The explosion of available herbal products—to treat everything from the common cold to AIDS—has left many physicians searching for up-to-date and scientifically valid information about these substances. Although herbal products have been used as traditional therapy in many cultures for centuries, unfortunately, randomized and controlled studies have been in short supply.

Alternative therapies are being sought out by the public for a variety of reasons. For example, fear of breast cancer and other side effects of standard estrogen and progesterone therapy has been an impetus for menopausal women to look for alternative therapies for relief of vasomotor and other menopausal symptoms. Also, the lay public generally views herbs and other “natural” therapies as safe, effective, and lacking in significant side effects or drug interactions. For these reasons, it is not surprising that the use of herbal treatments for the symptoms of menopause is increasing.1,2 It is important for clinicians to have some knowledge of the herbal remedies that their patients may be taking, so that they can guide these patients in the use of such preparations and explain their likely benefit as well as any possible risks or side effects.

Menopausal symptoms for which patients frequently seek therapy may include vasomotor symptoms (ie, hot flashes, night sweats), insomnia, memory loss, mood swings, anxiety, and fatigue. Some of these symptoms are recognized to result from estrogen deficiency, but others may be associated with the normal aging process or with other underlying disorders unrelated to hormonal causes.

This review summarizes existing studies of commonly used herbal preparations for menopausal symptoms and evaluates their usefulness in clinical practice.

**SAFETY AND EFFICACY OF HERBAL THERAPIES**

The lack of scientific data on the safety and efficacy of herbal therapies is in part related to the Dietary Supplement Health and Education Act of 1994. This Act amended the 1958 Food and Drug Administration (FDA) Federal Food, Drug, and Cosmetic Act, stating that ingredients used in dietary supplements were no longer subject to premarketing safety evaluations required of other new food ingredients. Although manufacturers of these products may not make specific claims regarding treatment of diseases, there are no requirements for safety and efficacy studies. Because these natural substances cannot be patented, industry support for controlled scientific study has been limited.

Clinicians must base their decisions to recommend therapy on a few small trials for information regarding safety and efficacy. The FDA lists herbs that are “generally regarded as safe,” but provides no other regulatory control. The manufacturer is responsible for ensuring that products are safe. Reports of adverse effects or drug interactions associated with taking these supplements must be reported by the physician to the FDA via their MedWatch hotline.

**Commission E Recommendations**

In 1978, the government of Germany established the Commission E to review the safety and efficacy of more
than 1400 herbal agents used in that country. Composed of physicians, pharmacists, toxicologists, pharmaceutical representatives, and lay people, the Commission E publishes their recommendations in the form of monographs and bases them on clinical trials, field studies, and expert opinion. A weakness of these reports, however, is that they are presented without citation of references, so supportive data cannot be reviewed independently. In 1998, all monographs published since 1978 were translated into English by the American Botanical Council.

A recent review by Israel and Youngkin listed the Commission E recommendations for several herbs that may be useful in the management of perimenopausal and menopausal symptoms. Table 1 lists several herbs commonly used in the treatment of menopausal symptoms, some of which are recommended by Commission E, and others that, although not approved by Commission E, may frequently be encountered in clinical practice in the United States.

### HERBAL TREATMENTS FOR MENOPAUSE

The following herbal therapies are commonly used by patients in the United States for symptoms associated with menopause. Patients may encounter literature that recommends the use of specific herbs; however, this literature frequently does not offer supporting scientific data for its claims. Below, we review existing scientific data and make recommendations based on that information.

#### Balm

Balm (Melissa officinalis) is an approved therapy listed in the German Commission E monographs for treatment of sleep disturbance and anxiety. However, very little data exist to support its use as a primary therapy of menopausal symptoms. Experimental data have shown some antiviral effects of balm, including an inhibitory effect against HIV-1 reverse transcriptase. There are no specific contraindications to the use of this herb.

**Authors’ evaluation.** There is no clear evidence supporting a recommendation of balm for the treatment of menopausal symptoms.

#### Black Cohosh

Black cohosh (Cimicifuga racemosa) has been used for many years in Europe for treatment of hot flashes and has recently become available in the United States as an alternative to estrogen replacement. The active constituents are believed to be triterpenoid glycosides and isoflavones. One study demonstrated a decrease in luteinizing hormone (LH) levels, but not follicle-stimulating hormone (FSH), in women using the Cimicifuga extract. Other studies have shown that extracts contain substances that bind to estrogen receptors. A small German study (N = 60) compared postmenopausal women taking black cohosh extract (80 mg/day), conjugated equine estrogens (0.625 mg/day), or placebo. Similar significant reductions in hot flash occurrence in both treatment arms were found, with no significant differences in reported side effects.

**Authors’ evaluation.** There is no clear evidence supporting a recommendation of balm for the treatment of menopausal symptoms.

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**Authors’ evaluation.** There is no clear evidence supporting a recommendation of balm for the treatment of menopausal symptoms.

### Table 1. Commonly Used Herbs for Treatment of Menopausal Symptoms

<table>
<thead>
<tr>
<th>Herb</th>
<th>Menopausal Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balm (Melissa officinalis)</td>
<td>Sleep disturbance, nervousness, gastrointestinal upset</td>
</tr>
<tr>
<td>Black cohosh (Cimicifuga racemosa)</td>
<td>Vasomotor symptoms, dysmenorrhea</td>
</tr>
<tr>
<td>Chasteberry (Vitex agnus-castus)</td>
<td>Irregular menses, mastodynia</td>
</tr>
<tr>
<td>Dong quai (Angelica sinensis)</td>
<td>Vasomotor symptoms</td>
</tr>
<tr>
<td>Evening primrose oil (Oenothera macrocarpa)</td>
<td>Vasomotor symptoms</td>
</tr>
<tr>
<td>Ginkgo (Ginkgo biloba)</td>
<td>Memory loss, headache, dizziness, claudication</td>
</tr>
<tr>
<td>Ginseng (Panax ginseng, Panax quinquefolium, Eleutherococcus senticosus)</td>
<td>Fatigue</td>
</tr>
<tr>
<td>Licorice root (Glycyrrhiza glabra)</td>
<td>Vasomotor symptoms</td>
</tr>
<tr>
<td>Passion flower (Passiflora incarnata)</td>
<td>Nervousness, vasomotor symptoms</td>
</tr>
<tr>
<td>Phytoestrogens</td>
<td>Vasomotor symptoms</td>
</tr>
<tr>
<td>Sage (Salvia officinalis)</td>
<td>Vasomotor symptoms</td>
</tr>
<tr>
<td>St. John’s wort (Hypericum perforatum)</td>
<td>Depression, anxiety, dyspepsia</td>
</tr>
<tr>
<td>Sarsaparilla (Smilax sp.)</td>
<td>Vasomotor symptoms</td>
</tr>
<tr>
<td>Valerian root (Valeriana officinalis)</td>
<td>Sleep disturbance, vasomotor symptoms</td>
</tr>
</tbody>
</table>

*Symptoms listed indicate common usage. Herb may not have proven efficacy for the symptoms listed.

should not exceed 6 months at the recommended dose of 40 to 200 mg per day. A German study examining the effects of Remifemin (a trade name for a black cohosh preparation) did not show any stimulatory effects on estrogen-dependent breast tumor cell lines or the endometrium, suggesting that progestin therapy is not necessary to protect against endometrial proliferation. Unfortunately, no large, well-controlled, double-blinded studies currently exist that document either efficacy or safety of this treatment.

**Side effects and contraindications.** Side effects of black cohosh include gastrointestinal discomfort, and overdose may lead to vomiting, dizziness, visual disturbance, and bradycardia. Large doses have also been associated with miscarriage. Because of its estrogen receptor-binding affinity, it should be avoided in women with estrogen-responsive tumors, and more studies are needed to determine long-term safety. Black cohosh is not recommended for use in pregnant women, and should not be used in addition to estrogen therapy.

**Authors’ evaluation.** Black cohosh appears to be effective in reducing symptoms of hot flashes in women who choose not to take estrogen therapy. Large randomized trials, however, are needed prior to making standard recommendations regarding the use of black cohosh.

**Chasteberry**

Chasteberry (Vitex agnus-castus) has been used widely in Europe for treatment of hot flashes, breast tenderness, and dysmenorrhea, and it is recommended by the German Commission E for these disorders. However, there are no controlled studies documenting any effects in postmenopausal women, and there are no documented beneficial effects in the treatment of hot flashes. There are data supporting its use in reducing symptoms of breast tenderness in premenopausal women. Chasteberry is thought to act by decreasing the release of prolactin. A study in rat pituitary cells showed binding of the D2 receptors by an extract of the herb, therefore inhibiting prolactin secretion.

**Contraindications.** Due to the effects on dopaminergic receptors, chasteberry should not be used with other medications affecting dopamine or prolactin secretion, such as anti-psychotics, anti-Parkinsonian agents, or bromocriptine.

**Authors’ evaluation.** There is no clear evidence supporting a recommendation of chasteberry for the treatment of vasomotor symptoms of menopause. It may be useful in treating symptoms of breast tenderness experienced by some perimenopausal women.

**Dong Quai**

Dong quai (Angelica sinensis) has been used in traditional Chinese medicine for treatment of hot flashes and breast tenderness, as well as dysmenorrhea and irregular menses. The active compounds are thought to include coumarin derivatives, including oxypeucedanin, osthol, psoralen, and bergapten. It is commonly sold in the United States as a component of Rejuvex as well as singly by many manufacturers. It is thought that dong quai contains phytoestrogens and, in a low-estrogen environment such as at menopause, estrogenic activity will prevent vasomotor symptoms. A recent randomized, controlled study evaluated 91 women who were assigned either dong quai or placebo. Measurement of endometrial thickness, vaginal cytology, and menopausal symptoms did not demonstrate any difference between the two groups. There were no significant differences in serum estradiol, estrone, or sex hormone binding globulin levels. Interestingly, the traditional Chinese preparation did not use dong quai alone, but combined it with several other herbs (Radix angelicae sinensis, Radix paeoniae lactiflorae, Rhizoma ligustici, Rhizoma atractylodes, Rhizoma alismatis, Sclerotium poriae). This mixture has been reported to reduce the incidence of hot flashes by 70%. There are no studies documenting the effects of the other agents when used alone.

**Side effects and contraindications.** Dong quai can cause photodermatitis and phototoxicity if applied externally, and there are concerns regarding carcinogenicity of one of the active components, furanocoumarin bergapten. There is also a theoretical, although undocumented, risk of bleeding from the coumarin constituents. Dong quai is recognized to be an abortifacient, and should not be used in pregnancy.

**Authors’ evaluation.** There is no clear evidence supporting a recommendation of dong quai alone for treatment of vasomotor symptoms of menopause. Its use in combination with other herbal agents also has not been evaluated sufficiently to support a recommendation for such use.

**Evening Primrose Oil**

Evening primrose oil (Oenothera macrocarpa) has been studied for use in a wide variety of disorders, including atopic dermatitis, rheumatoid arthritis, and chronic fatigue syndrome. It has also been used in treating symptoms of premenstrual syndrome, including mastalgia. It is thought to be a safe alternative to estrogen therapy in women who suffer vasomotor symptoms at menopause, and it is often used in menopausal
women who have had breast cancer who cannot take estrogen. However, the data supporting its use in the above-mentioned disorders are contradictory at best.

The active ingredient in evening primrose oil is thought to be gamolenic acid, a metabolite of linoleic acid, an essential fatty acid. It is believed that metabolites of gamolenic acid may elevate prostaglandin levels and decrease the affinity of estrogenic compounds for estrogen receptors. A small study published in 1994 looked at the effect of gamolenic acid from evening primrose oil versus placebo on the incidence of vasomotor symptoms in menopausal women. No beneficial effect of evening primrose oil was demonstrated.

**Side effects and contraindications.** Evening primrose oil appears to be relatively safe, with slight nausea as a side effect in a small trial and sporadic reports of headache and softening of the stools. Another study revealed a possible risk of inflammation and immunosuppression with prolonged use for greater than 1 year. Gamolenic acid has also been noted to lower the seizure threshold. Therefore, evening primrose oil should be avoided in patients with seizure disorders or in combination with other medications (eg, buproprion, phenothiazines) that may have the same action on the seizure threshold.

**Authors' evaluation.** There is no clear evidence supporting a recommendation of evening primrose oil for reducing vasomotor symptoms of menopause.

**Ginkgo**

Ginkgo (Ginkgo biloba) is a plant extract that is widely used both in Europe and the United States. Its active ingredients are thought to be flavonoids, terpenoids, and organic acids that act as free radical scavengers. Ginkgo is commonly thought to improve vascular flow and is used in the treatment and prevention of peripheral vascular disease and diseases of cerebral blood flow, including a variety of dementias. Most trials have been conducted in Germany using a standardized ginkgo extract (Egb761), and the Commission E monographs state that the extract is safe and effective for circulatory disturbances and may improve memory. A randomized, controlled trial in the United States in 1997 demonstrated stabilization and occasional improvement in cognitive functioning in patients with mild-to-moderate dementia (eg, Alzheimer's or multi-infarct type). Another trial in healthy elderly patients demonstrated improved cognitive function with the use of ginkgo extract. There are no data that support the belief that ginkgo helps improve cognition or memory in younger people, and no studies to support its use to treat memory loss associated with menopause.

**Side effects and contraindications.** It is generally well-tolerated. However, there are isolated reports of bleeding in patients taking Ginkgo biloba. Therefore, patients who are taking aspirin or warfarin or those scheduled for surgical procedures should avoid using ginkgo.

**Authors' evaluation.** There is no evidence to support the use of ginkgo to treat hot flashes or memory loss associated with menopause.

**Ginseng**

Ginseng is widely used in the United States as an energy booster, and it has been used in China for thousands of years as a tonic. Germany's Commission E recommends it as a treatment for menopausal disorders.

It is difficult to assess the action of ginseng due to the wide variety of products that are available for use. American ginseng (Panax quinquefolius), Chinese ginseng (Panax ginseng), and Siberian ginseng (Eleutherococcus senticosus), the last of which is not a true ginseng (ie, not a Panax species), are all sold as "ginseng." A recent study using thin-layer chromatography found that only 25% of the commercially available products labeled as ginseng contained true ginseng. Therefore, observational studies of ginseng are of little use in determining either its safety or efficacy.

**Clinical trials.** A Swedish study evaluated the estrogenic effect of Ginsana (a preparation of Panax ginseng) and found no difference in frequency of hot flashes when compared with placebo, but noted a significant effect on improvement in well-being. Another randomized, controlled trial in 625 patients noted an increase in quality-of-life scores in those who used ginseng.

**Side effects and contraindications.** Side effects of true ginseng include insomnia, tachycardia, palpitations, and hypertension. Mastalgia and postmenopausal bleeding have been reported, and a case of diffuse mammary nodularity also occurred. Estrogen-like effects on the uterus, vagina, and breasts have also been documented. Ginseng extract is thought to compete with estrogen binding sites and human myometrial cytosol. Because of its action as a mild stimulant, ginseng should not be used in patients with cardiovascular disease (including hypertension) or those with psychiatric disorders (eg, bipolar disorder). Ginseng may interact with warfarin, and caused a prolonged international normalized ratio in one case.

**Authors' evaluation.** True ginseng appears to be generally safe and may improve the sense of well-being in a woman in perimenopause. However, there are no data to support a recommendation of its use to treat the vasomotor symptoms of menopause.

(continued on page 40)
Licorice Root

Although licorice root (Glycyrrhiza glabra) has been touted as a “natural” source of estrogen and has been suggested as a treatment for symptoms of menopause, there are no data in the scientific literature to support this claim. Glycyrrhizin and glycyrrhetic acid, both components of licorice root, bind to glucocorticoid and mineralocorticoid receptors. The reported affinity for estrogen receptors is very weak. Components of licorice root have been found to bind to estrogen receptors on breast cancer cells in vitro. It has also been found to be an estrogen antagonist, and its action may depend on the hormonal milieu. The estrogen action may be due to its isoflavone content, and these compounds tend to act as estrogen antagonists in a low estrogen setting, and as estrogen agonists in a setting of high estrogen levels.

Side effects and contraindications. The best documented effect of long-term or high-dose use of licorice root is the development of primary hyperaldosteronism, which can lead to hypertension, hypokalemia, and sodium retention. Patients with hypertension or other cardiovascular diseases should avoid the use of licorice root. Because of the potential estrogen interaction, it should be avoided in patients who are already on estrogen therapy.

Authors’ evaluation. The potential side effects of licorice root and the lack of evidence of its efficacy do not support a recommendation of its use in the treatment of menopausal symptoms.

Passion Flower

Passion flower (Passiflora incarnata) has been recommended as a therapy for insomnia, muscle aches, and anxiety, and it is recommended by the Commission E for therapy for hot flashes. There are no scientific data to support its use for vasomotor symptoms. No significant human toxicity has been reported.

Authors’ evaluation. Although passion flower appears safe, there is no clear evidence supporting a recommendation of its use in the treatment of menopausal symptoms.

Phytoestrogens

Phytoestrogens are chemical compounds found in plants. When ingested, these compounds have an estrogenic or antiestrogenic effect. They act as selective estrogen receptor modulators, and their estrogenic activity is tissue-specific and dependent on the endogenous hormonal milieu. In states of high estrogen concentration, phytoestrogens act as estrogen antagonists and may block the effects of endogenous estrogen or estrogen therapy. In states of low estrogen concentration, they act as weak estrogens, stimulating estrogen receptors, although not to the same degree as endogenous estrogens.

Categories. Phytoestrogens are abundant in many foods, and are the subject of numerous scientific studies. Some commonly studied phytoestrogens are isoflavones, lignans, and coumestans, which are found in foods such as legumes, grains, fruits, and vegetables. Interest in these compounds was generated when it was observed that cardiovascular disease and hormone-dependent neoplasms were lowest in cultures who consumed diets rich in isoflavones. Dietary phytoestrogens play an important role in reducing the risk of certain cancers, cardiovascular disease, and menopausal symptoms.

I soflavones. The isoflavones are the most highly researched type of phytoestrogen. Plants rich in isoflavones include legumes (eg, soybeans) and the leaves of red clover. Many products containing isoflavone extracts are promoted for the management of hot flashes. However, most clinical trials investigating the efficacy of these compounds have looked at dietary soy protein intake rather than supplements containing isolated isoflavone extracts. It is unclear whether these supplements have the same effect as dietary intake of soy protein.

Clinical trials. Clinical trials evaluating the role of isoflavones in the treatment of hot flashes reveal a 30% to 46% reduction in the severity of hot flashes. Efficacy lies somewhere between placebo and standard low-dose estrogen therapy. In one study, 60 g/day of isolated soy protein powder was given to premenopausal women. After 12 weeks, the treated women had a 45% reduction in daily hot flashes, compared with a 30% reduction in women taking placebo.

Risks and contraindications. Because isoflavones and other phytoestrogens bind estrogen receptors, they may promote the growth of estrogen-dependent tumors. The effect on tumor growth in humans has not yet been studied. Therefore, it is prudent to avoid use of phytoestrogen supplements in women with breast or endometrial cancer, or who are at high risk for breast cancer due to family history.

Also, patients should be cautioned against taking phytoestrogen supplements along with standard estrogen replacement therapy. Infants, children, and pregnant women should also avoid supplements, because their safety has not yet been documented.

Authors’ evaluation. Increasing the amount of dietary phytoestrogen intake, by adding foods rich in isoflavones and lignans, appears to be a relatively safe
and beneficial strategy that may improve vasomotor symptoms of menopause. There is no clear evidence at this time supporting the recommendation of isolated isoflavone supplements in the treatment of menopausal symptoms. Optimal dosing of soy supplements remains unknown. A reasonable approach to increasing dietary soy protein is to consume the equivalent of 60 to 80 grams of soy protein daily.

**Sage**

It has been reported in the lay press that sage (Salvia officinalis) relieves vasomotor symptoms, and it has been used traditionally for the treatment of digestive disorders and sore throat. In 1998, a small, uncontrolled study in Italy (N = 30) looked at the effects of sage and alfalfa in the treatment of vasomotor symptoms in menopausal women. Complete resolution of night sweats and hot flashes occurred in two thirds of women treated with the herb combination, with no significant change in LH, FSH, prolactin, estradiol, or thyroid-stimulating hormone levels from baseline. The lack of placebo controls and the use of a combination of herbs make it difficult to determine the effect of sage alone.

**Risks.** Sage oil is toxic and should not be ingested, therefore, sage extracts should be used with caution.

**Authors’ evaluation.** There is no clear evidence supporting a recommendation of sage in the treatment of menopausal symptoms.

**St. John’s Wort**

St. John’s wort (Hypericum perforatum) is the most commonly prescribed antidepressant in Germany, and it is widely used in the United States for treatment of mild depression. It contains a mixture of many components, including flavonoids, xanthose, and naphthodianthrons. The mechanism of antidepressant action is unclear, but it has been proposed to be multifactorial, including monoamine oxidase inhibitor (MAOI)–like properties and selective serotonin reuptake inhibitor (SSRI)–like properties, as well as other mechanisms.

In 1996, a meta-analysis of 23 randomized, controlled trials found that St. John’s wort is an effective and safe treatment for mild-to-moderate depression when compared with placebo. A trial comparing St. John’s wort with the SSRI fluoxetine and with placebo is currently ongoing in the United States. The recommended dosing of St. John’s wort for depression is 300 mg three times daily of a standardized extract of 0.3% hypericum.

Although treatment of menopausal symptoms is not listed in the Commission E monograph for St. John’s wort, some use it to treat concomitant mood disorders, and treatment of mild depression which may ameliorate the patient’s emotional response to vasomotor and other menopausal symptoms.

**Risks and contraindications.** St. John’s wort may cause photosensitivity, and patients should be warned to use sun protection while taking the medication. St. John’s wort is contraindicated in pregnancy because of mutagenic properties. Because of possible MAOI or SSRI actions, use with other MAOIs, SSRIs, and sympathomimetic amines (eg, pseudoephedrine hydrochloride) is not recommended due to a risk of serotonin syndrome. A recent study found decreased bioavailability of digoxin when taken in combination with St. John’s wort. Therefore, this herb should be avoided in patients taking digoxin. In addition, it can interact with cyclosporin, oral contraceptives, and many antiretroviral agents, leading to significant consequences (including transplant organ rejection); and therefore should be avoided in persons taking these agents.

**Authors’ evaluation.** St. John’s wort may be useful to treat mood disorders concomitant with menopause. However, there is no evidence to support a recommendation of its use as primary therapy for menopause.

**Sarsaparilla**

Sarsaparilla (Smilax species) has been touted as a treatment for the vasomotor symptoms associated with menopause and as a natural source of estrogen. It has also been used in Saudi Arabia for treating rheumatic complaints. It is a commonly used flavoring agent in soft drinks. It does not appear to have any significant toxicities other than gastrointestinal upset when ingested in large amounts. However, no scientific evidence supports its use as a menopausal therapy.

**Authors’ evaluation.** There is no scientific evidence to support a recommendation of sarsaparilla as a treatment for menopausal symptoms.

**Valerian Root**

Valerian root (Valeriana officinalis) has been used for centuries as a sedative and sleep-promoting agent. Constituents of the root promote the release of gamma aminobutyric acid and bind the same receptors as benzodiazepines. The Commission E monographs recommend valerian root as a safe and effective treatment for vasomotor symptoms of menopause. However, no published data exist to support the use of valerian in treatment of hot flashes.

**Drug interactions and contraindications.** Some components of valerian root have cytotoxic and mutagenic activity in vitro, and it is therefore contraindicated in pregnancy. Interaction with alcohol and barbiturates...
may occur, so concomitant use should be avoided. No significant side effects have been reported with valerian use, and it appears to be safe to use as a mild sedative.

**Authors' evaluation.** There is no scientific evidence to support a recommendation of valerian root as a treatment for menopausal symptoms.

**SUMMARY**

It is encouraging that scientific studies of a few herbal preparations have shown some benefit in the treatment of the symptoms of menopause (Table 2). However, many traditional menopausal herbal therapies have fallen short of expectations in treating vasomotor and other menopausal symptoms after being put through rigorous scientific study (Table 3). Although traditional Chinese medicine (as well as traditional therapies in other cultures) often uses a combination of herbs to treat hot flashes, data supporting the use of these are not currently available and usually involve a number of herbal combinations rather than single agents.

Because of the paucity of well-controlled, long-term trials, advising individual patients about the use of herbal supplements is a matter of judgment by the physician. It is important to discuss use of herbal therapies with all patients because drug-herb or herb-herb interactions may occur. Patients should understand that just because a therapy is “natural” does not necessarily mean that it is safe. In the authors’ opinion, herbal treatments should not be used in pregnancy or during lactation because of the lack of safety data.

Clearly, further randomized and controlled studies are needed to document long-term safety and efficacy of these treatments. It is hoped that the formation of the National Center for Complementary and Alternative Medicine by the National Institutes of Health will provide much needed financial and educational support toward this goal.

**REFERENCES**


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**Table 2.** Herbs with Documented or Likely Benefit in Reducing Menopausal Symptoms

<table>
<thead>
<tr>
<th>Herb</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black cohosh (Cimicifuga racemosa)</td>
<td>Reduction of vasomotor symptoms</td>
</tr>
<tr>
<td>Dietary phytoestrogens/ isoflavones</td>
<td>Reduction of vasomotor symptoms</td>
</tr>
<tr>
<td>Ginkgo (Ginkgo biloba)</td>
<td>Improved cognitive function in the elderly</td>
</tr>
<tr>
<td>Ginseng (Panax ginseng, <em>Eleutherococcus senticosus</em>)</td>
<td>Increased sense of well-being</td>
</tr>
<tr>
<td>St. John’s wort (Hypericum perforatum)</td>
<td>Reduction of symptoms of depression</td>
</tr>
<tr>
<td>Valerian root (Valeriana officinalis)</td>
<td>Mild sedative or anxiolytic</td>
</tr>
</tbody>
</table>

**Table 3.** Herbs with No Clearly Demonstrated Benefit in Treatment of Menopausal Symptoms

<table>
<thead>
<tr>
<th>Herb</th>
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<tbody>
<tr>
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</table>


52. NIH to explore St. John’s wort. Science 1997;278:391.

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