

Supplement Sampler

Black Cohosh (*Actaea racemosa*, *Cimicifuga racemosa*)

Black cohosh is a North American perennial, which is part of the buttercup family. It was first used medicinally by Native Americans for the treatment of malaise, gynecological disorders, rheumatism, kidney disorders, and sore throat. Insects tend to avoid the plant, which accounts for some of its alternative names including bugbane, bugwort, rattleroot and rattleweed.¹



Best Indications

- Menopausal symptoms
 - Hot flashes
 - Night sweats
- Osteoporosis

Mechanism of Action

Preparations of black cohosh are made from the roots and rhizomes (lateral root) of the plant. The exact mechanism of how black cohosh works is not completely known. It was once thought that the effects of black cohosh were due to estrogen receptor activation; however, this has been extensively studied and disproven. Newer studies suggest a nociceptor (pain blocking) mechanism. Black cohosh shows an affinity for the μ -opioid receptor (strong mediators of pain), which may explain the herb's beneficial role in improving symptoms associated with estrogen withdrawal during menopause.² Black cohosh also appears to have anti-inflammatory action via fukinolic acid, which acts as a potent neutrophil elastase inhibitor. Clinical research has also suggested that black cohosh extract can increase bone specific alkaline phosphatase, which is a marker of bone formation. The other active compounds identified in black cohosh include triterpene glycosides, resins, caffeic and isoferulic acids.³

Best Studies

- A meta-analysis published in 2010 assessed the efficacy of black cohosh herbal preparations for the treatment of menopausal symptoms. Nine randomized placebo-controlled trials were included in the analysis. Six of these studies showed a significant improvement in the black cohosh group compared to the placebo group. It was calculated that black cohosh improved vasomotor symptoms by 26% (95% CI 11-40%).⁴
- In a double blind, placebo controlled study consisting of 62 women randomized to receive 12 weeks of either 40 mg of black cohosh or placebo, the analysis of bone turnover markers indicated beneficial effects of black cohosh on bone metabolism.⁵
- A 2012 Cochrane review of black cohosh concluded that there was insufficient evidence to support the use of black cohosh for menopausal symptoms, based on the review of 16 randomized controlled trials including 2027 menopausal women.⁶



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Dose²

The best-studied and most widely available formulation of black cohosh in the United States is Remifemin.

- **Menopausal symptoms:**
 - In capsule, 40 mg twice daily for up to six months
 - In tincture form, 2 mL twice daily of a 1:1 tincture in 90% alcohol
- **Osteoporosis:** black cohosh extract CR BNO 1055 40 mg/day

Side Effects

Taken orally, black cohosh can cause gastrointestinal upset. Other adverse effects include rash, headache, dizziness, weight gain, cramping, breast tenderness, and vaginal spotting. Liver toxicity, leading to liver failure, has been described in women taking black cohosh alone and in combination with other herbs; however, adverse effects on the liver have not been proven in clinical trials.

There is conflicting evidence with respect to black cohosh and breast cancer. There is some evidence in animal models that there may be an increased risk of metastasis in existing breast cancer when taking black cohosh.⁷ Systematic review of current evidence does not support an association between black cohosh and breast cancer.⁸ In fact, there are studies suggesting that black cohosh increased disease-free survival in breast cancer patients.⁹ It is advised that women with breast cancer or a history of breast cancer consult their physician before taking black cohosh. Patients with kidney transplant, liver disease, and protein S deficiency should also use caution with black cohosh, as there may be an increased risk of adverse reactions in these conditions.

Cost

\$16 to \$23 per month at the 20 mg, twice daily dose.

Comments

Black cohosh should not be confused with blue cohosh (*Caulophyllum thalictroides*) which has different indications for use and a greater potential for toxicity.

Clinical Bottom Line

Black cohosh can be used for short-term (less than one year) relief of vasomotor symptoms of menopause in most women. Caution should be used in women who have breast cancer, or a history of breast cancer or liver disease. There is currently not enough evidence to recommend black cohosh for the treatment or prevention of osteoporosis.

References

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