The hormonal changes of menopause can produce a wide variety of symptoms, ranging from hot flashes and vaginal dryness to anxiety, depression, and insomnia. Many of these symptoms are undoubtedly caused by the natural decrease in estrogen production that occurs at menopause; however, the human body is so complex that other hormonal factors undoubtedly also play a role.

Menopause is not a disease. It is clearly a natural process, but one that many women prefer not to experience. No longer do women accept as merely part of life the decrease in libido, pain during intercourse, years of hot flashes, and other uncomfortable problems that may accompany menopause. This raises an important point: How close to nature do we want to live? One of the most valued ideals of alternative medicine is the desire to trust nature, but sometimes we may want to draw a line. For example, in a state of nature, infant and maternal mortality is high. This process of survival of the fittest helps humanity as a species to be stronger, but it is not something that a compassionate society can tolerate. Thus, no matter what our ideals, we frequently find ourselves tampering with nature. The treatment of menopause is simply one example among many.

Estrogen-replacement therapy can alleviate many of the problems associated with menopause. However, it creates counterbalancing risks. The most frightening issue is the increased risk of breast cancer that appears to be associated with replacement estrogen. In addition, estrogen therapy can cause blood clots in the legs, and it appears to raise the risk of heart disease rather than prevent it (as previously thought). The decision whether to use estrogen-replacement therapy for menopausal symptoms should involve a careful examination of the risks and benefits in consultation with a physician.

Principal Proposed Natural Treatments

Several natural treatments may reduce menopausal symptoms, as compared to placebo. (The latter comparison is essential, as placebo itself is dramatically effective for menopause, generally reducing the rate of hot flashes by 50%.)

We do not know for sure whether any of these reduce the risk of osteoporosis. See the full article on Osteoporosis for more detailed information on natural ways to prevent bone loss.
Both soy and red clover contain phytoestrogens (naturally occurring substances with estrogen-like actions) called isoflavones. It is thought that the isoflavones in these herbs may offer some benefits of estrogen with less risk. However, the current evidence base for this hypothesis is conflicting.

Improvements in hot flashes as well as other symptoms, such as vaginal dryness and mood, have been seen in many studies of soy, mixed soy isoflavones, aglycone isoflavones, and the isoflavone genistein alone. However, about as many studies have failed to find significant benefit as compared to placebo with soy or concentrated isoflavones.

For example, a double-blind study of 247 women suffering from menopausal hot flashes compared the effects of placebo and genistein over a period of one year. Genistein was taken at a dose of 54 mg per day. The results indicated that use of genistein significantly reduced hot flashes as compared to placebo.

In addition, isoflavones from red clover have shown inconsistent results in studies, with the best and largest study finding no benefit.

What can one make of this mixed evidence? One problem here is that placebo treatment has a strong effect on menopausal symptoms. In such circumstances, statistical noise can easily drown out the real benefits of a treatment under study. Unlike estrogen, which has such a powerful effect on hot flashes and other menopausal symptoms that its benefits are almost always clear in studies, soy or concentrated isoflavones likely have a more modest effect, one that does not always show itself above the background noise of statistical variation. It has also been suggested that the placebo used in many of these studies, polyunsaturated fatty acids, may have efficacy of its own; this would tend to hide actual benefits.

Another explanation may be that certain women benefit from soy isoflavones more than others. In about one-third of people, isoflavones are converted by intestinal bacteria into a substance called equol. At least two studies suggest that these equol producers may experience greater reduction in their menopausal symptoms than non-equol producers.

Evidence regarding whether soy or soy isoflavones are helpful for osteoporosis remains conflicting. On balance, it is probably fair to summarize current evidence as indicating that isoflavones (either as soy, genistein, mixed isoflavones, or tofu extract) have a modestly beneficial effect on bone density.

Interestingly, one small but long-term study suggests that progesterone cream (another treatment proposed for use in preventing or treating osteoporosis) may decrease the bone-sparing effect of soy isoflavones.

For more information, including dosage and safety issues, see the full Isoflavone article.

Black Cohosh

The herb black cohosh is widely used for treatment of menopause, but the evidence that it works remains incomplete and inconsistent.

The best study was a 12-week, double-blind, placebo-controlled trial of 304 women with menopausal symptoms. This study appeared to find that black cohosh was more effective than placebo. The best evidence was for a reduction in hot flashes. However, the statistical procedures used in the study were somewhat unusual and open to question.

Promising results were also seen in a 3-month, double-blind study of 120 menopausal women. Participants were given either black cohosh or fluoxetine (Prozac). Over the course of the trial, black cohosh proved more effective than fluoxetine for hot flashes, but fluoxetine was more effective than black cohosh for menopause-related mood changes.

Previous smaller studies have found improvements not only in hot flashes but also in other symptoms of menopause. For example, in a double-blind, placebo-controlled study, 97 menopausal women received black
cohosh, estrogen, or placebo for 3 months. The results indicated that the herb reduced overall menopausal symptoms (including hot flashes) to the same extent as the drug. In addition, microscopic analysis showed that black cohosh had an estrogen-like effect on the cells of the vagina. This is a positive result because it suggests that black cohosh might reduce vaginal thinning. However, black cohosh did not affect the cells of the uterus in an estrogen-like manner; this too is a positive result, as estrogen’s effects on the uterus are potentially harmful. Finally, the study found hints that black cohosh might help protect bone. However, a great many of the study participants dropped out, making the results less than reliable.

One study, too small to have reliable results from a statistical point of view, found black cohosh equally effective as 0.6 mg daily of conjugated estrogens.

A study reported in 2006 found that black cohosh has weak estrogen-like effects on vaginal cells and possible positive effects on bone (specifically, stimulating new bone formation).

A substantial (244-participant) double-blind study published in 2007 compared black cohosh against the synthetic hormone tibolone and found them equally effective for treating menopausal symptoms. Though not approved as a drug in the US, tibolone does appear to be effective for menopausal symptoms, and therefore these results are somewhat promising. However, this study lacked a placebo group, and since the placebo effect is powerful for this condition, this omission significantly reduces the meaningfulness of the results.

One interesting double-blind study evaluated a combination therapy containing black cohosh and St. John's wort in 301 women with general menopausal symptoms as well as depression. The results showed that use of the combination treatment was significantly more effective than placebo for both problems. A smaller study using a combination of the same two herbs found improvements in overall menopausal symptoms as well as cholesterol profile.

In contrast, there have been several studies that failed to find benefit. For example, in a 12-month double-blind, placebo-controlled study of 350 women, participants were given either black cohosh, a supplement containing 10 herbs, the multibotanical plus soy, standard hormone replacement therapy, or placebo. The results showed significant benefits as compared to placebo for hormone replacement therapy, but only slight, nonsignificant benefits with the other treatments. In addition, a double-blind study of 122 women failed to find statistically significant benefits with black cohosh as compared to placebo. as did another study enrolling 132 women as well as one double-blind, placebo-controlled study that involved 124 women given a black cohosh/soy isoflavone combination. These negative outcomes were quite possibly due to the relatively small sizes of the black cohosh groups. In a condition such as menopausal symptoms, where the placebo effect is strong and treatment is relatively weak, large numbers of participants are necessary to show benefit above and beyond the placebo effect. Nonetheless, this is an impressive number of negative studies, and some question must remain about the efficacy of this herb.

The bottom line: Black cohosh may be modestly effective for reducing hot flashes and other symptoms of menopause, but doubts remain.

Some interesting information has developed regarding how black cohosh might work. In the past, the herb was described as a phytoestrogen. However, subsequent evidence indicates that black cohosh is not a general phytoestrogen, but may act like estrogen in only a few parts of the body: the brain (reducing hot flashes), bone (potentially helping to prevent or treat osteoporosis), and possibly the vagina (alleviating dryness and thinning). It does not appear to act like estrogen in the breast or the uterus, which is good news, as estrogen is carcinogenic in those tissues. If this theory is true, black cohosh is a selective-estrogen receptor modifier (SERM), somewhat like the drug raloxifen (Evista). However, more evidence is needed.

For more information, including dosage and safety issues, see the full Black Cohosh article.

Other Proposed Natural Treatments
Rhubarb contains the phytoestrogenic substance lindleyin. On this basis, extracts of rhubarb have been tried for control of menopausal symptoms. In a 12-week, double-blind, placebo-controlled trial of 109 women with menopause-related problems, use of a special rhubarb extract (ERr 731) significantly improved symptoms as compared to placebo.\(^{124}\)** Note:** Raw rhubarb is toxic when taken in excessive quantities. The special standardized extract used in these trials was processed so as to remove toxic components.

Grass pollen extracts have shown promise for treatment of benign prostate enlargement. Their benefits in that condition may result from a hormonal effect. On this basis, grass pollens have been proposed for treatment of menopausal symptoms. One double-blind, placebo-controlled study followed 54 women with menopausal symptoms and found benefits with a supplement containing grass pollen extract.\(^{122}\)

The herb *Pueraria mirifica*, which contains numerous phytoestrogens, has recently been promoted as an effective treatment for menopausal symptoms. In one double-blind study, the herb showed promise for improving vaginal dryness.\(^{136}\) In another trial comparing *Pueraria mirifica* to standard estrogen treatment (0.625 mg conjugated equine estrogen), researchers found the herb to be equally effective at relieving a range of menopausal symptoms.\(^{152}\)

In addition, another double-blind study found benefit with a combination product containing standardized extracts of black cohosh, dong quai, milk thistle, red clover, American ginseng, and chasteberry.\(^{127}\)

For many years, the hormone progesterone (so-called “natural progesterone,” as distinguished from the synthetic progestins used in birth control pills and hormone replacement therapy) was aggressively promoted by some alternative medicine practitioners as the true cure for osteoporosis. However, at that time there was no meaningful evidence that progesterone helps prevent osteoporosis—these claims were based largely on anecdotes, plausible reasoning, and “studies” that did not come close to modern scientific standards. When the subject was finally studied properly, the first results indicated that progesterone does not work for osteoporosis after all. However, it may work for other menopausal symptoms. A 1-year, double-blind, placebo-controlled study of 102 women found that cream containing 20 mg of the hormone progesterone may be effective against hot flashes,\(^{39}\) though it did not appear to protect bone from breakdown. However, another double-blind trial failed to find 32 mg daily effective for osteoporosis or any other menopause-related symptoms.\(^{88}\) See the Progesterone article for more information.

The hormone dehydroepiandrosterone (DHEA) has been tested as a treatment for menopausal symptoms, with some promising results in a small, preliminary trial.\(^{104}\) Because it is a naturally-occurring hormone, there has been some concern regarding the safety of supplemental DHEA. (See DHEA article for more information on its safety.) However, a placebo-controlled trial with 93 postmenopausal women found DHEA supplementation for 1 year was not associated with increased adverse endometrial effects or changes in blood lipids or insulin sensitivity.\(^{165}\)

One double-blind study found benefit with a mixture of isoflavones, lignans and black cohosh.\(^{131}\)

A small double-blind study conducted in Iran reported that vitamin E (400 IU daily) was more effective than placebo for treating menopausal hot flashes.\(^{145}\) However, a larger US study failed to find vitamin E significantly helpful for hot flashes associated with breast cancer treatment.\(^{82}\)

An extract made from human placenta (HPE) is used in South Korea and other areas of East Asia as a treatment for numerous conditions. One study compared HPE against normal saline solution for treatment of menopause.\(^{151}\) In this 8-week trial, participants were given either normal saline or HPE as a subcutaneous injection through the skin of the abdomen. The results appear to indicate that HPE might improve some symptoms of menopause.\(^{151}\)

Evidence conflicts on whether various forms of exercise may improve menopausal symptoms.\(^{139,140}\)

Evidence far too weak to be relied upon at all has been quoted in support of flaxseed,\(^{147,149}\) gamma oryzanol,\(^{76}\) multivitamin/multimineral combinations,\(^{150}\) and St. John’s wort.\(^{41}\) Other proposed treatments that lack meaningful supporting evidence include bioflavonoids,\(^{41}\) chasteberry, licorice,\(^{152}\) suma, and vitamin C. In one trial, a combination of St. John’s wort and chasteberry for 16 weeks failed to produce any significant benefit compared to placebo in 100 women suffering from hot flashes due to menopause.\(^{162}\)
Evidence regarding whether acupuncture might improve menopausal symptoms remains unconvincing. For example, one study that appears on the surface to be well-designed found no benefit at all in the placebo group. This is so unusual as to cast significant doubt on the results. Another pilot study found no significant difference between the sham (fake) acupuncture and real acupuncture for hot flashes. A small, placebo-controlled study among breast cancer patients with hot flashes due to their treatments did suggest some benefit for acupuncture, though the results were inconclusive. Two studies involving 462 post-menopausal women each concluded that acupuncture, when added to usual self-care, effectively reduces the frequency of hot flashes for at least 2 months. This effect may only be short-term, however. In one of these studies, researches re-evaluating participants at 6 and 12 months found the acupuncture group was no better that the group who received only self-care.

A double-blind, placebo-controlled study of questionable validity reported benefits in “all menopausal symptoms” through the use of OPCs from pine bark.

It has been suggested that royal jelly is beneficial for menopausal symptoms, but there is no evidence to support this claim. The same is true regarding Traditional Chinese herbal medicine for menopause. One study has been widely reported as proving the effectiveness of a particular Chinese herbal formula, but because it lacked a placebo group, it actually does not do so. Another study failed to find the Chinese herb Pueraria lobata helpful for menopausal symptoms. Some evidence suggests that evening primrose oil, dong quai, and ginseng are not effective for menopausal symptoms.

The herb alfalfa contains strong phytoestrogens. This might make it helpful for menopause, but no studies have been reported.

One double-blind, placebo-controlled study failed to find melatonin more helpful than placebo for menopausal symptoms. (Actually, placebo did a little better than melatonin.) Another study failed to find that ginkgo improved mood, general energy level, or mental function in menopausal women.

Heavy exercise causes increased calcium loss through sweat, and the body does not compensate for this by reducing calcium loss in the urine. The result can be a net calcium loss great enough so that it presents health concerns for menopausal women. One study found that use of an inexpensive calcium supplement (calcium carbonate), taken at a dose of 400 mg twice daily, is sufficient to offset this loss.

In a randomized, controlled trial, 8 weeks of daily supervised yoga was modestly more effective than a similar amount of supervised physical exercise in relieving menopausal symptoms (eg, hot flashes), decreasing psychological stress, and improving cognitive abilities among 120 women. Another study failed to find exercise helpful for reducing menopausal symptoms.

There is inconsistent evidence to support the use of wild yam to reduce menopausal symptoms. For example, in a double-blind, placebo-controlled study of 23 women with symptoms of menopause, use of wild yam did not reduce hot flashes nor raise levels of progesterone or estrogen in the body. However, a study involving 50 menopausal women found that the yam species Diascorea alata (12 mg sachet twice daily for 12 months) was more effective at relieving menopausal symptoms than placebo.

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**Estriol: A Safer Form of Estrogen?**

For over a decade, some alternative medicine practitioners have popularized the use of a special form of estrogen called estriol, claiming that, unlike standard estrogen, it doesn't increase the risk of cancer. However, this claim is unfounded.

There is no real doubt that estriol is effective. Controlled and double-blind trials have found oral or vaginal estriol...
effective for reducing hot flashes, night sweats, insomnia, vaginal dryness, recurrent urinary tract infections, and osteoporosis.\textsuperscript{49-57}

Estriol might cause less vaginal bleeding as a side effect than other forms of estrogen, but this has not been proven.\textsuperscript{58,59}

However, like other forms of estrogen, oral estriol stimulates the growth of uterine tissue. This leads to a risk of uterine cancer.

In a placebo-controlled study of 1,110 women, uterine tissue stimulation was seen among women given estriol orally (1 mg to 2 mg daily) as compared to those given placebo.\textsuperscript{60} Another large study found that oral estriol increased the risk of uterine cancer.\textsuperscript{61} In another study of 48 women given estriol 1 mg twice daily, uterine tissue stimulation was seen in the majority of cases.\textsuperscript{62}

In contrast, a 12-month, double-blind trial of oral estriol (2 mg daily) in 68 Japanese women found no effect on the uterus.\textsuperscript{63} It may be that the high levels of soy in the Japanese diet altered the results.

Additionally, test tube studies suggest that estriol is just as likely to cause breast cancer as any other form of estrogen.\textsuperscript{64}

The bottom line: If you are considering using estriol, think of it as equivalent to any other form of estrogen.

\begin{flushleft}{\textbf{References [+]}}\end{flushleft}


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