**Comparator** Placebo or control. No information was given as to the exact number of trials which used placebo or control. All tables listed the comparator as control.

**Major outcomes** Some plant-based therapies are associated with modest reductions in the frequency of menopausal symptoms.

The combination of phytoestrogen supplements and individual phytoestrogen interventions e.g. dietary and supplemental soy isoflavones; were associated with improvement in some menopausal symptoms.

Reductions in hot flashes and vaginal dryness were noted but night sweats were not significantly reduced.

Supplementing with Red clover was associated with improvements in night sweats but not frequency of hot flashes.

All phytoestrogen interventions such as whole foods, soy protein and isoflavone extract supplementation yielded similar results.

Black cohosh showed no significant association with reduction of menopausal symptoms.

Trials of medicinal Chinese herbal remedies such as Dong quai showed no overall association in reducing menopausal symptoms.

Other trials assessing newer herbal remedies such as Err 731 (an extract isolated from *Rheum rhaponticum*) and pycnogenol (extract from pine bark) have reported improvements in the number of hot flashes women experience in 24 hours. But more trials are required.

**Settings** The settings of studies used for this meta-analysis was not stated.

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**Conclusion** This meta-analysis has shown that specific phyto-estrogen supplementation of plant-based therapies may modestly reduce the frequency of hot flashes and vaginal dryness but show no significant reduction in night sweats. However, the authors stated that due to the general suboptimal quality and the heterogeneous nature of the current evidence, further rigorous studies are needed.

### Commentary

Menopause is a natural process experienced by all women who live long enough although the nature and severity of symptoms will vary. A number of women (approximately 20% [2]) experience bothersome symptoms such as hot flushes or flashes, night sweats, vaginal dryness and sleeplessness [2] whilst others may experience only mild symptoms or not at all.

Whilst the NICE clinical guidelines recommends that a majority of menopausal women require little or no medical intervention [2], women who experience menopausal symptoms that interfere with their life, daily activities and/or sleep may use pharmaceutical or natural remedies in an attempt to reduce their symptoms. Of those who do require medical intervention hormone replacement therapy (HRT) is the most effective treatment for vasomotor symptoms. Alternative treatments such as particular selective serotonin receptor inhibitors SSRI's/SNRI's are recommended [2] where HRT is not appropriate such as women with breast cancer.

However, a number of women have concerns regarding the long-term health implications of using HRT [3]. Physicians have also described messages from patients in regards to menopause and HRT as confusing with most (80%) stating the topic of HRT and menopause is the most challenging aspect in patient

communication. Another confusing issue identified by the majority of US physicians (56%) was the 'inconclusive data about HRT' due to the publication of two major clinical studies, the Women's Health Initiative and the million Women Study (MWS) demonstrating risks associated with taking HRT [3–5]. In regards to physician's attitude to using herbal remedies for menopausal symptoms, 18% were not comfortable in discussing them or recommending them to their patients for menopausal symptoms [3].

This meta-analysis has indicated that specific plant based herbal remedies may have modest improvements for women experiencing menopausal symptom hot flashes and vaginal dryness. For women who are concerned about long term implications of HRT administration and for those women who are not recommended to use HRT, plant based herbal remedies may offer some support in reducing uncomfortable symptoms. Each women still needs to be assessed individually taking into consideration their symptoms, medical history and requirements.

### References

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