Menopause

Basics:
Menopause is a natural part of aging. It refers to the time in a woman's life when her periods (menses) stop and she is no longer fertile.

Every woman will experience menopause, or the cessation of her period (menses). This occurs when the ovaries stop functioning. The ovaries are the organs that store and release eggs, and they play a role in hormone levels in the body. When the ovaries stop working, a woman is no longer fertile.

A woman is said to be in menopause when she has not had a period for 12 months, she has symptoms of menopause such as hot flashes, and no other cause can be established. Not menstruating for an entire year after the age of 45 is the typical definition of menopause. No tests can predict when menopause will happen or how long menopause symptoms may last.

The age in which women experience menopause varies greatly. Most women reach menopause at around 51 years of age.

The average age at which a woman reaches menopause is 51 years, but the range is between 45 and 58 years. Although the average time for transition into menopause is 5 years, it can take anywhere from 2 to 8 years. However, menopause can occur abruptly in women of any age who have had their ovaries surgically removed.

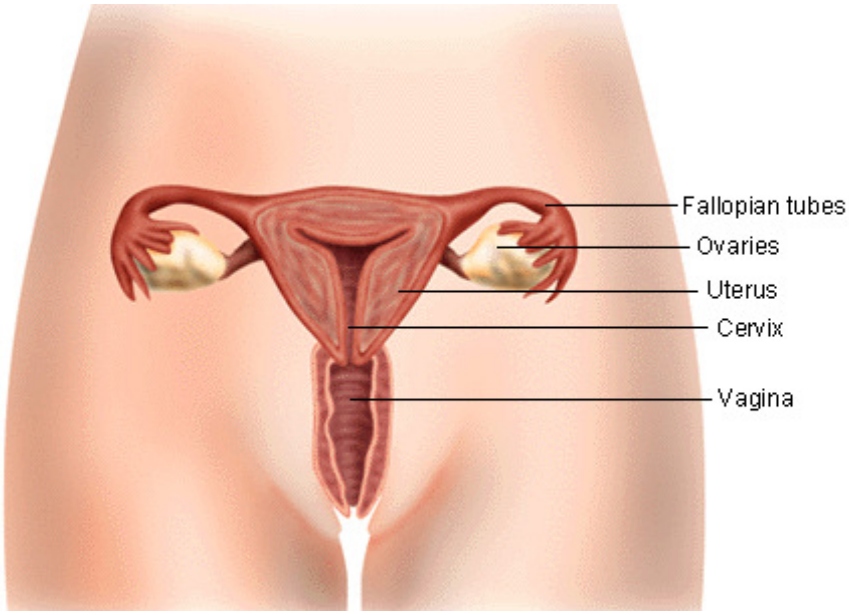
Causes:
Menopause happens due to a sharp decrease of female hormones in the body. Scientists do not know what triggers the ovaries to stop working and hormone levels to change.

A woman's menstrual cycle is influenced by a complex system of hormones. It is a change in these hormones that causes menopause to occur.

Two substances - called luteinizing hormone (LH) and follicle-stimulating hormone (FSH) - start the process of the monthly menstrual cycle. They are released into the bloodstream by the brain's pituitary gland, and signal the ovaries in the reproductive system to produce the female sex hormones estrogen and progesterone. Estrogen and progesterone work to prepare a woman's body for possible pregnancy. They prepare an egg for release from the ovaries and cause the lining of the uterus (womb) to thicken so it is ready to provide a good environment should the egg be fertilized and pregnancy occur. If the egg is not fertilized and no pregnancy occurs, hormone levels drop and

menstruation begins. During menstruation, the uterine lining is shed and expelled from the body, resulting in bleeding from the vagina. The process then begins all over again.

With age, the ovaries become less receptive to commands from the pituitary gland. This causes the pituitary gland to produce more LH and FSH, the ovaries secrete less and less estrogen and progesterone, and the menstrual cycle eventually comes to a halt.



Certain factors can influence the age at which menopause begins.

The age which a woman begins menopause can be influenced by certain factors.

Cigarette smoking: Smokers experience menopause an average of 1 year earlier than nonsmokers.

Family history: Genetics also play a role in the age a woman is likely to experience menopause. Mothers and daughters tend to experience menopause at similar ages.

Chemotherapy: Chemotherapy and radiation therapy increase the risk of premature menopause.

Surgery: Hysterectomy (surgical removal of the uterus) alone does not typically trigger early menopause; however, menstrual bleeding will stop after a hysterectomy. If both ovaries are removed (bilateral oophorectomy), menopause starts immediately after surgery, regardless of your age.

Symptoms:
Symptoms of menopause can very widely from woman to woman. The most common symptoms associated with the transition into menopause include irregular periods, hot flashes, night sweats, and vaginal dryness.

The 4 to 6 years leading up to the final menstrual period are called perimenopause. It is during this time that symptoms are usually most bothersome. Symptoms that are commonly experienced include:

Irregular periods

Breast tenderness, especially in the early stages of menopause

Hot flashes, which are moments of feeling intensely hot, flushed, and sweaty. Hot flashes can last anywhere from 30 seconds to 5 minutes, and can occur multiple times a day

Night sweats

Heart pounding or palpitations

Vaginal dryness, which may make sex uncomfortable or painful

Insomnia

Mood changes, irritability, and depression

Risk Factors:
Falling estrogen levels also can have hidden effects, such as bone loss and cholesterol changes that increase heart disease risk [Table 1].

Estrogen has protective effects on the bones and heart. This is one of the reasons why younger women do not suffer from osteoporosis and heart disease to the extent that older women do.

The period of most rapid postmenopausal bone loss occurs in the first 5 years following menopause. One out of every two women over the age of 50 is at risk for osteoporosis, and one in four will get it unless she takes steps to prevent it. Osteoporosis can result in bone breaks after minor injuries, or even without injury in elderly women.

Women at higher risk for developing osteoporosis include:

Thin Asian and white women

Smokers

Women who drink alcohol excessively

Women who lead a sedentary lifestyle

Women who have poor nutritional habits, especially a lack of calcium in the diet

Women who take certain medications, such as corticosteroids and medications for thyroid problems

Heart disease is the number one killer of women. Heart disease worsens more rapidly after menopause because of falling estrogen levels in the body. Less estrogen in the blood increases bad cholesterol (LDL) and decreases good cholesterol (HDL) levels. An unfavorable ratio of these blood fats can lead to heart attack and other cardiovascular (heart and circulation) problems [Table 1].

Loss of the female sex hormone progesterone increases risk of abnormal thickening of the uterine lining (endometrial hyperplasia) and cancer in some women [Table 1].

Endometrial hyperplasia is an abnormal thickening of the uterine lining (endometrium) that usually is not a serious health risk. However, if endometrial hyperplasia is left untreated it can progress to cancer in some women. Taking estrogen replacement without accompanying progesterone replacement may increase the risk of developing endometrial hyperplasia.

Women who are obese or drink alcohol excessively are more vulnerable to endometrial hyperplasia and cancer, as are those with a family history of endometrial cancer, diabetes, or liver disease.

Irregular vaginal bleeding may indicate an endometrial problem. If you experience changes in your menstrual cycle that last more than 3 months, see your clinician to find out if the changes are related to menopause or another cause.

Table 1. Risks Associated With Menopause

CONDITIONS THAT MAY OCCUR DUE TO THE HORMONAL CHANGES OF MENOPAUSE	FACTORS THAT PUT YOU AT GREATER RISK FOR DEVELOPING THE CONDITION
Osteoporosis	Age (bones weaken with age)
	Race (white, Asian)
	Female sex
	Family history
	Slender frame
	Smoking
	Medications (corticosteroids, anticonvulsants, aluminum-containing antacids, thyroid medications)

	Poor nutrition
	Sedentary lifestyle
Heart disease	Smoking
	Hypertension
	Postmenopausal status
	Diabetes
	High LDL cholesterol
	Low HDL cholesterol
	High triglycerides
	Family history
Uterine cancer	Obesity
	Excessive hair
	Abnormal vaginal bleeding
	Liver disease
	Diabetes
	Family history
	High alcohol intake

Diagnosis:
A menopause diagnosis is made after a woman over the age of 45 has gone an entire year without having a menstrual period.

There is no test that can pinpoint when your final menstrual period will occur, but if you could be in menopause, your doctor may check your LH and FSH levels to see if they are elevated. The diagnosis of menopause is made in hindsight, after a woman over the age of 45 has gone 12 months without having a menstrual period, has at least one symptom of menopause, and no other cause of the lack of menses can be found.

Prevention and Screening:
Be sure to get enough calcium and vitamin D to prevent bone loss during and after menopause.

Getting enough calcium and vitamin D can help prevent osteoporosis, which is associated with menopause. The recommended daily calcium intake for women 50 and over is 1,000 to 1,500 milligrams (mg). This equals about three to five cups of low-fat milk. Most American women consume much less, getting about 500 mg daily; therefore, calcium supplements may be necessary. Vitamin D is needed for calcium to be absorbed, particularly in women over 60 years of age. Many doctors recommend a daily vitamin D intake of 400 international units. Finally, women at risk for osteoporosis should undergo bone mineral density testing.

Keeping blood pressure under control and cholesterol and blood sugar in check can help lower heart disease risk.

Eating a healthy diet (low fat, high fiber) and getting plenty of exercise are good ways to keep blood pressure down and prevent cholesterol and blood sugar from being too high. Try for five servings of fruits and vegetables daily and at least 30 minutes of exercise most days of the week.

It is important to have regular checkups. Your clinician can monitor your cardiovascular disease risk factors by checking your blood pressure, measuring your cholesterol levels, calculating your body mass index (BMI), and measuring your blood sugar levels.

Perimenopausal women who experience abnormal vaginal bleeding should undergo further evaluation to check for endometrial hyperplasia and cancer.

Be sure to notify your clinician if you experience irregular or heavy vaginal bleeding. A tissue sample can be removed from your uterine lining and examined under a microscope to see if there are any cellular abnormalities. Ultrasound examination may be performed also.

Self Care:
Wear clothes that are hot-flash friendly, and sleep on cotton sheets.

Dressing in layers is a good idea when you are experiencing hot flashes. Discarding outer layers can help to cool you down. Wear cotton and avoid wool. Also, sleep on cotton sheets. Just as articles of clothing can be discarded during a hot flash that occurs during the day, blankets and sheets can be thrown off during a night sweat. Keeping your environment 3 to 5 degrees cooler than normal can also help.

If vaginal dryness is a problem, try using a lubricant or cream.

Over-the-counter vaginal creams and lotions can help relieve vaginal dryness. Be sure to use only creams and lotions made specifically for vaginal use.

Estrogen-based creams can help prevent thinning of the vaginal lining and lower the risk of urinary infections and incontinence, in addition to alleviating vaginal dryness. Discuss treatment options with your clinician if you are bothered by vaginal dryness.

Drug Therapy:
Your doctor is the best source of information on the drug treatment choices available to you.

Other Therapies:
Low-dose oral contraceptives may be helpful for some perimenopausal women who experience excessive bleeding, such as menstrual periods that are coming too close together or very heavy periods.

Women experiencing a long perimenopause marked with unpredictable, too frequent, or heavy vaginal bleeding may benefit from low-dose oral contraceptives. Oral contraceptives can help decrease vaginal bleeding, regulate menses, and prevent hot flashes. Since women are still fertile during perimenopause, oral contraceptives have the added benefit of preventing an unwanted pregnancy. They may also help prevent bone loss. Your clinician may need to perform a gynecologic examination and certain tests to rule out other causes of irregular bleeding before you are started on oral contraceptives.

Hormone replacement therapy (HRT) may be used to treat particularly bothersome menopausal symptoms, or to treat or prevent certain diseases. It is important to discuss the risks and benefits of HRT with your clinician.

Replacing estrogen (and in many cases, progesterone) is controversial because several recent studies have reached conflicting conclusions about the risks of HRT. Your clinician is the best source for the most up-to-date information regarding HRT and whether it is right for you. Every woman should have a serious discussion with her clinician about whether or not to take hormones. Your clinician will consider the severity of your symptoms and your individual health history, as well as the risks of HRT.

HRT can help relieve hot flashes, improve vaginal tone, decrease the risk of colorectal cancer, and prevent osteoporosis. Expect to be on estrogen replacement therapy for about four to six weeks before you notice a decrease in hot flashes. Estrogen replacement may also help minor sleep problems.

Estrogen replacement increases the risk of blood clots, heart disease, stroke and gallstones. Taking estrogen alone (without progesterone) is also correlated with an increased risk of uterine cancer. This risk, however, doesn't apply for women also taking progesterone. Taking progesterone along with estrogen replacement may decrease this risk; however, the risk of ovarian cancer may be increased. Even with HRT, the occurrence of ovarian cancer is rare.

When estrogen and progesterone replacement is needed, most women prefer to take both hormones daily because alternating between the two tends to cause unwanted vaginal bleeding.

Estrogen is available in natural and synthetic forms. Estrogen can be taken by mouth or through a skin patch. Estrogen also can be applied to the vagina as a cream when its intended purpose is to remedy vaginal dryness and urinary incontinence.

Synthetic progesterone (progestin) can be taken orally, vaginally, or by injection into a muscle. Progesterone can cause bloating, weight gain, irritability, and depression in some women. However, most women can find a formulation that is comfortable for them.

Recent large research studies indicate that taking HRT increases the risk of developing breast cancer. This is particularly true in women who have already had breast cancer.

HRT may also increase the incidence of abnormal mammograms. Though the increased risk of breast cancer in the general population is not that great, many women no longer want to take HRT.

Because of this new information about the risks of HRT, most clinicians will not treat menopausal symptoms with HRT unless the symptoms interfere greatly with a woman's quality of life. Since hot flashes can be particularly bothersome for some women, HRT can be used for short-term treatment of hot flashes (less than 5 years) without significantly increasing a woman's risk of breast cancer.

HRT decreases the risk of colorectal cancers and bone loss from osteoporosis. Other medicines are available for the prevention and treatment of osteoporosis.

New forms of estrogen-like hormones, called selective estrogen receptor modulators (SERMs), are being evaluated as a possible alternative to standard HRT.

Because of the risks associated with HRT, it is no longer prescribed solely to prevent osteoporosis. Other medicines are available to help combat postmenopausal bone loss, including SERMs. SERMs act like estrogen in some tissues but not others. They were designed to counteract estrogen's potential to stimulate breast tumors, while retaining the benefit of estrogen in preventing osteoporosis. Some SERMs may increase the risk of endometrial cancer and blood clots, or cause hot flashes, flushing, sweaty palms, and vaginal dryness. Therefore, SERMs are not used to treat symptoms of menopause, such as hot flashes.

Alternative Medicine:
Soy has received a lot of attention as a remedy for problems related to menopause. In Asian countries where soy is consumed regularly, hot flashes do not seem to bother perimenopausal women. Soy contains plant estrogens called isoflavones that are chemically similar to but much weaker than human estrogen. In medical studies, soy has not consistently relieved hot flashes. Any woman with breast cancer should consult their clinician before using soy to relieve hot flashes. There are many herbal remedies on the market that claim to help menopause symptoms. Long-term safety is not known for herbal supplements used for relief of menopause symptoms.

Naturopaths and herbalists recommend herbs, such as black cohosh, chasteberry, and dong quai for menopause-related complaints. Anecdotal experience suggests they may be helpful, but there have been no large, controlled clinical trials to evaluate their safety and effectiveness. Only vitamin E has been shown to be more effective than placebo (sugar pill) in decreasing hot flashes, but its benefit appears to be minimal. Plus, the Food and Drug Administration does not regulate herbs, so there is no assurance of quality control among such products.

Alternative therapies should not be used as a substitute for medical care. You should always tell your clinician or pharmacist what medicines you are taking, such as prescription or over-the-counter medicines, herbs, vitamins, or other supplements.

Alternative therapies may react poorly with some prescribed or over-the-counter medicines. Taking herbs, vitamins, or other supplements may interfere with lab tests or healing after surgery or illness, or may worsen some illnesses and health conditions. Your clinician and pharmacist can help you choose the complementary therapies or supplements that are right for you.

Prognosis:
Most women get used to the symptoms of menopause over time. However, women who feel that their quality of life would be significantly improved by relief of menopause symptoms may want to discuss the risks and benefits of short-term hormone therapy with their clinician.

Follow-Up:
Postmenopausal women should have yearly gynecological exams (pelvic and breast exams) and tests that are appropriate for their age and risk factor profile.

In addition to gynecological exams, mammography (to detect breast cancer) and cholesterol testing should be performed on a regular basis. Bone density testing may be necessary for women who are at high risk of osteoporosis. Thyroid problems are more common in older women. Therefore, the thyroid should be checked every 3 to 5 years. Women at particularly high risk for disease (such as diabetic women) need to be checked more frequently and treated more aggressively for high blood pressure, cholesterol abnormalities, and increased blood sugar.