

What does estrogen do?

Estrogen is one of two main sex hormones that women have. The other one is **progesterone**. Estrogen is responsible for female physical features and reproduction. Men have estrogen, too, but in smaller amounts.

Why is estrogen important?

Estrogen helps bring about the physical changes that turn a girl into a woman. This time of life is called puberty. These changes include:

- Growth of the breasts
- Growth of pubic and underarm hair
- Start of menstrual cycles

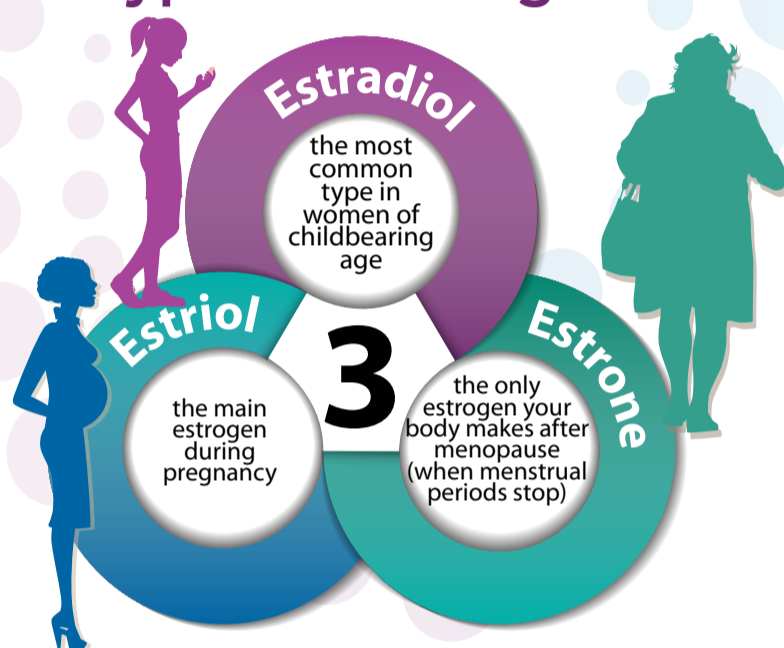
Estrogen helps control the menstrual cycle and is important for childbearing. This hormone has other functions:

- Keeps cholesterol in control
- Protects bone health for both women and men
- Affects your brain (including mood), bones, heart, skin, and other tissues

How does estrogen work?

The ovaries, which produce a woman's eggs, are the main source of estrogen from your body. Your adrenal glands, located at the top of each kidney, make small amounts of this hormone. So does fat tissue. Estrogen moves through your blood and acts everywhere in your body.

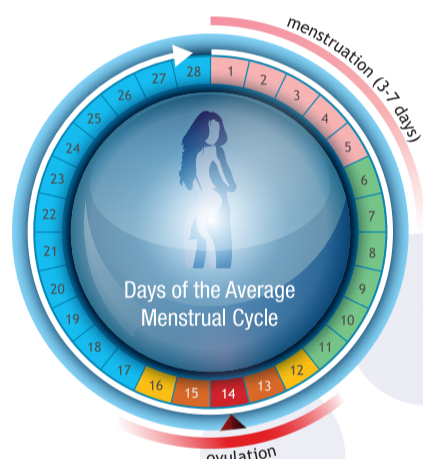
Your body makes three main types of estrogen:



What can go wrong with estrogen levels?

For many reasons, your body can make too little or too much estrogen. Or, you can take in too much estrogen, such as through birth control pills or estrogen replacement therapy.

You might want to keep track of your symptoms (changes you feel) by writing them down each day. Bring this symptom journal to your doctor.



Estrogen and your menstrual cycle

Your estrogen levels change throughout the month. They are highest in the middle of your menstrual cycle and lowest during your period. Estrogen levels drop at menopause.

How do you know what your estrogen level is?

You will need to give a blood or urine sample to test your estrogen. Ask your doctor what your test results mean.

Low

Women. The most common reason for low estrogen in women is menopause or surgical removal of the ovaries.

Symptoms of low estrogen include:

- Menstrual periods that are less frequent or that stop
- Hot flashes (suddenly feeling very warm) and/or night sweats
- Trouble sleeping
- Dryness and thinning of the vagina
- Low sexual desire
- Mood swings
- Dry skin

Some women get menstrual migraine, a bad headache right before their menstrual period, because of the drop in estrogen.

Men. Low estrogen in men can cause excess belly fat and low sexual desire.

High

Women. Excess estrogen can lead to these problems, among others:

- Weight gain, mainly in your waist, hips, and thighs
- Menstrual problems, such as light or heavy bleeding
- Worsening of premenstrual syndrome
- Fibrocystic breasts (non-cancerous breast lumps)
- Fibroids (noncancerous tumors) in the uterus
- Fatigue
- Loss of sex drive
- Feeling depressed or anxious

Men. High estrogen in men can cause:

- Enlarged breasts (gynecomastia)
- Poor erections
- Infertility

Words to know

endocrinologist (EN-doh-krih-NOLL-uh-jist): a doctor who treats people who have hormone problems, such as low estrogen.

hormone (HOR-mohn): a chemical made in a gland in one part of the body. The hormone travels through the blood to another part of the body, where it helps other cells do their job.

sex hormone: a hormone that affects and is made by the reproductive (sex) organs. It is responsible for secondary sex traits, such as breasts in women.

Where to learn more

Hormone Health Network estrogen information:

- Women's health: hormone.org/diseases-and-conditions/womens-health
- Gynecomastia (male breast enlargement): hormone.org/questions-and-answers/2011/gynecomastia

National Institutes of Health information:

- Estradiol test: nlm.nih.gov/medlineplus/ency/article/003711.htm

To find an endocrinologist near you: hormone.org or call 1.800.HORMONE (1.800.467.6663)

Patients have questions. We have answers.

The Hormone Health Network is your trusted source for endocrine patient education. Our free, online resources are available at hormone.org