**Gynecomastia (enlarged breasts in men)**

*By Mayo Clinic Staff*

Gynecomastia is swelling of the breast tissue in boys or men, caused by an imbalance of the hormones estrogen and testosterone. Gynecomastia can affect one or both breasts, sometimes unevenly. Newborns, boys going through puberty and older men may develop gynecomastia as a result of normal changes in hormone levels, though other causes also exist.

Generally, gynecomastia isn't a serious problem, but it can be tough to cope with the condition. Men and boys with gynecomastia sometimes have pain in their breasts and may feel embarrassed.

Gynecomastia may go away on its own. If it persists, medication or surgery may help.

Signs and symptoms of gynecomastia include:

- Swollen breast gland tissue
- Breast tenderness

**When to see a doctor**

See your doctor if you have:

- Swelling
- Pain
- Tenderness
- Nipple discharge in one or both breasts

Gynecomastia is triggered by a decrease in the amount of the hormone testosterone compared with estrogen. The cause of this decrease can be conditions that block the effects of or reduce testosterone or a condition that increases your estrogen level. Several things can upset the hormone balance, including the following.

**Natural hormone changes**

The hormones testosterone and estrogen control the development and maintenance of sex characteristics in both men and women. Testosterone controls male traits, such as muscle mass and body hair. Estrogen controls female traits, including the growth of breasts.
Most people think of estrogen as an exclusively female hormone, but men also produce it — though normally in small quantities. However, male estrogen levels that are too high or are out of balance with testosterone levels can cause gynecomastia.

- **Gynecomastia in infants.** More than half of male infants are born with enlarged breasts due to the effects of their mother's estrogen. Generally, the swollen breast tissue goes away within two to three weeks after birth.
- **Gynecomastia during puberty.** Gynecomastia caused by hormone changes during puberty is relatively common. In most cases, the swollen breast tissue will go away without treatment within six months to two years.
- **Gynecomastia in men.** The prevalence of gynecomastia peaks again between the ages of 50 and 80. At least 1 in 4 men in this age group are affected.

**Medications**

A number of medications can cause gynecomastia. These include:

- Anti-androgens used to treat prostate enlargement, prostate cancer and some other conditions. Examples include flutamide, finasteride (Proscar, Propecia) and spironolactone (Aldactone).
- Anabolic steroids and androgens.
- AIDS medications. Gynecomastia can develop in HIV-positive men who are receiving a treatment regimen called highly active antiretroviral therapy (HAART). Efavirenz (Sustiva) is more commonly associated with gynecomastia than are other HIV medications.
- Anti-anxiety medications, such as diazepam (Valium).
- Tricyclic antidepressants.
- Antibiotics.
- Ulcer medications, such as cimetidine (Tagamet).
- Cancer treatment (chemotherapy).
- Heart medications, such as digoxin (Lanoxin) and calcium channel blockers.

**Street drugs and alcohol**

Substances that can cause gynecomastia include:

- Alcohol
- Amphetamines
- Marijuana
- Heroin
- Methadone
Health conditions

Several health conditions can cause gynecomastia by affecting the normal balance of hormones. These include:

- **Hypogonadism.** Any of the conditions that interfere with normal testosterone production, such as Klinefelter syndrome or pituitary insufficiency, can be associated with gynecomastia.
- **Aging.** Hormone changes that occur with normal aging can cause gynecomastia, especially in men who are overweight.
- **Tumors.** Some tumors, such as those involving the testes, adrenal glands or pituitary gland, can produce hormones that alter the male-female hormone balance.
- **Hyperthyroidism.** In this condition, the thyroid gland produces too much of the hormone thyroxine.
- **Kidney failure.** About half the people being treated with regular hemodialysis experience gynecomastia due to hormonal changes.
- **Liver failure and cirrhosis.** Hormonal fluctuations related to liver problems as well as medications taken for cirrhosis are associated with gynecomastia.
- **Malnutrition and starvation.** When your body is deprived of adequate nutrition, testosterone levels drop, but estrogen levels remain constant, causing a hormonal imbalance. Gynecomastia can also occur once normal nutrition resumes.

Herbal products

Plant oils, such as tea tree or lavender, used in shampoos, soaps or lotions have been associated with gynecomastia. This is probably due to their weak estrogenic activity.

Risk factors for gynecomastia include:

- Adolescence
- Older age
- Use of anabolic steroids or androgens to enhance athletic performance
- Certain health conditions, including liver and kidney disease, thyroid disease, hormonally active tumors, and Klinefelter syndrome

Gynecomastia has few physical complications, but it can cause psychological or emotional problems caused by appearance.
Your doctor will ask you questions about your medical and drug history and what health conditions run in your family. The doctor will also do a physical examination that may include careful evaluation of your breast tissue, abdomen and genitals.

Initial tests to determine the cause of your gynecomastia may include:

- Blood tests
- Mammograms

You may need further testing depending on your initial test results, including:

- Computerized tomography (CT) scans
- Magnetic resonance imaging (MRI) scans
- Testicular ultrasounds
- Tissue biopsies

**Conditions that cause similar symptoms**

Your doctor will want to be sure your breast swelling is actually gynecomastia and not another condition. Other conditions that can cause similar symptoms include:

- **Fatty breast tissue.** Some men and boys have chest fat that resembles gynecomastia. This is called false gynecomastia (pseudogynecomastia), and it isn't the same as gynecomastia.
- **Breast cancer.** This is uncommon in men, but can occur. Enlargement of one breast or the presence of a firm nodule raises the concern for male breast cancer.
- **A breast abscess (mastitis).** This is an infection of the breast tissue.

Most cases of gynecomastia regress over time without treatment. However, if gynecomastia is caused by an underlying condition, such as hypogonadism, malnutrition or cirrhosis, that condition may need treatment. If you're taking medications that can cause gynecomastia, your doctor may recommend stopping them or substituting another medication.

In adolescents with no apparent cause of gynecomastia, the doctor may recommend periodic re-evaluations every three to six months to see if the condition improves on its own. Gynecomastia often goes away without treatment in less than two years. However, treatment may be necessary if gynecomastia doesn't improve on its own or if it causes significant pain, tenderness or embarrassment.

**Medications**
Medications used to treat breast cancer and other conditions, such as tamoxifen (Soltamox) and raloxifene (Evista), may be helpful for some men with gynecomastia. Although these medications are approved by the Food and Drug Administration, they have not been approved specifically for this use.

**Surgery to remove excess breast tissue**

If you still have significant bothersome breast enlargement despite initial treatment or observation, your doctor may advise surgery. Two gynecomastia surgery options are:

- **Liposuction.** This surgery removes breast fat, but not the breast gland tissue itself.
- **Mastectomy.** This type of surgery removes the breast gland tissue. The surgery is often done endoscopically, meaning only small incisions are used. This less invasive type of surgery involves less recovery time.

For a man, enlarged breasts can be stressful and embarrassing. Gynecomastia can be difficult to hide and a challenge to romantic relationships. During puberty, gynecomastia can make boys a target for teasing from peers. It can make activities such as swimming or changing in the locker room traumatic.

Whatever your age, you may feel like your body has betrayed you and you may feel unhappy with yourself. These feelings are normal, but to help you cope you can:

- **Get counseling.** Talk therapy can help you avoid anxiety and depression caused by gynecomastia. It can also help you communicate with your partner or family members so that they understand what you're going through.
- **Reach out to your family and friends.** You may feel embarrassed to talk about gynecomastia with the people you care about. But explaining your situation and asking for help will likely strengthen your relationships and reduce stress.
- **Connect with others who have gynecomastia.** Talking with men who have had a similar experience can help you cope. Websites such as Gynecomastia.org provide a forum for connecting with others who have the condition.

There are a few factors you can control that may reduce the risk of gynecomastia:

- **Don't use illegal drugs.** Examples include steroids and androgens, amphetamines, heroin, and marijuana.
- **Avoid alcohol.** Don't drink alcohol, or drink in moderation.
• **Review your medications.** If you're taking medication known to cause gynecomastia, ask your doctor if there are other choices.

**References**


Jan. 02, 2014

Original article: [http://www.mayoclinic.org/diseases-conditions/gynecomastia/basics/definition/con-20028710](http://www.mayoclinic.org/diseases-conditions/gynecomastia/basics/definition/con-20028710)