

# Hormone Replacement Therapy

## General Information

**What is it?** Hormone replacement therapy (HRT) is a treatment for women who have low hormone levels, like a woman going through menopause. HRT also is called estrogen (es-tro-jin) replacement therapy or ERT. With HRT a woman takes estrogen, and often progestin (pro-jes-tin), to help the symptoms caused by low hormone levels in her body.

### What are hormones and how do they work?

- Hormones are special chemicals that your body makes. The job of hormones is to control how different parts of your body work. The main female hormones are estrogen and progesterone (pro-jes-ter-own) which are made by your ovaries. These hormones are a very important part of your reproductive system.
- Estrogen is made during your menstrual cycle. Its job is to grow a thick layer of tissue inside the uterus (womb) each month. Estrogen also affects your bones and the health of your heart and blood vessels. Progesterone is made by your ovaries during the second half of your menstrual cycle. It further thickens the lining of the uterus. During menopause, usually in the late 40s or early 50s, your ovaries slowly stop making these hormones.

### What are the reasons I may not have enough estrogen?

- **Menopause.** The most common reason for having low estrogen is menopause. Another name for menopause is “change of life” or “the change.” This is a time in a woman’s life when menstrual or monthly periods slow down and with time, completely stop. Menopause usually begins at ages 45-50. The average age when a woman’s monthly period stops is 51 years. But a woman can go through menopause much younger.
- **Removal of ovaries.** Estrogen levels will drop if a woman has both ovaries removed. Menopause symptoms start right away when the ovaries are removed because there is no more estrogen.
- **Other reasons.** Too much exercise may cause your estrogen level to drop, which can stop your monthly periods. Your estrogen level may also drop if you lose large amounts of weight.
- **What are the signs and symptoms of a low estrogen level?** You can have physical and emotional changes when your estrogen level is low.
- **Hot flashes.** This is the most common symptom of menopause. A hot flash is a sudden feeling of heat that spreads throughout your body. Your skin may also sweat or blush. Hot flashes usually happen at night and may wake you up. You may have hot flashes on and off for many years.
- **Osteoporosis (ah-stee-o-per-o-sis).** This is also called bone loss. After menopause a woman’s bones begin losing calcium and protein. This may cause brittle bones, which can make older women more likely to break bones.
- **Heart and blood vessel disease.** Heart disease is the leading cause of death of women in the United States. Estrogen seems to help prevent heart disease. You are more likely to have heart and blood vessel disease after menopause.
- **Emotional changes.** Low estrogen levels may cause emotional changes. These emotional changes may be linked to physical changes, like losing sleep because of hot flashes. Some women feel nervous, depressed, tired, or short-tempered. You also may have concentration problems (staying focused).

- **Vaginal dryness.** The lining of the vagina may get thinner and less elastic because of dropping estrogen levels. A decrease in estrogen may cause your vagina to become dry. These changes may cause you to have pain during sex.

**Will HRT help these symptoms?** You may choose to take HRT to help or prevent the symptoms of low estrogen. Hot flashes and night sweats will occur less often and may possibly go away if you take estrogen. Estrogen helps prevent vaginal dryness and thinning of the tissue inside the vagina. Your chances of breaking a bone are much lower if you take estrogen. HRT may also improve your mood and memory. HRT may reduce your risk of heart disease.

### **Is HRT safe?**

- HRT is not right for everyone. There is some concern that taking estrogen may cause cancer of the endometrium (end-o-mee-tree-um). The endometrium is the lining of your uterus. You do not need to worry about this if you have had your uterus removed during surgery. Taking progestin with estrogen may decrease the risk of getting this kind of cancer. Progestin is a man-made kind of progesterone. It is not known if progestin blocks any of the benefits that estrogen adds to prevent heart disease.
- Any vaginal bleeding should be carefully watched if you choose not to take progestin. You may have vaginal bleeding once a month if you take progestin with estrogen.
- There does seem to be a link between HRT and breast cancer. You should do a breast self-exam every month. You and your caregiver can decide when you should have a mammogram. Your caregiver may suggest you have a mammogram if your mother or sister had breast cancer.
- Your caregiver will help you decide if you can safely take HRT. Tell your caregiver if you have any of the following.
  - Blood clotting problems.
  - Breast cancer.
  - Cancer in the lining of your uterus.
  - Liver disease.
  - Think you may be pregnant.
  - Vaginal bleeding problems.

**Are there side effects with HRT?** Following are possible side effects of HRT.

- Abdominal (belly) cramping.
- Headaches.
- Mood changes.
- Nausea (upset stomach).
- Possible breast cancer.
- Possible endometrial cancer.
- Possible weight gain.
- Swelling of abdomen, hands, or feet.
- Swollen breasts and breast tenderness.
- Uterine bleeding.

**How long do I need to take HRT?** Bone loss is highest during the early years after menopause. To get the best results, HRT should start soon after the beginning of menopause. You should continue with HRT for at least seven to 10 years. You and your caregiver can decide how long you should take HRT. You will need long-term treatment if you are trying to prevent heart disease or osteoporosis. Bone loss will begin right away when you stop taking HRT.

## How do I take HRT?

- There are different ways to take HRT. The most common way to take HRT is as a pill. But estrogen may be given as a skin patch or as a cream or ointment to be put into your vagina. An implant is another way to take estrogen. A pellet that contains pure estrogen is put beneath the skin and fatty layer of your abdomen or buttock. The pellet releases estrogen for four to eight months.
- Many women take estrogen and progestin. The amount of each hormone needed to reduce or prevent menopause symptoms is different from woman to woman. Your caregiver may need to change the amount of estrogen or progestin that you take.
- You may only need to take estrogen if you have had a hysterectomy (hiss-ter-ek-tuh-mee). This is because there is no risk of getting endometrial cancer since your uterus has been removed.

**Are there other ways to prevent bone loss or heart disease without HRT?** Eating foods that are rich in calcium and low in fat is one way to control bone loss and heart disease. Caregivers may give you medicine to prevent bone loss or heart disease. Other ways to prevent bone loss and heart disease are to exercise regularly and to limit the amount of alcohol that you drink. You should not have more than one drink a day. A drink is 1½ ounces of whiskey, 5 ounces of wine, or 12 ounces of beer (regular or light). If you smoke, you should quit.

**How often should I see my caregiver if I take HRT?** Call your caregiver if you are bleeding from your vagina or have other side effects that are bothering you. You should see your caregiver every year for a checkup. Your caregiver may want you to have the following tests.

- **Pap smear.** This is a test to check for cancer of the cervix. The cervix is the bottom part of your uterus. You should have a Pap smear every year.
- **Blood pressure check.** Your blood pressure should be checked every year.
- **Mammogram.** This is an X-ray of the breasts. Tell your caregiver if you have had a mammogram that is not normal. The American Cancer Society suggests women age 40 or older have a mammogram every year.
- **Endometrial biopsy.** This is when a small piece of tissue is removed from the lining of the uterus. It is then sent to the lab to be tested for cancer. You should have an endometrial biopsy every year if you are only taking estrogen.
- **Blood cholesterol levels.** Estrogen helps keep a higher level of HDL cholesterol. This is the “good” cholesterol that protects against heart disease. Estrogen decreases the LDL level, which is the “bad” kind of cholesterol. As your body makes less estrogen during menopause, the HDL level goes down while the LDL goes up.

**Where can I get more information about HRT?** You can call or write the following organizations for more information:

- American Heart Association, 7272 Greenville Ave., Dallas, TX 75231-4596. Telephone: (800) 242-8721.
- National Cancer Institute. Web: [www.oncolink.upenn.edu/pdq\\_html/6/engl/600310.html](http://www.oncolink.upenn.edu/pdq_html/6/engl/600310.html).
- National Heart, Lung, and Blood Institute, P.O. Box 30105, Bethesda, MD 20824-0105. Telephone: (301) 592-8573.
- National Osteoporosis Foundation, 1150 17th St. N.W., No. 500, Washington, DC 20036. Telephone: (800) 223-9994.
- Office of Research on Women’s Health, National Institutes of Health, Building 1, Room 201, Bethesda, MD 20892-0161. Telephone: (301) 402-1770.
- The American College of Obstetricians and Gynecologists, 409 12th St. S.W., Washington, DC 20024-2188. Telephone: (202) 638-5577.

**CARE AGREEMENT:**

You have the right to help plan your care. To help with this plan you must learn about hormone replacement therapy. You can then discuss the treatment options with caregivers. Work with them to decide what care will be used to treat your decreasing estrogen levels. You always have the right to refuse treatment.

*Source:* Klasco R, Auracher P (Eds). CareNotes™ System. MICROMEDEX Inc., Englewood, CO (Edition expires 9/2001).