



Fact Sheet

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The Menopausal Transition (Perimenopause)

What is the menopausal transition?

This term describes the time period that links the reproductive years (regular menstrual cycles, fully functioning ovaries, highest chance for pregnancy) to menopause (no menstrual cycles for 1 year, lower ovarian hormone production, average age approximately 51 years). During the menopause transition, the length of menstrual cycles often changes and women may skip their menstrual periods more often. The duration of the menopausal transition varies from woman to woman but averages about five years.

What hormonal changes occur during the menopause transition?

Many doctors and laboratories have investigated hormones that change during the menopause transition. A summary of many of those hormones and how they may change over time is provided below. One of the first hormonal changes that occurs as a woman gets older is a decrease in levels of an ovarian hormone called inhibin. Inhibin causes a decrease in the production of FSH. As inhibin levels fall, FSH levels rise higher and higher during the menopause transition. FSH levels cause estrogen (female hormone produced by the ovaries) levels to rise. Just as FSH levels fluctuate, so do estrogen levels. In fact, estrogen levels may be temporarily high at times during the menopause transition. This shows that there is higher stimulation by FSH. Over time, as the ovaries themselves lose their ability to make hormones, estrogen levels drop, despite constantly high FSH levels. Progesterone, a hormone which is high after ovulation (release of an egg), may not reach as high a level during the menopause transition as during earlier reproductive years. In some cases, progesterone levels may not rise at all during a menstrual cycle. In those months no ovulation occurs, leading to a missed menstrual period. Finally, anti-mullerian hormone (AMH) levels tend to steadily decrease over time during the menopause transition. Hormone changes vary from person to person, so there is no specific blood test that can predict or diagnose the menopause transition. At this time, these tests are more useful for research than for clinical practice.

What symptoms am I most likely to experience?

Symptoms vary greatly from person to person. They may occur at different times and with different degrees of severity. The information below is meant only as a guide about what you may possibly experience and does not include all potential symptoms.

Change in uterine bleeding patterns: Many different types of bleeding patterns can occur. Some women will have irregular periods that are closer together at first and then farther apart. Some will go several months without periods and then have some bleeding on and off. Some women will have heavier, irregular bleeding because of a lack of ovulation. Others may have small amounts of bleeding because of a thinner lining of the uterus. Because the menstrual cycles are sometimes ovulatory (produce

an egg), women in the menopausal transition who are sexually active sometimes get pregnant. Contraception should be used for women not wishing to conceive until at least age 52 or until there are no periods for one year. These changes may be a normal part of the menopause transition. But, sometimes they may represent an abnormal overgrowth of the lining of the uterus, called hyperplasia, or even cancer. So, it is important to tell your doctor about any changes so that they can be properly evaluated.

Hot flashes and vaginal symptoms: These symptoms are usually caused by lower estrogen levels, and may occur in some women before the menopause transition. Although approximately 2 out of 3 women will experience hot flashes at some point, the timing, intensity, and duration of these symptoms can vary a lot. Vaginal dryness can occur over time and may be particularly noticeable during sexual intercourse.

Mood symptoms/sleep disturbances: During the menopause transition, many women will experience depressed mood, decreased sex drive (libido), forgetfulness and difficulty sleeping. It is never completely clear how much these symptoms can be due to the menopause transition because they may also be due to other medical disorders. If you experience any of these symptoms, please talk to your doctor to determine appropriate treatment.

What treatments are effective for these symptoms?

Changes in your bleeding pattern can only be treated after a proper investigation. This may include some combination of a physical exam, blood tests, pelvic ultrasound, or biopsy. In some cases, more advanced testing may be required. If the abnormal bleeding is due to the hormone changes of the menopause transition, treatment may start with some combination of estrogen and/or progesterone in the form of pills, shots, patches, or even given locally (vaginally). Behavioral modification, like avoiding caffeine and alcohol, keeping the environment cool and wearing lighter clothing, may be helpful. Hot flashes can also be treated with a hormone combination as mentioned above. In addition, complementary and alternative medicines like herbal medicines or acupuncture may provide some relief, although there is not much medical evidence to support these therapies. Finally, some medicines typically used as antidepressants (serotonin reuptake inhibitors/SSRIs, serotonin-norepinephrine reuptake inhibitors/SNIs) and other medicines that affect the central nervous system (clonidine, gabapentin) are also effective for relieving hot flashes. They may also help women who have sleep or mood disturbances. Women with vaginal symptoms often find relief by using either local or systemic hormones, often in lower doses, and by using local moisturizers or lubricants. Before considering treatment with any combination of hormones, please be sure to talk to your doctor about whether you are an appropriate candidate for hormone therapy and to discuss the potential risks as well as the benefits.

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