

# How High vs. Low Estrogen Affects Men



Medically reviewed by **Matt Coward, MD, FACS** — Written by on January 3, 2021

**Normal levels of estrogen**    **Is high estrogen bad?**

**Symptoms of high and low estrogen**    **Causes of high estrogen**

**Vs. low estrogen**    **Getting help**    **Management tips**

Estrogen is a type of sex hormone that's commonly known to be responsible for the development of certain body parts, functions, and systems. Estrogen is present in people of all genders and has different functions based on your biological sex.

Depending on your body, estrogen may affect areas such as your:

- bones
- cardiovascular system
- libido
- erectile and sperm function
- breasts
- uterus
- vagina
- menstrual function

But estrogen is not just one hormone. In fact, it's a group of three structures known as estrone, estradiol, and estriol. Of those three, estradiol is the main form of estrogen that contributes to male sexual function.

Testosterone belongs to a group of hormones called androgens. In people who are assigned male at birth, testosterone tends to be the predominant hormone for sexual development and function, but that doesn't mean estrogen isn't important for males. In fact, both hormones are necessary, and they often work in balance to each other.

Historically underappreciated piles of research have found that estrogen is useful and crucial for males, with roles including promoting sexual function, regulating cholesterol, and maintaining bone density.

Sometimes, androgens in the male body can be transformed into estrogen by an enzyme called aromatase. Males whose aromatase activity is low enough that they can't make estrogen may experience:

- abnormal bone formation
- metabolic syndromes
- fertility impairment

Too much or too little estrogen could lead to side effects like infertility, heart disease, and bone loss.

Keep reading to learn:

- what normal levels of estrogen are
- benefits of estrogen
- symptoms of too much or too little estrogen
- how to manage high or low estrogen levels

As you read, remember that there's nothing gendered about estrogen or testosterone. Estrogen levels don't dictate gender or masculinity, and the belief that they do can cause a lot of pressure and shame.



Milles Studio/Stocksy United

## What are the normal levels of estrogen and testosterone?

According to [Dr. Amin Herati](#), a urologist and the director of male infertility and men's health at Johns Hopkins Medicine, there is no normal level of estrogen or testosterone. It's all about balance.

"We're looking for a testosterone-to-estrogen ratio, and their [testosterone-to-estrogen] levels should be 15 to 1... but too little of [estrogen] can be devastating for guys," he says.

## Should I be worried about high estrogen?

This depends on whether you're experiencing symptoms.

"If [a patient's] testosterone level is three times the expected normal and their estrogen level is also above normal, I won't recommend any therapy as long as they're asymptomatic," says Herati. "The high level doesn't always necessitate treatment."

That's great news, because your levels of estrogen and testosterone can vary

throughout your life as you age and experience weight changes or illnesses.

According to the Endocrine Society, the average male has 10 to 40 picograms of estradiol per milliliter of blood. In comparison, a male has roughly 300 to 1,200 nanograms of testosterone per deciliter of blood. It's OK if your levels are different from these, as long as this ratio is preserved.

## Symptoms of high or low estrogen

If your hormones are out of balance, you might start to experience some side effects. And if they're severe, meaning they're affecting your day-to-day functioning, you may want to contact your doctor. Since many symptoms of high and low estrogen overlap, talking with a doctor is your best bet for addressing any issues.

### Symptoms of high estrogen

- erectile dysfunction
- migraines
- weight fluctuation, specifically weight gain\*
- depression
- high blood pressure in the lungs (pulmonary hypertension)\*
- prostate cancer\*
- enlarged breast tissue (gynecomastia)

## High estrogen may also indicate a high risk of:

- gynecomastia (large breast growth)
- diabetes
- cardiovascular issues like blood clots and stroke
- breast or prostate cancer

## Symptoms of low estrogen

- delayed ejaculation
- coronary heart and artery diseases\*
- delayed growth during puberty
- bone loss, pain, and osteoporosis\*
- weight gain and insulin resistance\*
- depression

*Symptoms marked with an asterisk (\*) could become severe enough to warrant consulting a doctor.*

### GREATIST NEWSLETTER

## Be your Greatist, every day

No jade eggs. Just real tips and ways to make health matter.

YES, PLEASE

☐

Send me offers from Greatist partners

Your privacy is important to us. Any information you provide to us via this website may be placed by us on servers located in countries outside of the EU. If you do not agree to such placement, do not provide the information.

## Causes of high estrogen

Your body can have naturally high levels of estrogen, and as long as it's balanced out with testosterone, you're good to go. But lots of factors can throw estrogen levels out of balance, including:

- weight gain
- older age
- stress
- tumors
- hormonal conditions

However, the main cause of high estrogen levels is often consumption of estrogen-containing supplements, such as workout supplements or anabolic steroids. Anabolic steroids, in particular, increase the amount of androgens that may be converted into estrogen.

“There is an indirect relationship (with age); many 60-year-olds have more estrogen in their body than a 30-year-old,” says Herati. Male testosterone levels naturally drop 1 to 2 percent every year after age 30. By age 75, a male will have lost about 30 percent of the testosterone they had at 25.

But both testosterone and estrogen are also linked to metabolism. So as testosterone decreases, one's weight tends to increase, as the buildup of fat is linked to estrogen production, says Herati.

This is because fat tissue buildup is linked to increased production of aromatase, the enzyme that transforms testosterone into estrogen.

“There are also certain tumors, like testicular tumors, that can increase the expression of the aromatase enzyme,” he says.

That's why you'll hear weight loss mentioned as the first step in addressing high estrogen levels.

“Being more meticulous about what you're eating and exercising regularly are going to be the best ways to trim the fat,” Herati says.

Certain hormone therapies — such as hCG, which helps boost testosterone in

men — can also increase estrogen production because they “[sensitize] the testicles to produce more of that enzyme,” he says.

## Causes of low estrogen

While aging might indirectly increase estrogen through weight gain, it also directly results in a decrease in estrogen. Research has found that as testosterone decreases with age, estrogen also decreases in order to keep the precious balance.

Other health conditions that can result in decreased estrogen production include:

- cardiovascular diseases
- autoimmune conditions
- hemochromatosis (too much iron in your blood)
- hypogonadism (a condition that results in reduced sex hormone production)
- extremely low body weight

## How will a doctor help manage the risks of unbalanced estrogen?

According to Herati, it’s important to consult a doctor if you think you have unbalanced estrogen levels and not to take action on your own.

“The safest approach is to do everything with the clinician,” he says. “Self-diagnosis and self-medication can be very dangerous.”

According to Herati, often, when someone thinks they’re experiencing low estrogen, they’re actually experiencing another condition. Symptoms like weight gain or changes in sexual performance can result from many factors other than your estrogen levels.

## Testing your estrogen levels

A typical test for estrogen levels may require you to give a blood, urine, or saliva sample. Herati says these samples will then be tested for levels of estrogens such as estradiol and compared against levels of testosterone.

“There are guys that come in when they’re convinced that their hormones are off... But when you test their testosterone level and their estrogen, all these find that they’re totally normal,” he says.

## How to manage estrogen levels

If a doctor confirms you have an estrogen imbalance, they may take any of several treatment routes. If they determine that you have a preexisting medical condition, they’ll likely treat that condition first, since an estrogen imbalance can result from many illnesses.

But if high or low estrogen is your only issue, your doctor may prescribe medication or recommend other strategies such as changes to your diet and exercise routine.

## Diet

As mentioned above, Herati recommends weight loss as the “number one” method to balance out your estrogen. As far as diet goes, sticking to a whole-foods diet that’s low in fat and high in fiber may help. For weight management, some diet plans may help.

Foods that are high in estrogen compounds include:

- soybeans
- garlic
- celery
- carrots
- potatoes and sweet potatoes
- apples
- coffee



- flaxseed

## **Do I need to avoid dairy and soy?**

Short answer: No.

While some research has suggested that foods like dairy and soy could impact estrogen production and affect your hormonal balance, it's not definitive. Some studies also suggest that the average person's consumption of dairy and soy is too low for this to be a risk.

However, you may want to avoid foods containing synthetic hormones. If you eat a plant-based or vegan diet that relies on soy as a source of protein, be mindful of your intake, as this could also contribute to higher estrogen levels.

If you need a specific list of foods, make sure to talk with your doctor.

## **Exercise**

Aim to move two or three times a week for 20 to 30 minutes. Some tips for getting started:

- Start slow and steady with easy exercises, like bodyweight moves for beginners.
- Find at-home workouts that are doable for you.
- Use simple equipment, such as resistance bands, to enhance your workouts.
- Get to know cardio basics like burpees and mountain climbers.

## **Medications**

Herati says there are two classes of drugs used to block either the production or the activity of estrogen. But he stresses that you should never take these drugs or over-the-counter products unless directed by your doctor — they could make

things far worse.

If your doctor thinks you need to address a decrease in your estrogen levels that was caused by a health condition, they may talk with you about hormone replacement therapy.

## What not to do:

- Don't take testosterone-enhancing products without your doctor's approval.
- Don't just assume you have an imbalance. Always get tested first.
- Don't take medication without consulting your doctor.
- Don't assume estrogen dictates your gender or masculinity.

## When in doubt, test your estrogen levels

It's better to be safe than sorry when it comes to your hormonal health, says Herati. A quick blood or urine test doesn't take much effort, and it could have significant effects on your life.

"Do your due diligence. Get seen and evaluated," says Herati. "If testosterone levels and/or estradiol are off-kilter, it can have significant effects on a person's longevity, their cardiovascular health, cerebrovascular health."

These symptoms, especially when they're interfering with your day-to-day life, can end up taking a huge toll on your emotional and physical health.

ADVERTISEMENT

Last medically reviewed on January 3, 2021

+ [24 sources](#)

FEEDBACK:  

 PIN IT





