This document has been written for clinicians. The content was developed by the Integrative Medicine Program, Department of Family Medicine, University of Wisconsin-Madison School of Medicine and Public Health in cooperation with Pacific Institute for Research and Evaluation, under contract to the Office of Patient Centered Care and Cultural Transformation, Veterans Health Administration.

Information is organized according to the diagram above, the Components of Proactive Health and Well-Being. While conventional treatments may be covered to some degree, the focus is on other areas of Whole Health that are less likely to be covered elsewhere and may be less familiar to most readers. There is no intention to dismiss what conventional care has to offer. Rather, you are encouraged to learn more about other approaches and how they may be used to complement conventional care. The ultimate decision to use a given approach should be based on many factors, including patient preferences, clinician comfort level, efficacy data, safety, and accessibility. No one approach is right for everyone; personalizing care is of fundamental importance.
WHOLE HEALTH: CHANGE THE CONVERSATION
Menopause
Clinical Tool

Menopause is the cessation of menstrual cycles, occurring for most women between the ages of 47 and 55 years. During perimenopause, as estrogen levels decrease, women often experience hot flashes/flushes, night sweats, vaginal dryness, and mood swings. While some women experience debilitating symptoms, others transition through this time with few complaints. Unless precipitated by surgery or illness, menopause is part of the natural aging process. As such, women should be reminded to consider this time as an opportunity to celebrate their beauty, strength, and vitality by recommitting to a healthy lifestyle.

Diagnosis

Menopause is a retrospective, clinical diagnosis made after 12 months of amenorrhea, resulting from the cessation of ovarian follicle production. At this time, follicle-stimulating hormone (FSH) levels rise significantly in an attempt to stimulate follicle production. Although an elevated FSH level is diagnostic of menopause, FSH levels are not routinely checked, as the level varies greatly in the months leading up to menopause due to irregular and missed menstruation. Clinicians should consider checking FSH and estradiol levels for symptomatic women less than 40 years old with missed periods, in whom premature ovarian failure is suspected.1-3

Controversy exists regarding the practice of measuring hormone levels for the diagnosis, treatment, and monitoring of menopause and its symptoms. Testing may not be reliable depending on the source (serum, saliva, or urine) and the method of hormone replacement administration. Because of the lack of research, routine testing is likely unnecessary for most women.4 The diagnosis of menopause should be made based on clinical findings; treatment is based on symptoms.

A Healthy, Comprehensive Approach to Menopause

Before addressing specific symptoms, clinicians should review the importance of a comprehensive approach to wellness during the menopausal transition. Cardiac and bone health should be addressed because of the increased risk of coronary artery disease and osteoporosis.

Diet

A healthy diet is always important, especially during menopause.

- Review a healthy diet to maintain a healthy body weight. For many, the Mediterranean diet provides great guidance and has been shown to decrease the rates of all-cause mortality.5 See the Food and Drink module. This approach to eating incorporates whole, unprocessed foods consisting of primarily fruits and vegetables; whole grains; low-fat protein from fish, legumes, and nuts; and healthy monounsaturated fats from olive oil.
• Encourage foods high in calcium, with the goal of 1,000-1,200 milligrams daily as recommended by the Institute of Medicine. It is best to get calcium from dietary sources (see Table 1) rather than supplements if possible, because of conflicting evidence that suggests calcium supplements may increase the rate of heart attacks. However, the benefits of calcium supplementation may outweigh the risks for women with a history of a fracture, multiple risk factors for osteoporosis, and difficulty obtaining calcium from their diet.

<table>
<thead>
<tr>
<th>Food</th>
<th>Amount of calcium (milligrams/serving)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yogurt, low-fat, 8 ounces</td>
<td>315-415</td>
</tr>
<tr>
<td>Mozzarella, 1.5 ounces</td>
<td>330</td>
</tr>
<tr>
<td>Sardines, canned 3 ounces</td>
<td>325</td>
</tr>
<tr>
<td>Cheddar cheese, 1.5 ounces</td>
<td>300</td>
</tr>
<tr>
<td>Cow’s milk, 8 ounces</td>
<td>250-300</td>
</tr>
<tr>
<td>Orange juice, calcium fortified, 6 ounces</td>
<td>250</td>
</tr>
<tr>
<td>Tofu, with calcium sulfate, ½ cup</td>
<td>140-250</td>
</tr>
<tr>
<td>Salmon, canned, 3 ounces</td>
<td>180</td>
</tr>
<tr>
<td>Cottage cheese, 1 cup</td>
<td>140</td>
</tr>
<tr>
<td>Kale, 1 cup</td>
<td>100</td>
</tr>
<tr>
<td>Almonds, 1 ounces (22 almonds)</td>
<td>75</td>
</tr>
<tr>
<td>Flaxseed, 1 tablespoon</td>
<td>25</td>
</tr>
<tr>
<td>Broccoli, ½ cup</td>
<td>20</td>
</tr>
</tbody>
</table>

• Consider adding sources of phytoestrogens, including soy and flax, for their health benefits and possible improvement in troublesome hot flashes. See the Phytoestrogens clinical tool.

Supplements

Note: Please see the module on Dietary Supplements for more information about how to determine whether or not a specific supplement is appropriate for a given individual. Supplements are not regulated with the same degree of oversight as medications, and it is important that clinicians keep this in mind. Products vary greatly in terms of accuracy of labeling, presence of adulterants, and the legitimacy of claims made by the manufacturer.

Although many supplements can be beneficial during menopause, assessing for adequate vitamin D supplementation and omega-3 fatty acid intake is especially important during this time.

• Vitamin D—The Institute of Medicine recommends 600 IU daily for women <70 years and 800 IU daily for women >70 years. Consider checking a 25-hydroxy vitamin D level or supplementing with higher doses of 1,000-2,000 IU daily for women at higher risk of deficiency (northern/southern climates, darker skin, elderly) to support bone health.
• **Omega-3 fatty acids**—The American Heart Association (AHA) recommends eating two, 3.5-ounce servings of fatty fish a week because of the health benefits of the omega-3 fatty acids DHA (*docosahexaenoic acid*) and EPA (*eicosapentaenoic acid*). In those with documented coronary heart disease, the AHA recommends consuming 1 gram of combined EPA and DHA daily, either through fish or in supplement form. Assess dietary intake of fish and omega-3 fatty acids, considering supplementation for those with difficulty obtaining omega-3’s through their diet. Other great sources include walnuts, ground flaxseed, and leafy green vegetables.

**Movement**
We have yet to find a condition that exercise does not help! Regular exercise decreases the risk of heart disease and breast cancer, improves sleep, reduces stress, and may help with hot flashes.

- Prescribe moderate exercise for at least 30 minutes on most days of the week. Exercise should include muscle strengthening, weight-bearing activities, and yoga or tai chi to strengthen the mind-body connection. A Cochrane review in 2011 found that non-weight-bearing, high-force activities such as progressive resistance strength training was most effective in increasing femur neck bone density, whereas combinations of aerobic activity and weight-bearing and resistance exercises improved bone density of the spine.

**Lifestyle**
Everyday behaviors, patterns, and choices influence how we feel.

- Assess for substance use or misuse, including tobacco, drugs, and excessive alcohol intake.
- Support a healthy sleep-wake cycle. See [Recharge module](#) and [Hints for Encouraging Health Sleep](#) clinical tool.
- Encourage use of light, loose-fitting clothing in layers to adjust to changing body temperatures.
- Evaluate for healthy stress management. The body’s stress hormone, cortisol, is made from precursors that include progesterone. With an increasing need for cortisol production because of high stress, progesterone levels may decrease, disrupting the balance of estrogen and progesterone in the body. Review approaches for decreasing stress, in addition to coping techniques, relaxation exercises, and mind-body practices.

**Power of the mind**
Encourage exploration of the mind-body connection to bring awareness to menopause as a life transition.

- Explore helpful tools including breathing exercises, mindfulness meditation, yoga, tai chi, or guided imagery. See clinical tools, [Breathing](#), [Meditation](#), [Yoga: Looking Beyond “The “Mat,”](#) and [Imagery](#).
“Mastering Menopause,” a CD by Belleruth Naparstek, includes guided imagery practices to help with sleep, reinforce self-esteem, and redefine beauty and aging.

**Spirituality**
Encourage a connection in life that gives a greater sense of meaning and purpose.

- Explore helpful tools including journaling, meditation, or connecting with religious or spiritual communities.
- Suggest connecting with wise, older women who have transitioned into and through menopause.

**Approaches to Treating Menopausal Symptoms**
Although hormone replacement therapy (HRT) is an effective treatment for many menopausal symptoms, it also is associated with potential risks. Many therapies, including botanicals and lifestyle changes, offer alternative approaches that may improve symptoms with less risk. For a more thorough discussion on hormone replacement, see the clinical tool on [Hormone Replacement Therapy](#).

**Hot flashes**
Many women experience hot flashes/flushes during perimenopause and menopause. For some, they can be debilitating, and for others, they are better tolerated when viewed as a surge of heat or power. In some cultures, no word even exists for hot flash. Experiences may vary based on diet, lifestyle, or cultural perception.

- **Black cohosh** (*Cimicifuga racemosa*)—Black cohosh is an herb with estrogen-like properties. One study on isopropanolic black cohosh extract demonstrated significant reductions in hot flashes. Studies on other forms of black cohosh have been less consistent. A Cochrane review in 2012 concluded that the evidence for use of black cohosh for menopausal symptoms was insufficient; however, “there is adequate justification for conducting further studies in this area.” The standard dose of extract is 40 milligrams twice daily, standardized to 1 milligrams of triterpenes per 20 milligrams. Cost is about $15 for a 1-month supply. Side effects are rare, and the most common is mild gastrointestinal discomfort. Because a small number of women have experienced liver problems while taking black cohosh, consider monitoring liver function tests and avoid use in women with liver disease. Women with estrogen-sensitive conditions including breast, ovarian, and uterine cancer; endometriosis; and fibroids should not use black cohosh at this time due to conflicting evidence regarding safety. The use of black cohosh for longer than 6 months has not been studied, including its effects on endometrial hyperplasia. More information is available in the clinical tool [Top Supplements for Every Clinician to Know](#).

- **Phytoestrogens**—Phytoestrogens are plant compounds with structures similar to estrogen, resulting in the ability to cause estrogen-like effects on the body. Research on phytoestrogens has been inconsistent in showing improvement in hot flashes. A Cochrane review in 2007 concluded that phytoestrogen treatments were not
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effective in alleviating menopausal symptoms.\textsuperscript{14} The North American Menopause Society's Isoflavones Report from 2011 concluded, "there are mixed results of the effects on midlife women. Soy-based isoflavones are modestly effective in relieving menopausal symptoms."\textsuperscript{15}

- A study by Newton in 2006 attempted to compare the use of black cohosh, dietary soy, and HRT for treatment of hot flashes over a year's duration. The results showed that HRT significantly improved hot flash symptoms, while there was no difference between black cohosh, dietary soy, and placebo. Some women, however, may find that eating a diet high in phytoestrogens helps their menopausal symptoms in addition to providing other health benefits. See the clinical tool **Phytoestrogens** for increasing dietary intake. For more information on the use of soy, a particular type of phytoestrogen and its use in breast cancer, see **Cancer Care** module.

- **Red clover** (\textit{Trifolium pratense})—Red clover contains isoflavones, a type of phytoestrogen. Evidence for the use of red clover for hot flashes is inconclusive. Some studies show that taking red clover for 3-12 months does not improve hot flashes. The suggested dose is 40-160 milligrams daily of standardized isoflavones. Side effects are rare. Until further research is completed, it should be avoided in women with hormone-sensitive conditions due to safety concerns.

- **Dong quai** (\textit{Angelica sinensis})—Dong quai is a root used in traditional Chinese medicine (TCM). Although often recommended, dong quai has not been shown to decrease hot flashes in menopausal women.\textsuperscript{16} In TCM, it is often used in combination with other herbs that together may be helpful for menopausal symptoms. Consider a consultation with a TCM practitioner if interested.

- **Exercise**—Regular exercise has significant benefits for overall health and well-being. However, a Cochrane review in 2007 concluded the evidence was insufficient to determine the effectiveness of exercise on hot flashes.\textsuperscript{17} In a recent study, regular exercise did not alleviate hot flashes, but did result in improved sleep and mood.\textsuperscript{18}

- **Other therapies**—Although extensive research has not yet been done, some women find significant benefit from alternative therapies and approaches such as acupuncture, energy work, yoga, traditional Chinese medicine, or Ayurveda for treatment their menopausal symptoms. The evidence specifically for the practice of using breath work in treatment of menopausal symptoms is inconclusive.

- **Medications**—Multiple prescription medications have been show to help with menopausal symptoms, particularly hot flashes. Consider a trial of clonidine, gabapentin, or a selective serotonin reuptake inhibitor (SSRI)—their evidence will not be reviewed here.

**Mood swings and irritability**
Menopause is often a time of transition for most women, and life stressors in combination with changing hormone levels can result in some women feeling more sad and irritable.
Healthy eating, regular exercise, and self-care are important to maintaining a stable mood. There are supplements that may also help.

- **St. John’s wort** (*Hypericum perforatum*)—Commonly used for depression, St. John’s wort has been shown to improve mood and climacteric complaints in menopausal women. In one particular study, women using the combination of St. John’s wort and black cohosh reported improved scores for general menopausal symptoms and depression when compared to placebo. The suggested dose is 300 milligrams three times daily, standardized to 0.3% hypericin or 4%-5% hyperforin. Cost is about $10 for a 1-month supply. St. John’s wort is generally well tolerated, but should be used with caution in combination with other medications metabolized through the P450 system.

- **Ginseng** (*Panax ginseng*)—Ginseng is an herb commonly used to improve vitality. Menopausal women taking ginseng report improved mood and well-being, although no change in hot flashes. The suggested dose is 100-300 milligrams daily standardized to 4%-6% ginsenosides. Cost is about $10-$15 for a 1-month supply. Side effects include gastrointestinal upset and low blood sugars. Some types of ginseng can decrease the effectiveness of warfarin and should be used with caution in combination. Until further research, it should be avoided in women with hormone-sensitive conditions.

**Vaginal dryness**
As estrogen levels decrease in menopause, some women may experience vaginal dryness. Intravaginal estrogen will significantly improve dryness, but there are many other products and interventions that can help.

- **Vaginal moisturizers**—Women with vaginal dryness should use a vaginal moisturizer daily to maintain moisture and flexibility. Women should massage the product in small, circular strokes into the inner vagina and outer vulvar region once a day for five minutes, using a vibrator for internal placement and massage. Waiting two to four weeks after starting a vaginal moisturizing regimen may be necessary before resuming sexual intercourse.
  
  o When having intercourse, women should also be counseled to use a lubricant to reduce discomfort from friction. Lubricants with glycerin should be avoided if prone to yeast infections. Avoid petroleum jelly and oil-based lubricants because the vagina cannot clear oils and these substances can dissolve the latex in condoms.

- **Vaginal rejuvenation exercises**—Regular massage of the genitals, as described above, improves blood flow and lubrication. Kegel exercises, which strengthen the pelvic floor muscles, can also be helpful. Performing these exercises on a regular basis increases blood flow to the genital tissues, improving lubrication.

- **Herbs and supplements**—Some herbs promote the release of nitric oxide from vascular endothelium, necessary for the production of natural vaginal lubrication.
Although these herbs have not been studied specifically for vaginal dryness, they are known to increase the activity of nitric oxide.

- **Ginkgo** (*Ginkgo biloba*) is known to improve nitric oxide vasodilation. Consider a trial of extract 60 milligrams twice daily. If no improvement, the dose can be increased to 120 milligrams twice daily. Because ginkgo interferes with platelet function, use with caution in combination with warfarin, aspirin, or NSAIDs.

- **Ginseng** (*Panax ginseng*) is commonly used to improve vitality, and is often taken by menopausal women to improve mood and well-being. Ginseng also helps promote nitric oxide release. The suggested dose is 100-300 milligrams daily standardized to 4%-6% ginsenosides. Side effects include gastrointestinal upset and low blood sugars. Some types of ginseng can decrease the effectiveness of warfarin and should be used with caution in combination. Until further research, it should be avoided in women with hormone-sensitive conditions.

- Some women have found benefit from other approaches. Vitamin E oil, obtained from puncturing a capsule containing 400-800 IU, can be applied to vaginal tissues at bedtime. Oatstraw or oat seed, historically used for female reproductive problems, can be added to baths or can be found in commercial vaginal creams. Finally, creams made from wild yam are promoted as a natural source of progesterone and can be massaged into the vaginal tissue. No research has confirmed the benefits of these approaches, and they should be tried with caution.

- **Lifestyle modifications**—Healthy eating and regular exercise promote blood flow to the genital region, which improves vaginal dryness. Chemicals or products such as douches or perfumed hygiene products should be avoided. Counsel against tobacco and significant alcohol use because both can worsen vaginal dryness and decrease sexual arousal. Finally, at least one orgasm a week is recommended for women, either by herself or with someone else, to encourage healthy blood flow and improve nerve sensation.

- **Sex and menopause**—Despite hormonal changes, a healthy sex life is possible during and after menopause. Encourage women to actively treat vaginal dryness, to touch and be touched, and to have sex regularly. Weekly orgasms help maintain healthy blood flow and sensation. For more information about sex and menopause, check out the book *Better Than I Ever Expected* by Joan Price.
### Additional Resources

#### Books

#### Online
- A Woman’s Touch – Retail and information [https://sexualityresources.com/]()


