

# WHAT DOES ESTROGEN DO?

Estrogen are a group of hormones that play an important role in the sexual and reproductive development in women. Men have estrogen too but in smaller amounts.

## THE THREE TYPES OF ESTROGEN



**ESTRADIOL**

the most common type in women of childbearing age.



**ESTRIOL**

the main estrogen produced during pregnancy.



**ESTRONE**

the only estrogen your body makes after menopause.

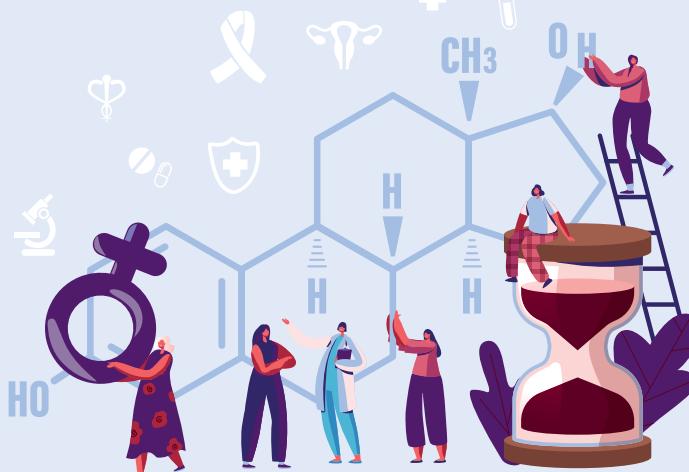
## WHY IS ESTROGEN IMPORTANT?

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
- Helps control the menstrual cycle and important for child bearing

In women and men estrogen helps control:

- sexual desire
- erectile function
- lipid metabolism
- brain function
- bone health
- skin health



## HOW DOES ESTROGEN WORK?

The ovaries, which produce a woman's eggs, are the main source of estrogen from your body. Fat tissue and your adrenal glands, located at the top of each kidney, make small amounts of this hormone.



Visit [endocrine.org/menopausemap](http://endocrine.org/menopausemap) for more information.

Editor: Subbulaxmi Trikudanathan, MD, MRCP

## ESTROGEN AND YOUR MENSTRUAL CYCLE

Estrogen is one of the main sex hormones controlling the menstrual cycle. 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.



## THE LOWS OF ESTROGEN

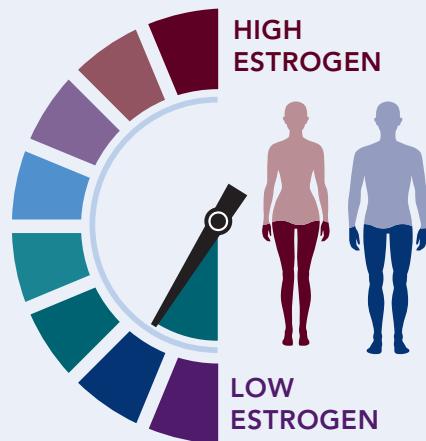
**WOMEN.** The most common reason for low estrogen in women is menopause or surgical removal of the ovaries.

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
- Vaginal dryness and thinning

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.



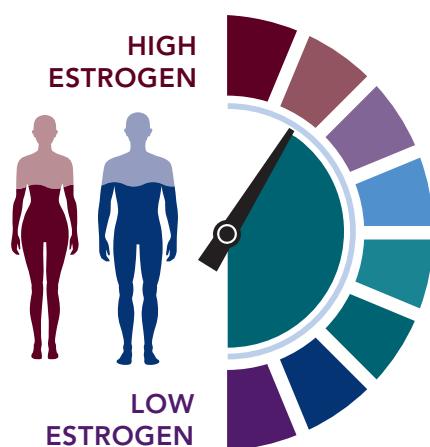
## THE HIGHS OF ESTROGEN

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

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Weight gain, mainly in your waist, hips, and thighs</li><li>• Menstrual problems, such as light or heavy bleeding</li><li>• Worsening of premenstrual syndrome (PMS)</li><li>• Fibrocystic breasts (non-cancerous breast lumps)</li></ul> | <ul style="list-style-type: none"><li>• Fibroids (noncancerous tumors) in the uterus</li><li>• Mood swings</li><li>• Feeling depressed or anxious</li><li>• Breast swelling and tenderness</li><li>• Low sexual desire</li><li>• Fatigue</li></ul> |
|---|--|

**MEN.** High estrogen in men can cause:

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• Enlarged breasts (gynecomastia)</li><li>• Poor erections</li><li>• Infertility</li></ul> | <ul style="list-style-type: none"><li>• Loss of sex drive</li><li>• Erectile dysfunction (ED)</li><li>• Dry skin</li></ul> |
|--|--|



**Patients have questions. We have answers.**

Endocrine Society is your trusted source for endocrine patient education.

Our free, Menopause Map™ My Personal Path is available at [endocrine.org/menopausemap](http://endocrine.org/menopausemap).