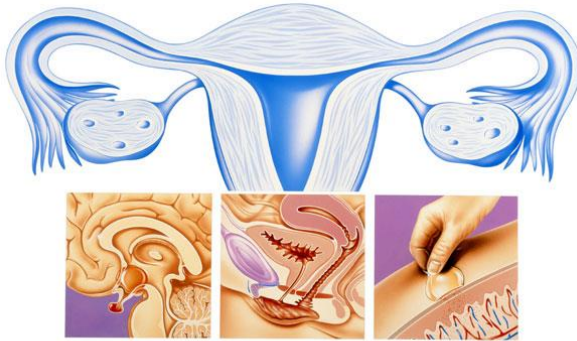


Menopause



Menopause, also known as the climacteric, is the time in most women's lives when menstrual periods stop permanently, and she is no longer able to have children. Menopause typically occurs between 45 and 55 years of age. Medical professionals often define menopause as having occurred when a woman has not had any vaginal bleeding for a year. It may also be defined by a decrease in hormone

production by the ovaries. In those who have had surgery to remove the uterus but still have ovaries, menopause may be viewed to have occurred at the time of the surgery or when hormone levels fall. Following the removal of the uterus, symptoms typically occur earlier, at an average of 45 years of age.

Before menopause, a woman's periods typically become irregular, which means that periods may be longer or shorter in duration, or be lighter or heavier in terms of the amount of flow. During this time, women often experience hot flashes; these typically last from 30 seconds to ten minutes, and may be associated with shivering, sweating and reddening of the skin. Hot flashes often stop occurring after a year or two. Other symptoms may include vaginal dryness, trouble sleeping, and mood changes. The severity of symptoms varies between women. While menopause is often thought to be linked to an increase in heart disease, this primarily occurs due to increasing age and does not have a direct relationship with menopause. In some women, problems that were previously present like endometriosis or painful periods will improve after menopause.

Menopause is usually a natural change. It can occur earlier in those who smoke tobacco. Other causes include surgery that removes both ovaries or some types of chemotherapy. At the physiological level, menopause happens because of a decrease in the ovaries' production of the hormones estrogen and progesterone. While typically not needed, a diagnosis of menopause can be confirmed by measuring hormone levels in either the blood or urine. Menopause is the opposite of menarche, the time at which a girl's period start.

Specific treatment is not usually needed. Some symptoms, however, may be improved with treatment. With respect to hot flashes, avoiding smoking, caffeine, and alcohol is often recommended. Sleeping in a cool room and using a fan may also help. The following medications may help: menopausal hormone therapy (MHT), clonidine, gabapentin, or selective serotonin reuptake inhibitors. Exercise may help with sleeping problems. While MHT was once routinely prescribed, it is now only recommended in those with significant symptoms, as there are concerns about side effects. High-quality evidence for the effectiveness of alternative medicine has not been found.

Causes of Menopause

A woman is born with a finite number of eggs, which are stored in the ovaries. The ovaries also make the hormones estrogen and progesterone, which control menstruation and ovulation. Menopause happens when the ovaries no longer release an egg every month and menstruation stops.

Menopause is considered a normal part of aging when it happens after the age of 40. But some women can go through menopause early, either as a result of surgery, such as hysterectomy, or damage to the ovaries, such as from chemotherapy. Menopause that happens before 40, regardless of the cause, is called premature menopause.

Menopause can result from:

- Natural decline of reproductive hormones. As you approach your late 30s, your ovaries start making less estrogen and progesterone — the hormones that regulate menstruation — and your fertility declines.

In your 40s, your menstrual periods may become longer or shorter, heavier or lighter, and more or less frequent, until eventually — on average, by age 51 — you have no more periods.

- Hysterectomy. A hysterectomy that removes your uterus, but not your ovaries (partial hysterectomy) usually doesn't cause immediate menopause. Although you no longer have periods, your ovaries still release eggs and produce estrogen and progesterone.

But surgery that removes both your uterus and your ovaries (total hysterectomy and bilateral oophorectomy) does cause menopause, without any transitional phase. Your periods stop immediately, and you're likely to have hot flashes and other menopausal signs and symptoms, which can be severe, as these hormonal changes occur abruptly rather than over several years.

- Chemotherapy and radiation therapy. These cancer therapies can induce menopause, causing symptoms such as hot flashes during or shortly after the course of treatment. The halt to

menstruation (and fertility) is not always permanent following chemotherapy, so birth control measures may still be desired.

- Primary ovarian insufficiency. About 1 percent of women experience menopause before age 40 (premature menopause). Menopause may result from primary ovarian insufficiency — when your ovaries fail to produce normal levels of reproductive hormones — stemming from genetic factors or autoimmune disease. But often no cause can be found. For these women, hormone therapy is typically recommended at least until the natural age of menopause in order to protect the brain, heart and bones.

Symptoms of Menopause

During the early menopause transition, the menstrual cycles remain regular but the interval between cycles begins to lengthen. Hormone levels begin to fluctuate. Ovulation may not occur with each cycle.

The date of the final menstrual period is usually taken as the point in time when menopause has occurred. During menopausal transition and after menopause, women can experience a wide range of symptoms.

Transition symptoms

Menstrual patterns can show shorter cycling (by 2–7 days); longer cycles remain possible; irregular bleeding (lighter, heavier, spotting).

Physical : Physical symptoms include: lack of energy, joint soreness, stiffness,[13] back pain,[13] breast enlargement, breast pain, heart palpitations, headache, dizziness, dry,itchy skin, thinning, tingling skin, weight gain, urinary incontinence, urinary urgency, interrupted sleeping patterns, heavy night sweats, hot flashes.

Psychological : Psychological symptoms include: anxiety, poor memory, inability to concentrate, depressive mood, irritability, mood swings.

Sexuality : Sexual changes include: painful intercourse, vaginal dryness, less interest in sexual activity.

- Increased risk of osteopenia and osteoporosis[citation needed]
- Possible, but contentious increased risk of atherosclerosis[19]
- Migraine

- Dysfunctional uterine bleeding as part of menstruation. Women approaching menopause often experience this due to the hormonal changes that accompany the menopause transition. In post-menopausal women, however, any genital bleeding is an alarming symptom that requires an appropriate study to rule out the possibility of malignant diseases. However, spotting or bleeding may simply be related to vaginal atrophy, a benign sore (polyp or lesion) or may be a functional endometrial response. The European Menopause and Andropause Society has released guidelines for assessment of the endometrium, which is usually the main source of spotting or bleeding.

- Atrophic vaginitis - Thinning of the membranes of the vulva, the vagina, the cervix, and also the outer urinary tract, along with considerable shrinking and loss in elasticity of all of the outer and inner genital areas.

- Increased susceptibility to inflammation and infection, for example vaginal candidiasis, and urinary tract infections[citation needed]

- The risk of acute myocardial infarction and other cardiovascular diseases rises sharply after menopause, but the risk can be reduced by managing risk factors, such as tobacco smoking, hypertension, increased blood lipids and body weight.

Diagnosis of Menopause

One way of assessing the impact on women of some of these menopause effects are the Greene Climacteric Scale questionnaire, the Cervantes Scale and the Menopause Rating Scale.

Premenopause

Premenopause is a term used to mean the years leading up to the last period, when the levels of reproductive hormones are already becoming more variable and lower, and the effects of hormone withdrawal are present. Premenopause often starts some time before the monthly cycles become noticeably irregular in timing.

Perimenopause

The term "perimenopause", which literally means "around the menopause", refers to the menopause transition years, a span of time both before and after the date of the final episode of flow. According to the North American Menopause Society, this transition can last for four to eight years. The Centre for Menstrual Cycle and Ovulation Research describes it as a six to ten year phase ending 12 months after the last menstrual period.

During perimenopause, estrogen levels average about 20-30% higher than during premenopause, often with wide fluctuations. These fluctuations cause many of the physical

changes during perimenopause as well as menopause. Some of these changes are hot flashes, night sweats, difficulty sleeping, vaginal dryness or atrophy, incontinence, osteoporosis, and heart disease. During this period, fertility diminishes, but is not considered to reach zero until the official date of menopause. The official date is determined retroactively, once 12 months have passed after the last appearance of menstrual blood.

Signs and effects of the menopause transition can begin as early as age 35, although most women become aware of the transition in their mid to late 40s, which is often many years after the actual beginning of the perimenopausal window. The duration of perimenopause with noticeable bodily effects can be as brief as a few years, but it is not unusual for the duration to last ten or more years. The actual duration and severity of perimenopause effects for any individual woman currently cannot be predicted in advance. Even though the process, or the course, of perimenopause or menopause can be difficult to predict, the age of onset is somewhat predictable: women will often, but not always, start these transitions (perimenopause and menopause) about the same time as their mother.

In some women, menopause may bring about a sense of loss related to the end of fertility. In addition, this change often occurs when other stresses may be present in a woman's life:

- Caring for, and/or the death of, elderly parents
- Empty-nest syndrome when children leave home
- The birth of grandchildren, which places people of "middle age" into a new category of "older people" (especially in cultures where being older is a state that is looked down on)

Some research appears to show that melatonin supplementation in perimenopausal women can improve thyroid function and gonadotropin levels, as well as restoring fertility and menstruation and preventing depression associated with the menopause.

Postmenopause

The term "postmenopausal" describes women who have not experienced any menstrual flow for a minimum of 12 months, assuming that they do still have a uterus, and are not pregnant or lactating. In women without a uterus, menopause or postmenopause can be identified by a blood test showing a very high FSH level. Thus postmenopause is all of the time in a woman's life that takes place after her last period, or more accurately, all of the time that follows the point when her ovaries become inactive.

The reason for this delay in declaring postmenopause is because periods are usually erratic at this time of life, and therefore a reasonably long stretch of time is necessary to be sure that the cycling has actually ceased completely. At this point a woman is considered infertile; however,

the possibility of becoming pregnant has usually been very low (but not quite zero) for a number of years before this point is reached.

A woman's reproductive hormone levels continue to drop and fluctuate for some time into post-menopause, so hormone withdrawal effects such as hot flashes may take several years to disappear.

Any period-like flow during postmenopause, even spotting, must be reported to a doctor. The cause may be minor, but the possibility of endometrial cancer must be checked for.

Treatment of Menopause

Menopause requires no medical treatment. Instead, treatments focus on relieving your signs and symptoms and preventing or managing chronic conditions that may occur with aging. Treatments may include:

- **Hormone therapy.** Estrogen therapy remains, by far, the most effective treatment option for relieving menopausal hot flashes. Depending on your personal and family medical history, your doctor may recommend estrogen in the lowest dose needed to provide symptom relief for you. If you still have your uterus, you'll need progesterin in addition to estrogen. Estrogen also helps prevent bone loss. And hormone therapy may benefit your heart if started within five years after your last menstrual period.

- **Vaginal estrogen.** To relieve vaginal dryness, estrogen can be administered directly to the vagina using a vaginal cream, tablet or ring. This treatment releases just a small amount of estrogen, which is absorbed by the vaginal tissues. It can help relieve vaginal dryness, discomfort with intercourse and some urinary symptoms.

- **Low-dose antidepressants.** Certain antidepressants related to the class of drugs called selective serotonin reuptake inhibitors (SSRIs) may decrease menopausal hot flashes. A low-dose antidepressant for management of hot flashes may be useful for women who can't take estrogen for health reasons or for women who need an antidepressant for a mood disorder.

- **Gabapentin (Neurontin).** Gabapentin is approved to treat seizures, but it has also been shown to help reduce hot flashes. This drug is useful in women who can't use estrogen therapy and in those who also have migraines.

- **Medications to prevent or treat osteoporosis.** Depending on individual needs, doctors may recommend medication to prevent or treat osteoporosis. Several medications are available that help reduce bone loss and risk of fractures.

Before deciding on any form of treatment, talk with your doctor about your options and the risks and benefits involved with each. Review your options yearly, as your needs and treatment options may change.

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