Menopause Basics

Menopause is the permanent end of menstruation and fertility. It is a normal, natural event, usually confirmed when a woman has not had a menstrual period for 12 consecutive months, in the absence of other obvious causes. Menopause is associated with reduced functioning of the ovaries, resulting in lower levels of ovarian hormones, primarily estrogen.

During the transition from the reproductive years through menopause and beyond, a woman experiences many physical changes. Most of these changes are normal, but others may suggest illness. Some changes are related to menopause, others to aging. Also, conditions such as obesity, diabetes, thyroid disorders, and hypertension may develop during midlife, so it is sometimes difficult to distinguish those that are menopause-related from those that are age-related.

All women experience menopause, each in a unique way. Menopause is a passageway to a new part of life when most women report feeling more confident, empowered, involved, and energized than in their younger years. For some, the end of fertility brings liberation from concerns about birth control and menstrual periods. For others, however, menopause is a reminder that they are aging, which may cause distress in a society that values youth and fertility. Serious health problems may also arise when changing hormone levels and the physical effects of aging are coupled with the stresses of midlife. One thing, however, is true for all women. Menopause presents an opportunity for women to enhance their quality of life through improved health practices.

Timing & Terminology

Several terms related to menopause are defined below.

Natural Menopause

Natural menopause is a spontaneous, permanent ending of menstruation that is not caused by any medical intervention. In the Western world, most women experience natural menopause between the ages of 40 and 58, with the average at about age 51. Some women reach natural menopause as early as their 30s and a few in their 60s. Although there has been an increase in life expectancy over the years, the age of menopause has not changed during the past few centuries. Today, most North American women spend at least one-third of their lives postmenopause.

Only one factor has been conclusively proven to affect a woman's age at menopause – smoking. Smokers reach menopause approximately 2 years earlier than nonsmokers. Women often experience menopause around the same age as their mothers and sisters, which suggests a genetic link. Although several studies support this link, the evidence is not considered conclusive.

There is limited evidence to connect other factors with a woman's age at menopause. Factors that may be associated with later age at menopause include multiparity (having more than one pregnancy) and being overweight. Factors that may be associated with menopause occurring earlier than average include nulliparity (never having delivered a baby), having a history of heart disease, and treatment of childhood cancer with pelvic radiation or some types of chemotherapy. No clear correlations have been found between age at menopause and age at first period.

Perimenopause

Physical signs of menopause begin many years before the final menstrual period. This menopause transition phase is called perimenopause (literally meaning "around menopause"). It can last 6 years or more and ends the first year after menopause. Perimenopausal changes are brought on by changes in ovarian hormone levels and the hormones that regulate them. Irregular menstrual periods, hot flashes, vaginal dryness, sleep disturbances, and mood swings are common, normal signs of perimenopause.

Induced Menopause

Induced menopause, which can occur at any age after menarche (first period), is the stopping of menstrual periods resulting from a medical intervention, including the following:

- Surgical removal of both ovaries (bilateral oophorectomy). Menopause occurs immediately. This is sometimes called surgical menopause.
- Cancer chemotherapy or pelvic radiation therapy that causes serious ovarian damage. Fertility and menstrual periods may end immediately or after several months. At that time, menopause is reached.

Removing the uterus (hysterectomy) does not cause menopause if the ovaries are left in place and continue to produce hormones, although menstrual bleeding stops and the woman is no longer fertile. However, even if the ovaries are not removed, a hysterectomy causes menopause to occur an average of 2 or 3 years earlier than normal, probably by disturbing the blood supply to the ovaries. Women who have had a hysterectomy will still experience perimenopause as their ovaries gradually secrete less estrogen. But without a uterus, a woman will no longer menstruate, so she will

Menopause is a normal, natural event – not a disease.

not have the most reliable indicator of the beginning of perimenopause – irregular periods.

If a planned treatment or surgery has the potential to induce menopause, childbearing should be discussed before the procedure. More options are becoming available for women who are unable to conceive "naturally." Whether a woman will be able to use the fertility technologies will depend on several factors, including her age, general health, the type of treatment or surgery, and her ability to afford the fertility method.

Premenopausal women who experience induced menopause are faced with menopause and its effects without a period of gradual adjustment. The abrupt loss of ovarian hormones may result in more intense symptoms from estrogen loss (such as hot flashes) and from androgen loss (such as diminished sexual desire).

The emotional impact of induced menopause may also be greater than with natural menopause. Women must often cope with the disease or condition that led to their need for medical intervention as well as the side effects of therapy. For example, pelvic radiation can cause severe vaginal dryness. Chemotherapy, depending on which drugs are used, may cause hair loss, nausea, fatigue, weight gain, and lack of energy, in addition to its effect on the ovaries.

Typically, women who experience induced menopause have a greater need for treatment to control their menopause-associated symptoms than women who undergo natural menopause. Because they are often younger, they need ongoing monitoring and sometimes treatment to prevent menopause-associated diseases later in life (see Postmenopausal Health on page 25).

Premature Menopause

Menopause, whether natural or induced, is called premature when it is reached before age 40. Premature menopause can be the result of genetics, autoimmune processes, or medical interventions. Women who experience premature menopause spend more years without the protective effects of estrogen and are at greater risk for health problems later in life, such as osteoporosis and, possibly, heart disease.

Premature menopause can also be a source of psychological distress for women who grieve the loss of fertility and the children they will never have. Some women may link fertility with femininity and sexual desirability. Addressing the psychological impact of premature menopause may be as important as addressing the physical impact.

Temporary Menopause

Normal ovarian function can be interrupted, causing a temporary cessation of menstrual periods. Although called "temporary menopause," this condition is not menopause.

Women may experience temporary menopause after chemotherapy, pelvic radiation, and drug therapies, such as GnRH analogues, that may be used to treat uterine fibroids, endometriosis, or severe PMS (premenstrual syndrome). After therapy is discontinued, the ovaries usually resume normal production of estrogen and other hormones. Lifestyle-related issues, such as high levels of emotional stress, over-exercising, and excessive dieting (including eating disorders such as anorexia and bulimia) can also cause periods to stop. Normal function usually resumes when more healthful habits are adopted.

Postmenopause

Postmenopause refers to all the years beyond menopause – whether induced or natural.

Confirming Menopause Status

Perimenopause is usually confirmed through a review of a woman's medical history. Hot flashes and changes in menstrual periods are the most common symptoms a woman in her 40s will notice. In most cases, hormone tests aren't needed. If there is a question regarding hormone levels, tests may be used. In some cases, other causes of symptoms, such as thyroid disease, should be ruled out.

Menopause is confirmed when a woman has not had a menstrual period for 12 consecutive months. As an alternative, elevated follicle-stimulating hormone (FSH) levels are sometimes used to confirm menopause. However, this is not a reliable method because FSH levels can be erratic in perimenopausal women.

FSH is a hormone produced by the pituitary gland to stimulate the ovaries to secrete estrogen. As the aging ovaries' production of estrogen declines, the pituitary gland tries to stimulate greater estrogen production by releasing more FSH into the blood. When a woman's FSH rises to a consistent blood level of 30 mIU/mL or higher, it is generally accepted that she has reached menopause. However, a single FSH level can be misleading in perimenopause since estrogen production doesn't fall steadily day to day. Instead, estrogen and FSH levels fluctuate from fairly high to fairly low. Therefore, more than one high FSH measurement is needed to confirm menopause. It is important to note that if a woman is using certain hormonal contraceptives (such as birth control pills), an FSH test will not be valid. No conclusions can be made regarding the utility of testing for salivary estrogen levels until more data are available.

Menopause Terminology

MENOPAUSE is the end of menstruation, confirmed after 12 consecutive months without a period or when the ovaries are removed or damaged.

PERIMENOPAUSE is the transitional time of up to 6 years or more immediately prior to natural menopause when changes begin, plus 1 year after menopause.

INDUCED MENOPAUSE is immediate menopause caused by a medical or surgical intervention that removes or seriously damages both ovaries.

PREMATURE MENOPAUSE is menopause that occurs before age 40.

POSTMENOPAUSE is all the years beyond menopause.