



The American College of  
Obstetricians and Gynecologists  
WOMEN'S HEALTH CARE PHYSICIANS

# patient education **Fact Sheet**

PFS003: Hormone Therapy APRIL 2015

## Hormone Therapy

*Menopause is the time in a woman's life when she naturally stops having menstrual periods. Menopause marks the end of the reproductive years. The average age of menopause for women in the United States is 51 years.*

*Most women enter a transitional phase in the years leading up to menopause called **perimenopause**. Perimenopause is a time of gradual change in the levels of **estrogen**, a **hormone** that helps control the **menstrual cycle**. Changing estrogen levels can bring on symptoms such as hot flashes and sleep changes. To manage these symptoms, some women may choose to take **hormone therapy**.*

## Your Body's Hormones

During your childbearing years, monthly changes in the production of two hormones—estrogen and **progesterone**—control your menstrual cycle. These hormones are made by the **ovaries**. Estrogen causes the **endometrium** (the lining of the uterus) to grow and thicken to prepare for a possible pregnancy. On about day 14 of your menstrual cycle, an egg is released from one of the ovaries, a process called **ovulation**. If the egg is not fertilized, no pregnancy occurs. This causes the levels of estrogen and progesterone to decrease, which signals the uterus to shed its lining. This shedding is your monthly period.

## Perimenopausal Signs and Symptoms

The signs and symptoms that many women experience during perimenopause are caused by gradually decreasing levels of estrogen. You may have only a few symptoms, or you may have many. Symptoms may be mild, or they may be severe.

### *Changes in Your Menstrual Cycle*

A common sign of perimenopause is a change in your menstrual cycle. Cycles may become longer than usual for you, or they may become shorter. You may begin to skip periods. The amount of flow may become lighter or heavier. Although changes in menstrual bleeding are normal as you approach menopause, you still should report them to your health care provider. Abnormal bleeding may be a sign of a problem. Talk to your health care provider if you have any of the following:

- Bleeding between periods
- Bleeding after sex
- Spotting at anytime in the menstrual cycle
- Bleeding that is heavier or lasts for more days than usual
- Any bleeding after menopause

Although the removal of the uterus (a **hysterectomy**) ends menstrual periods, it does not cause menopause unless the ovaries also are removed. This type of surgery is called an **oophorectomy**. An oophorectomy causes immediate menopause signs and symptoms if it is done before a woman reaches menopause.

## Hot Flashes

Hot flashes are one of the most common symptoms of perimenopause. A hot flash is a sudden feeling of heat that spreads over the face and body. The skin may redden like a blush. You also may break out in a sweat. A hot flash may last from a few seconds to several minutes or longer. Hot flashes are not harmful, but they sometimes are embarrassing and may interfere with daily life.

Some women have hot flashes a few times a month. Others have them several times a day. Hot flashes that happen at night (night sweats) may wake you up and cause you to feel tired and sluggish during the day.

## Vaginal and Urinary Tract Changes

As estrogen levels decrease, changes take place in the **vagina**. Over time, the vaginal lining gets thinner, dryer, and less elastic. Vaginal dryness may cause pain during **sexual intercourse**. Vaginal infections also may occur more often.

The urinary tract also changes with age. The **urethra** can become dry, inflamed, or irritated. Some women may need to urinate more often. Women may have an increased risk of urinary tract infections after menopause.

## Bone Changes and Osteoporosis

Bones are constantly changing throughout life. Old bone is removed in a process called resorption. New bone is built in a process called formation. During the teen years, bone is formed faster than it is broken down. The amount of bone in the body (sometimes called the “bone mass”) reaches its peak during the late teen years. In midlife, the process begins to reverse: Bone is broken down faster than it is made. A small amount of bone loss after age 35 years is normal for men and women. But during the first 4–8 years after menopause, women lose bone more rapidly. This rapid loss occurs because of the decreased levels of estrogen. If too much bone is lost, it can increase the risk of **osteoporosis**. Osteoporosis increases the risk of bone fracture. The bones of the hip, wrist, and spine are affected most often.

## Types of Hormone Therapy

Hormone therapy can help relieve the symptoms of perimenopause and menopause. Hormone therapy means taking estrogen and, if you have never had a hysterectomy and still have a uterus, **progestin**. Progestin is a form of progesterone. Taking progestin helps reduce the risk of cancer of the uterus that occurs when estrogen is used alone. If you do not have a uterus, estrogen is given without progestin. Estrogen plus progestin sometimes is called “combined hormone therapy” or simply “hormone therapy.” Estrogen-only therapy sometimes is called “estrogen therapy.”

### Systemic Therapy

Hormone therapy can be either “systemic” or “local.” These two terms describe where and how the hormones act in the body. With systemic therapy, the hormones are released into your bloodstream and travel to the organs and tissues where they are needed. Systemic forms of estrogen include pills, skin patches, and gels and sprays that are applied to the skin. If progestin is prescribed, it can be given separately or combined with estrogen in the same pill or in a patch.

For women taking estrogen-only therapy, estrogen may be taken every day or every few days, depending on the way the estrogen is given. For women taking combined therapy, there are two types of regimens:

1. Cyclic therapy: Estrogen is taken every day, and progestin is added for several days each month or for several days every 3 months or 4 months.
2. Continuous therapy: Estrogen and progestin are taken every day.

### Local Therapy

Women who only have vaginal dryness may be prescribed “local” estrogen therapy in the form of a vaginal ring, tablet, or cream. These forms release small doses of estrogen into the vaginal tissue. The estrogen helps restore the thickness and elasticity to the vaginal lining while relieving dryness and irritation.

## Benefits, Risks, and Side Effects of Hormone Therapy

Hormone therapy has many benefits, but it also has risks. Side effects also may occur. The following sections summarize the latest information about hormone therapy.

### Benefits

Hormone therapy has the following benefits:

- Systemic estrogen therapy (with or without progestin) has been shown to be the best treatment for the relief of hot flashes and night sweats.

- Systemic and local types of estrogen therapy relieve vaginal dryness.
- Systemic estrogen protects against the bone loss that occurs early in menopause and helps prevent hip and spine fractures.
- Combined estrogen and progestin therapy may reduce the risk of colon cancer.

### **Risks**

As with any treatment, hormone therapy is not without risks. Hormone therapy may increase the risk of certain types of cancer and other conditions:

- Estrogen therapy causes the lining of the uterus to grow and can increase the risk of uterine cancer. Adding progestin decreases the risk of uterine cancer.
- Combined hormone therapy is linked to a small increased risk of heart attack. This risk may be related to age, existing medical conditions, and when a woman starts taking hormone therapy. Some research suggests that for women who start combined therapy within 10 years of menopause and who are younger than 60 years, combined therapy may protect against heart attacks. However, combined hormone therapy should not be used solely to protect against heart disease.
- Combined hormone therapy and estrogen-only therapy are associated with a small increased risk of stroke and **deep vein thrombosis (DVT)**. Forms of therapy not taken by mouth (patches, sprays, rings, and others) have less risk of causing DVT than those taken by mouth.
- Combined hormone therapy is associated with a small increased risk of breast cancer. Currently, it is recommended that women with a history of hormone-sensitive breast cancer try nonhormonal therapies first for the treatment of menopausal symptoms.
- There is a small increased risk of gallbladder disease associated with estrogen therapy with or without progestin. The risk is greatest with forms of therapy taken by mouth.

### **Side Effects**

Combined hormone therapy may cause vaginal spotting. Some women may have heavier bleeding like that of a menstrual period. If you are postmenopausal, it is important to tell your health care provider if you have bleeding. Although it is often an expected side effect of hormone therapy, it also can be a sign of endometrial cancer. All bleeding after menopause should be evaluated.

Other side effects reported by women who take hormone therapy include fluid retention and breast soreness. This soreness usually lasts for a short time.

## **Current Recommendations**

Hormone therapy can help relieve some of the symptoms that affect women at menopause. However, it is important to weigh the benefits and the risks for your individual situation. Before making a decision about hormone therapy, talk to your health care provider about what may work best for you based on your symptoms and your personal and family medical history.

In general, hormone therapy use should be limited to the treatment of menopausal symptoms at the lowest effective dose for the shortest amount of time possible. Continued use should be reevaluated on a yearly basis. Some women may require longer therapy because of persistent symptoms.

## **Other Therapies**

Many women are interested in therapies other than hormone therapy to treat menopause symptoms. Keep in mind that there are concerns about the safety and effectiveness of some of these options. It is important to talk with your health care provider about the risks and benefits of taking any of these alternatives to hormone therapy.

### **Medications**

An **antidepressant** is available for the treatment of hot flashes. Gabapentin, an antiseizure medication, and clonidine, a blood pressure medication, are prescription drugs that can be prescribed to reduce hot flashes and ease sleep problems associated with menopause. Selective estrogen receptor modulators (SERMs) are drugs that act on tissues that respond to estrogen. Two drugs that contain SERMs are available for the relief of hot flashes and pain during intercourse caused by vaginal dryness.

### **Plant-Based Alternatives**

Plants and herbs that have been used for menopause symptoms include soy, black cohosh, and Chinese herbal remedies. Only a few of these substances have been studied for safety and effectiveness. Also, the way that these products are made is not

regulated by the U.S. Food and Drug Administration (FDA). There is no guarantee that the product contains safe ingredients or effective doses of the substance. If you do take one of these products, be sure to let your health care provider know.

### ***Bioidentical Hormones***

Bioidentical hormones come from plant sources. They include commercially available products and compounded preparations. Compounded bioidentical hormones are made by a compounding pharmacist from a health care provider's prescription. Compounded drugs are not regulated by the FDA. They have the same risks as FDA-approved hormone therapies, and they also may have additional risks because of the way they are made. There is no scientific evidence that compounded hormones are safer or more effective than standard hormone therapy.

### ***Vaginal Moisturizers and Lubricants***

Vaginal moisturizers and lubricants are over-the-counter products that can be used to help with vaginal dryness and painful sexual intercourse. They do not contain hormones, so they do not have an effect on the vagina's thickness or elasticity. Vaginal moisturizers replace moisture and restore the natural acidity of the vagina. You can use a moisturizer every 2–3 days as needed.

Lubricants can be used each time you have sexual intercourse. There are many types of lubricants. Water-soluble lubricants are easily absorbed into the skin and may have to be reapplied frequently. Silicone-based lubricants last longer and tend to be more slippery than water-soluble types. Oil-based lubricants include petroleum jelly, baby oil, or mineral oil. Oil-based types should not be used with latex condoms because they can weaken the latex and cause the condom to break.

## **Follow-up**

If you choose to take hormone therapy, regular follow-up is important. Your need to take hormone therapy may change. Benefits and risks also may change over time. Your health care provider should assess your continued use of hormone therapy on a yearly basis. At your yearly visits, tell your health care provider if you have any new symptoms. Let your health care provider know how well the hormone therapy is working. Report any side effects, especially vaginal bleeding, to your health care provider right away.

## **Glossary**

***Antidepressant:*** A medication that is used to treat depression.

***Deep Vein Thrombosis (DVT):*** A condition in which a blood clot forms in veins in the leg or other areas of the body.

***Endometrium:*** The lining of the uterus.

***Estrogen:*** A female hormone produced in the ovaries.

***Hormone:*** A substance made in the body by cells or organs that controls the function of cells or organs. An example is estrogen, which controls the function of female reproductive organs.

***Hormone Therapy:*** Treatment in which estrogen, and often progestin, is taken to help relieve some of the symptoms caused by low levels of these hormones.

***Hysterectomy:*** Removal of the uterus.

***Menopause:*** The time in a woman's life when menstruation stops; defined as the absence of menstrual periods for 1 year.

***Menstrual Cycle:*** The monthly process of changes that occur to prepare a woman's body for possible pregnancy. A menstrual cycle is defined from the first day of menstrual bleeding of one cycle to the first day of menstrual bleeding of the next cycle.

***Oophorectomy:*** Removal of one or both of the ovaries.

***Osteoporosis:*** A condition in which the bones become so fragile that they break more easily.

***Ovaries:*** The paired organs in the female reproductive system that contain the eggs released at ovulation and produce hormones.

***Ovulation:*** The release of an egg from one of the ovaries.

***Perimenopause:*** The period before menopause that usually extends from age 45 years to 55 years.

***Progesterone:*** A female hormone that is produced in the ovaries and that prepares the lining of the uterus for pregnancy.

***Progestin:*** A synthetic form of progesterone that is similar to the hormone produced naturally by the body.

**Sexual Intercourse:** The act of the penis of the male entering the vagina of the female (also called “having sex” or “making love”).

**Urethra:** A tube-like structure through which urine flows from the bladder to the outside of the body.

**Vagina:** A tube-like structure surrounded by muscles leading from the uterus to the outside of the body.

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