

Gynaecomastia

What is gynaecomastia or 'man boobs'?

Gynaecomastia (often referred to as 'man boobs') is the enlargement of male breast gland tissue. It is benign, meaning that it is not cancerous.

Gynaecomastia can develop in males of any age or weight, but often arises around puberty as breast development is affected by hormonal changes.

An accumulation of excess fat, and not breast gland tissue, is sometimes seen in obese men – this is not true gynaecomastia and is sometimes called pseudogynaecomastia.

Gynaecomastia can appear as a rubbery or firm mass that starts from underneath the nipple and then spreads outwards over the breast area. It usually affects both breasts but often in different amounts so there is asymmetry, or it may only affect one breast. Sometimes the growing tissue can be painful or tender, and if this occurs then you should be examined by a doctor. Gynaecomastia can also result in significant psychological and social stress, leading to anxiety and embarrassment.

How common is gynaecomastia?

Gynaecomastia is very common. During puberty more than half of all healthy males will develop gynaecomastia, with the enlarged breast tissue usually reducing in size with time. During older age about one-third of men will develop gynaecomastia.

What causes gynaecomastia?

There are many possible causes of gynaecomastia, and these can be grouped into physiological (the body's normal functioning), pharmacological (medication or drug related), and pathological (disease) causes.

Physiological gynaecomastia is caused by the normal hormone changes that occur during different stages of life. These changes result in an increase in the ratio of normal oestrogen hormones (present in all healthy males) to testosterone hormones, with oestrogen encouraging breast tissue growth.



Photo courtesy of Mr G Southwick Melbourne Institute of Plastic Surgery

- During infancy male babies can develop physiological gynaecomastia due to the transfer of oestrogen from the mother. This transfer stops after birth, so the gynaecomastia is temporary.
- During puberty the maturing testes produce more oestrogen than testosterone, which can result in gynaecomastia. Usually this type of gynaecomastia goes away spontaneously, but sometimes it can persist longer term.
- During older age there is a gradual reduction in testosterone production, resulting in an increased oestrogen to testosterone ratio, which can encourage the growth of breast tissue.

Pharmacological gynaecomastia is caused by medications or drugs that affect the ratio of oestrogen and testosterone through multiple different ways. Some of these medications include anabolic steroids, heart medications, or drugs of abuse such as marijuana or alcohol. While stopping the offending drug will usually result in the gynaecomastia going away, a doctor should always be consulted before stopping any medicines.

Pathological gynaecomastia is caused by multiple different diseases or conditions that affect the ratio of oestrogen to testosterone. These conditions are quite rare but may include genetic problems, chronic diseases (especially kidney and liver disease), and tumours in the testis or adrenal gland.

What genetic problems cause gynaecomastia?

Genetic causes of gynaecomastia are overall quite rare, however the commonest genetic cause is a condition known as Klinefelter syndrome, which affects about one in every 550 males. Affected males have an extra X chromosome, which results in the testicles not producing enough testosterone for the male body to develop and function normally. Treatment with testosterone brings the abnormal oestrogen to testosterone ratio back to normal. Testosterone will prevent gynaecomastia from occurring, and if already present then it may reduce it. Sometimes plastic surgery may be required to remove any residual excessive breast tissue.

How can medicines or drugs cause gynaecomastia?

Many different medications or drugs can lead to gynaecomastia by causing an abnormal oestrogen to testosterone ratio. These can include medications for depression, heart problems, high blood pressure, and stomach ulcers. Some antibiotics, chemotherapy drugs, and prostate cancer drugs can also result in gynaecomastia. Drugs of abuse (e.g. marijuana, opioids, excessive alcohol) may also cause excessive breast growth.

How is gynaecomastia diagnosed?

Gynaecomastia is diagnosed by a doctor taking your history (asking questions)

and performing a physical examination. The history may involve your doctor asking questions about your breast tissue development, your medical and drug history, and what health conditions run in your family. The examination may include evaluating your breast tissue, abdomen, and genitalia. Breasts affected by gynaecomastia usually have a rubbery or firm mound of tissue beneath or around the nipple.

Determining the cause of gynaecomastia may sometimes require investigations such as blood tests, imaging, and tissue samples. Blood tests may include oestrogen and testosterone hormone levels, testicular cancer markers and tests for abnormal kidney or liver function. Imaging can include testicular ultrasound to look for testicular lumps, or breast imaging (e.g. mammogram, ultrasound, or MRI) to look for breast lumps. If abnormal lumps in the testicles or breasts are found then a tissue sample (biopsy) may be recommended.

Is there a link between gynaecomastia and breast cancer?

Breast cancer is very uncommon in men, with around 100 Australian men diagnosed each year (less than 1% of all breast cancers). Breast cancer presents differently to gynaecomastia, usually being hard and irregular (rather than soft), usually in one breast (rather than usually in both breasts), and may also have nipple deformity or discharge, or lumps in the armpit.

There is a link between breast cancer and gynaecomastia in that both are associated with high oestrogen levels. Overall, men with gynaecomastia have around twice the chance of getting breast cancer, however it is still very uncommon. Men with Klinefelter syndrome have an even higher risk of breast cancer than other men, however it is still rare.

What are the psychological effects of gynaecomastia?

Gynaecomastia can be difficult to deal with as it often causes significant psychological and social problems. Males may feel embarrassed or anxious about their chest, and may avoid activities that involve taking their shirt off, or avoid wearing certain clothes that accentuate it.

Increasing the awareness of gynaecomastia is important as it is a common and normal part of puberty and aging, and increasing awareness will help support the many males who experience psychological or emotional distress due to it.

How is gynaecomastia treated?

Gynaecomastia can be treated by conservative measures (observation), medications, or surgery. Which treatment is appropriate depends on the underlying cause of the gynaecomastia, whether the changes are expected to resolve, and what cosmetic concerns are present.

Conservative treatment includes observation and careful watching. This is appropriate for many patients as most gynaecomastia goes away with time. If a specific cause of the gynaecomastia is identified and treated in the early stages phase of development, then the breast enlargement may be stopped and reversed.

Medications may be used to treat gynaecomastia in males who have no underlying hormonal problems, although the success rates are variable. These medications aim to return the oestrogen to testosterone ratio to normal, and can include medications that suppress oestrogen such as Tamoxifen (also used in the treatment of breast cancer).

Surgery may be used in cases of long-standing gynaecomastia or when medications have not been effective. The excess breast tissue is removed either by excising it through an incision below

the nipple, or by liposuction of the area, with both methods often used together. Compression garments are commonly used after the operation to help stop any fluid collection and reduce any stretched 'excess' skin. Severely stretched skin may also need to be removed.

 For more information visit www.andrologyaustralia.org, call 1300 303 878, or speak to your doctor.

Expert reviewers

A/Professor Carolyn Allan
MBBS (Hons) PhD DRCOG (UK) FRACP
Andrology Australia

Mr Graeme Southwick OAM
MBBS(Hons), FRACS FACS
Melbourne Institute of Plastic
Surgery & Hudson Institute of
Medical Research

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c/o School of Public Health and Preventive Medicine, Monash University
PO Box 315, Prahran
Victoria 3181, Australia

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