



## Hormone Therapy

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### What is hormone therapy?

Hormone therapy involves taking certain hormones to help relieve some of the symptoms of menopause.

### What are hormones?

Hormones are substances that control how certain organs work. They are made by glands in the body, but also can be made in a lab.

Androgens, so-called male hormones, are made by the ovaries (two glands on either side of the uterus) in women and by the testes in men. In women, androgens are used by the ovaries to make estrogen, the so-called female hormone. The ovaries make estrogen from puberty until menopause.

### How does estrogen affect the reproductive system?

In women, the hormone estrogen plays a key role in the reproductive system. Changes in the level of estrogen lead to menstrual periods each month. Estrogen also affects a woman's bones and the health of her heart and blood vessels.

Estrogen is made during the entire menstrual cycle. It causes the lining of the uterus (the endometrium) to thicken each month.

## How do estrogen levels change over time?

The amount of estrogen produced by the ovaries decreases as a woman ages. At some point, the ovaries stop making enough estrogen to thicken the uterine lining. This is when the menstrual periods stop and menopause occurs. The average age when a woman has her last menstrual period is 51 years, but the normal range is from ages 45 years to 55 years.

If a woman's ovaries are removed during surgery, her estrogen level will decrease suddenly. In most women, this brings on symptoms of menopause. Women can take hormones to relieve symptoms of menopause.

## What are some of the symptoms of menopause that are caused by decreased estrogen levels?

Lack of estrogen can cause symptoms such as hot flashes and vaginal dryness. It also can increase the risk of **osteoporosis** (bone loss).

### What are hot flashes?

A hot flush 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 flush may last from a few seconds to several minutes or longer.

Hot flashes may occur a few times a month or several times a day, depending on the woman. Hot flashes can happen anytime—day or night. When they occur at night, they can disrupt your sleep. Estrogen can help relieve hot flashes.

## How does loss of estrogen affect the vagina and urinary tract?

Loss of estrogen causes changes in the vagina. Its lining may become thin and dry. These changes can cause pain during sexual intercourse. They also can make the vagina more prone to infection, which can cause burning and itching.

The urinary tract also changes with age. The urethra (the tube that carries urine from the bladder) can become dry, inflamed, or irritated. Some women may need to urinate more often. Women may have an increased risk of bladder infection after menopause. Hormone therapy can help relieve the symptoms of these changes.

## How does hormone therapy help protect against osteoporosis?

In many cases, osteoporosis in women results from low estrogen levels (see the FAQ [Osteoporosis](#)). Estrogen helps protect against bone loss. After menopause, a woman's bones slowly lose strength and become more fragile. As a result, older women are more likely to break bones. The hip, wrist, and spine are affected most often.

Hormone therapy can help slow bone loss after menopause. Estrogen helps preserve bone and works with other hormones to increase bone mass.

## What are some factors that should be considered when deciding whether to take hormone therapy?

The decision to take hormone therapy depends on your personal needs:

- Medical and family history
- Symptoms
- Risk of bone loss
- Age at menopause

## How is hormone therapy administered?

- If you have a uterus, hormone therapy includes both estrogen and another hormone called progestin. Using estrogen alone causes the lining of the uterus to grow and increases the risk of endometrial cancer. The progestin keeps the lining of the uterus from growing too

much. Hormone therapy can be given in many ways: orally, vaginally (cream, pill, or ring), or transdermally (through the skin). When you take it depends on the type of therapy:

- Cyclic therapy: Estrogen is taken for 25 days or more and progestin is added on certain days. The exact times may vary. During the time when the progestin is not taken, you may have some bleeding.
- Combined therapy: Estrogen and a low dose of progestin are taken every day. It is common to have irregular bleeding the first few months, but within 1 year, most women stop all bleeding.
- Estrogen only therapy: Estrogen is taken every day for 25 days per month or more.

### What are the risks associated with the use of hormone therapy?

The Women's Health Initiative, a study by the National Institutes of Health, found that use of hormone therapy could increase the risk of heart attacks, strokes, blood clots, and breast cancer for some women. The risks may vary depending on how far a woman is past menopause. It is recommended that a woman take the smallest dose of hormone therapy that works for her, for the shortest possible time.

Also, monthly bleeding may resume. Although bleeding may occur for only a short time, many women do not want to have menstrual cycles at all and may find this side effect bothersome.

### Are there other options available that can treat menopause symptoms?

Some women concerned about hormone therapy may try other options, such as antidepressants, herbal products, or bioidentical hormones, to relieve symptoms of menopause. For many of these products, limited facts are available. Some products may be helpful in the short-term treatment of symptoms, whereas others are not. Still others may cause harm. Herbal products and bioidentical hormones are not approved by the Food and Drug Administration.

### Glossary

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

### If you have further questions, contact your obstetrician–gynecologist.

Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to institution or type of practice, may be appropriate.