



## Menopause

Most women entering menopause are filled with questions and concerns. What are the associated health issues? What can be done to maintain our physical and emotional health? Would menopausal hormone therapy be helpful? This guide is intended to answer some of these questions.

### Menopause: Commonly Asked Questions

#### What is menopause?

Menopause is the cessation of menstruation. A definitive “diagnosis” of menopause can be made only after the fact – when a woman has gone one full year without a menstrual period. In the United States, the average age of menopause is 51; however, it can occur earlier or later. Cigarette smokers may undergo menopause a little earlier. Eight percent of women will go through menopause before age 40. For example, individuals who have received some types of chemotherapy or who have had their ovaries surgically removed no longer make the hormones necessary for menstruation. Some women have a medical condition called premature ovarian failure that also causes early menopause. The average woman will live more than one-third of her life past menopause.

#### What is perimenopause?

Perimenopause is the time period from when a woman’s menses first become irregular until one year after the final menstrual period. This transition can take many years. During the perimenopause, many women experience some of the symptoms of menopause.

#### Why does menopause occur?

A woman’s ovaries produce estrogen. As a woman’s eggs decrease in number over time, there is a decline in the amount of estrogen secreted. This loss of eggs and decline in estrogen levels causes menstruation to become infrequent and ultimately to stop. It also causes an increase in follicle-stimulating hormone (FSH), which is an attempt by the body to get the ovaries to produce more eggs and hence more estrogen. Sometimes a blood test to check the FSH level will be performed to verify that menopause has occurred. FSH is elevated (greater than 30 IU/ml) after menopause while the estradiol (estrogen) level is low.

#### What are the symptoms of menopause? What can I do?

Many of the symptoms of menopause can be linked to lowered estrogen levels.

- **Hot flashes:** Hot flashes are sudden periods of sweating, flushing, and feeling overheated. They can be followed by a period of being cold and clammy. When they occur at night, hot flashes (or night sweats) can interfere with an individual’s sleep, which can then cause fatigue, cognitive impairment, and mood disturbances. Wearing cotton clothing and layering clothing can help. Cool showers or baths, fans, and air conditioners can also provide relief. If your symptoms are severe and disabling, discuss with your physician medications that can relieve hot flashes.
- **Vaginal dryness:** Lowered levels of estrogen cause dryness and thinness of the vaginal wall. These vaginal changes can sometimes cause itchiness, burning, and pain with intercourse. This vaginal dryness and the change in the acidity of the vaginal environment can predispose women to urinary tract infections. Vaginal moisturizers (such as Replens®) or estrogen vaginal cream or rings will restore vaginal elasticity and moisture after one to three

months. Lubricants may also make intercourse more comfortable.

- **Urinary tract infections:** The lining of the urethra, or the bladder outlet, also thins during menopause. This can predispose women to urinary tract infections and may also contribute to urinary incontinence.
- **Cognitive impairment:** Many women complain of decreased memory and slowed thought processes during menopause. Most experts believe that interruption of sleep by hot flashes is the cause of decreased memory in menopausal women.
- **Depression and mood disturbances:** Many women experience mood changes and symptoms of depression during menopause. Whether these symptoms are a result of decreased estrogen levels, sleep deprivation, the many life changes that occur around menopause, or a combination of these factors is unclear. Women who are experiencing depression should discuss their symptoms with their physician, as there are many effective treatments available.

## Associated Medical Conditions

In addition to the symptoms of menopause, other medical conditions may be accelerated after the cessation of menses.

### Osteoporosis

Osteoporosis is a “bone thinning” disease. This thinning can result in brittle bones that are susceptible to fracture. We all reach our peak bone mass around age 30. After that time, our bones start getting thinner. Estrogen helps to maintain bone strength. During menopause, when the estrogen level starts to drop, bone loss can increase. Calcium, vitamin D, exercise, and certain medications can contribute to slowing bone loss.

There are steps you can take to prevent or slow down osteoporosis, including:

- **Lifestyle modifications:** Ensure adequate calcium and vitamin D intake. Menopausal women should consume 1,200 mg of calcium and between 400-800 IU of vitamin D daily. Weight-bearing exercise, such as walking, running, aerobics, or kickboxing, can also help prevent bone loss. Unfortunately, swimming and bicycling, while providing a good cardiovascular workout, do not prevent bone loss. Smoking and excessive alcohol intake can hasten bone loss and should be avoided.
- **Medications:** FDA-approved medications for the prevention of osteoporosis include estrogen (e.g. Estrace®, Premarin®), alendronate (Fosamax®), risendronate (Actonel®), ibandronate (Boniva™), and raloxifene (Evista®). FDA-approved medications for the treatment of osteoporosis include alendronate (Fosamax®), risendronate (Actonel®), ibandronate (Boniva™), calcitonin (Miacalcin®), raloxifene (Evista®), and teraparotide (Forteo®). Most experts do not recommend estrogen as a first-line strategy to prevent osteoporosis in women who are not also having moderate-to-severe hot flashes.

### Cardiovascular Risk

Heart disease risk rises after menopause. Menopause eliminates the earlier “female advantage” for the heart.

In the past, observational studies suggested that long-term menopausal hormone therapy – also known as hormone replacement therapy (HRT) – may reduce coronary artery disease by 40-50 percent. These studies take a group of people, follow them over time, and then compare women who choose to take hormone therapy with women who do not. The problem with these types of studies is that women who choose to take hormone therapy may also be making other lifestyle decisions to reduce their risk of heart disease.

More recently, however, results of randomized controlled trials, in which investigators divide women into two groups and assign one group to take hormone therapy and the other inert pills, have shown no cardiovascular benefit to taking hormone therapy. In 1998, the Heart and Estrogen/progestin Replacement Study (HERS) trial, in which postmenopausal women with heart disease were studied, demonstrated an increased risk of heart attacks in the first year in women who took hormone therapy, and no overall significant benefit of such therapy after four years.

In July 2002, the Women’s Health Initiative (WHI), a large trial of more than 16,000 healthy postmenopausal women aged 50 to 79 who were followed for an average of 5.6 years, was stopped prematurely because of a slight increase in cases of breast cancer among the women assigned to combined estrogen-progestin therapy (Prempro®). In addition, the women who took combined estrogen-progestin experienced slight increases in the risks of heart attack, stroke, and pulmonary emboli (blood clots in the lungs). The estrogen-only trial, which enrolled more than 10,000 women, was prematurely terminated in April 2004 after 6.8 years because of an increase in risk of stroke that was not offset by a reduced risk of heart attacks in the hormone group. Estrogen-only therapy also offered no clear benefit in terms of reducing chronic disease overall. As a result

of these studies, hormone therapy is no longer prescribed for the purpose of reducing the risk of heart disease.

Fortunately, there are many other measures you can take to reduce your cardiovascular risk, including maintaining a healthy body weight; avoiding cigarette smoking and excessive alcohol intake; getting adequate exercise; and treating diabetes, hypertension or elevated blood cholesterol. You should discuss your individual cardiovascular risk factors with your health care provider and determine what you can do to reduce your risk.

## Other

Some observational data suggest that hormone therapy reduces the risk for diabetes, Alzheimer disease, colorectal cancer, total mortality, and skin wrinkling. However, not all of these findings have been confirmed by careful clinical trials.

## Menopause Treatment

### What about hormone therapy?

Based on the results of the WHI (described on page 5-6), combined estrogen-progestin or estrogen-only therapy is not recommended for long-term use because of the associated health risks. However, shorter-term use (less than five years) for the purpose of treating hot flashes is still acceptable. Although longer-term use of hormones prevents osteoporosis, there are many other medications now available for the prevention and treatment of osteoporosis that do not carry the risks of hormone therapy and, therefore, are preferred over such therapy.

### What are the downsides of hormone therapy?

Estrogens can increase the risk for blood clots in the legs and lungs, stroke, and, for older women, heart disease. Estrogens also increase the risk for gallstones. Studies have shown that estrogen alone given to women with a uterus can increase the risk of endometrial hyperplasia (overgrowth of the uterine lining) and cancer. Progestogens protect the uterus, but some may counteract the beneficial effects of estrogen on cholesterol.

Many observational studies have suggested that there is an association between hormone therapy, particularly combined estrogen-progestin, and breast cancer, and that the risk of breast cancer increases with longer-term use (greater than five years). These findings were confirmed in the WHI, which demonstrated that in an average follow-up time of about five years, there was a slight increase in the risk of breast cancer in the women who took combined estrogen-progestin therapy (Prempro®).

### What are the different hormone therapy regimens?

Women with an intact uterus who wish to take estrogen should add a progestogen to avoid the risk of endometrial hyperplasia. Women without a uterus (following a hysterectomy) do not need an added progestogen. In the cyclical regimen, estrogen is given daily either by pill or by a skin patch, and a progestogen is added for days 1-14 of each month. This method causes cyclic bleeding usually at the end of the progestogen administration. This hormone regimen is generally used in women who are recently postmenopausal. In the continuous regimen, women are given estrogen and low-dose progestogen daily. This method can be associated with unpredictable bleeding for the first nine months. If heavy bleeding occurs, an endometrial biopsy or vaginal ultrasound may be done to evaluate the bleeding. In most women, the endometrium, or uterine lining, will atrophy within a year and bleeding will no longer occur. There are many different types of estrogens and progestogens available. You and your health care provider can discuss what regimen is the most appropriate for you.

### How do I make a decision regarding hormone therapy?

Estrogen use is very effective for the treatment of moderate to severe menopausal symptoms and, for many women, is probably safe to use on a short-term basis (ideally two to three years, and generally no more than five years). Although there is no magic formula for deciding whether or not to take hormone therapy, assessing your personal risk of various diseases associated with hormone therapy is important. The key factors to consider in making the hormone-therapy decision are your age, where you are in the menopausal transition, and whether you are in good cardiovascular health. **Your health history should be carefully discussed with your health care provider prior to starting hormone therapy.**

## What are the side effects of hormone therapy?

The most common side effects of estrogen therapy are nausea, headaches, breast tenderness, and vaginal bleeding. If these persist, the dose of estrogen may be lowered or hormone therapy can be discontinued. Side effects seen with progestogens are breast tenderness, weight gain, edema, PMS-like symptoms, depression, and irritability. If these occur, taking progestogen on an every-other-month or every-third-month basis rather than on a daily or monthly schedule might be helpful. However, it is not clear as to whether progestogen therapy taken this way offers sufficient protection against endometrial hyperplasia.

## Are there alternative estrogens?

Medications called selective estrogen receptor modulators (SERMs) have been developed recently. In some tissues of the body, these medications mimic the action of estrogen, while in other tissues they block it. To date, SERMs have primarily been used to prevent or treat breast cancer or osteoporosis in women at high risk of these conditions. Raloxifene (Evista®) is a SERM. In several large clinical trials, women who took raloxifene showed a 45-75 percent reduction in breast cancer and a 30-50 percent reduction in spine fractures. Unlike estrogen, raloxifene does not appear to increase the risk of heart disease in women at high risk of heart problems. However, disadvantages include a three-fold increased risk of clots (just as with estrogen), a possible increase in hot flashes, and no effect on hip fracture risk. In the future, watch for additional developments with SERMs, which could one day be designed to ease symptoms of menopause without increasing various health risks.

## What about non-hormonal treatments?

**Traditional Chinese Medicine** is a 2,000 year old medical system. Within Chinese Gynecology, menopause is recognized as a treatable condition. It is one of the most treatable conditions in Chinese Medicine as long as it is natural menopause and not surgically induced. This is supported by clinical research from Asia. In the Journal **Shandong Journal of Traditional Chinese Medicine** and the Journal **Traditional Chinese Medicine**, the successful herbal treatment of a number of menopausal conditions is discussed. In the study in the Journal **Traditional Chinese Medicine**, 93% of women were either cured or markedly improved. In the Journal **Traditional Sino-Japanese Medicine**, it was shown that menopausal women using Chinese Herbs had greater bone density than women in a control group not using Chinese Herbs.

Loose clothing and environmental temperature control can help hot flashes. Vaginal dryness can be treated with a moisturizer or with topical vaginal estrogens, which have little or no absorption into the bloodstream and are safe. Increased physical activity can also decrease hot flashes.

Some women find that dietary soy, a source of phytoestrogens (literally “plant estrogens”), decreases hot flashes. Besides soy, phytoestrogens are found in chickpeas, lentils, beans, flaxseed, sunflower seeds, and red clover. Like SERMs, phytoestrogens selectively stimulate or block estrogen-like action in various tissues.

Population-based data suggest lower rates of menopausal symptoms, heart disease, and breast and other cancers in women that consume more phytoestrogens, but other factors have not been sorted out. Limited clinical data suggest that there is a reduction in hot flashes and bone loss as well as improvements in cholesterol levels and blood pressure. More data are needed before a final recommendation can be made on the use of phytoestrogens.

Hot flashes may also be alleviated by certain antidepressants, such as those in the class of drugs called selective serotonin reuptake inhibitors (SSRIs), including medications such as fluoxetine (Prozac®), sertraline (Zoloft®), and citalopram (Celexa®), or selective serotonin noradrenergic reuptake inhibitors (SNRIs), such as venlafaxine (Effexor®). The anti-seizure medication gabapentin (Neurontin®) may also be helpful. Some women use soy supplements and herbal remedies, such as black cohosh, to relieve hot flashes, but there is very little research to indicate whether these supplements are effective or safe.

Cardiovascular risk can be reduced by lifestyle changes, such as modifying your diet, getting regular exercise, avoiding smoking and excessive alcohol intake, and treatment of high blood pressure and elevated cholesterol.

Performing weight-bearing exercise at least three times per week, getting adequate calcium and vitamin D, and avoiding smoking and excessive alcohol intake may prevent osteoporosis. There are also several drugs available that have been shown to prevent or treat osteoporosis.