

Gynaecomastia

What is gynaecomastia or 'man boobs'?

Gynaecomastia (often referred to as 'man boobs') is the enlargement of male breast tissue. Gynaecomastia appears as a rubbery or firm mass that starts from underneath the nipple and then spreads outwards over the breast area. It is not cancerous.

The tissue is enlargement of glandular tissue, not fat tissue. Enlargement is found in both breasts in about half of cases, while in the other cases it only affects one breast.

Gynaecomastia can happen in males of any age or weight. Obese men can look like they have man boobs as they have fat tissue all over the body including the breasts; however, this is not true gynaecomastia.

The growth of breast tissue can be painful or tender. This should always be checked by a doctor. Gynaecomastia can appear as a small lump that becomes tender as the mass becomes larger.

It is common in adolescent boys as breast development is affected by hormonal changes at puberty. This can cause psychological stress.

How common is gynaecomastia?

Gynaecomastia is very common in boys going through puberty, happening in more than half of all normal adolescent males, and usually goes away over time. In older men, enlargement of the breast tissue happens in about one-third of men, who often have excess surrounding fatty tissue as well.

What causes gynaecomastia?

Gynaecomastia is commonly seen during infancy, puberty and older age. All males have the male sex hormone testosterone as well as low levels of the female hormone oestrogen, which controls breast tissue growth. When the ratio of testosterone to oestrogen changes (that is, there is an imbalance in the levels of these two hormones with relatively higher amounts of oestrogen), breast tissue can grow. Some men with gynaecomastia have higher than normal oestrogen levels.



Photo courtesy of Mr G Southwick Melbourne Institute of Plastic Surgery

Many newborn male babies have enlarged breast tissue because of the transfer of oestrogen from the mother during pregnancy. The oestrogen goes down after birth so this type of gynaecomastia is temporary.

During mid to late puberty more oestrogen than testosterone is made by the maturing testis until the time when the testes start to make testosterone at adult levels. Gynaecomastia starting during puberty often goes away, but in less than one in 20 adolescent boys it continues into adulthood.

As men get older there is often a gradual decrease in testosterone levels (and therefore the ratio of oestrogen relative to testosterone goes up) and this can lead to gynaecomastia.

Gynaecomastia can also be caused by genetic problems, chronic diseases (especially kidney and liver disease) or some medicines. Men who take anabolic steroids for sporting performance or body building often develop gynaecomastia. In rare cases, gynaecomastia can be caused by a tumour in the testis or adrenal glands that makes large amounts of oestrogen.

What genetic problems cause gynaecomastia?

Klinefelter's syndrome (KS), a chromosomal problem that affects about one in every 650 males, is the main genetic cause of gynaecomastia. Men with KS have an extra X chromosome; the normal male chromosome arrangement is 46XY, but for men with Klinefelter's syndrome it is 47XXY. Men with KS do not make enough testosterone for the body to function normally. Male

physical and reproductive development is affected and men with KS often develop gynaecomastia.

Men with KS have an imbalance in their oestrogen to testosterone ratio because they have low testosterone levels. Testosterone therapy brings the ratio back to normal and helps prevent (when started at puberty) or improve the gynaecomastia, but it may not completely fix it. In some cases plastic surgery is needed.

How can medicines or drugs cause gynaecomastia?

Medicines that can cause breast growth in men include certain antidepressants, medicines used for high blood pressure and tuberculosis, and some chemotherapy agents. Antibiotics and cardiovascular medicines and a specific anti-ulcer medicine (cimetidine) can sometimes change the balance of hormones in the body.

Drug abuse, especially the use of anabolic steroids, but also marijuana, opioids and excessive alcohol intake (that has caused chronic liver disease) can cause gynaecomastia.

Medicines used in the treatment of prostate cancer that block the effects of testosterone (androgen deprivation therapy) can lead to gynaecomastia.

In rare cases, the partners of women using topical oestrogen cream or gel for hormone replacement therapy may absorb enough oestrogen through regular, prolonged contact to cause gynaecomastia.

How is gynaecomastia diagnosed?

A doctor can examine the enlarged breast tissue to check whether it is gynaecomastia or excess fat. In true gynaecomastia, a rubbery or firm mound of tissue the same shape as the nipple can be felt. If breast enlargement is due to fatty tissue, there is no round shaped disc of tissue.

Once a diagnosis is made, it is important for the doctor to review all medicines the man may be taking that could be linked with his gynaecomastia.

No further testing may be needed if the underlying cause is clear and/or no action is required. For example, in a pubertal boy with a family history of gynaecomastia or in an older man whose breast enlargement has been there for a long time.

However, if an otherwise healthy man has a short history of quickly enlarging and/or tender breast swelling he will need a blood test for sex hormones and blood markers of testicular cancer, along with a testicular ultrasound; however, testicular cancer is very uncommon and not likely to be the cause.

If there are irregularities or lumps in the breast, mammography, breast ultrasound or MRI may be helpful. If there are any suspicious findings a biopsy can exclude the rare but serious diagnosis of breast cancer.

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). It usually has different characteristics to gynaecomastia. The breast tissue in gynaecomastia is soft, elastic, or firm but not hard; it happens underneath the nipple; and in half the cases affects both breasts. Breast cancer usually appears as a hard or firm lump, commonly located outside the nipple but sometimes underneath the nipple, and usually only in one breast. Some men with breast cancer may also have skin dimpling, retracted nipples, or even a nipple discharge.

Men with gynaecomastia have around twice the chance of getting breast cancer compared to other men, as breast cancer is linked with conditions that increase the amount of oestrogen in the body. Men with KS have a higher risk of breast cancer than other men, but it is still rare.

What are the psychological effects of gynaecomastia?

Gynaecomastia is usually not life threatening but it can affect a man's quality of life. For example, men may avoid swimming or taking their shirts off to avoid embarrassment.

Few men openly discuss their concerns with their local doctor or family and can become distressed about body image. Gynaecomastia can be particularly embarrassing for adolescent boys.

Raising awareness of gynaecomastia may lead to better diagnosis and reassure boys and men they are not alone in having this condition. People may better understand it as a part of the normal processes of puberty and ageing, and there may be further research into treatments.

How is gynaecomastia treated?

Treatment of gynaecomastia depends on the underlying cause, whether the condition is expected to continue, and cosmetic concerns. Watching for further development is usually the best option as in most cases gynaecomastia goes away over time.

If a cause is found and treated during the first phase of growth, the breast enlargement may be stopped and reversed. If gynaecomastia has been caused by medicine or drug use, the enlarged breast tissue will usually go away within a month of stopping the medicine.

Medicine treatments

Several medicines have been tested to treat gynaecomastia in men who have no underlying hormonal problem, although the success rates are different in each study. The use of medicines to block the action of oestrogen, increase testosterone and alter the oestrogen-testosterone balance can help to reduce gynaecomastia in some men.

Tamoxifen, a medicine used in breast cancer, is not approved to treat gynaecomastia but may help in some men. However, in others there may be no benefit and the side-effects of tamoxifen include possible deep vein thrombosis (blood clot).

Surgery

Surgery can be useful for men with long-standing gynaecomastia or when medicines have not been successful. Suction liposculpture works well to remove excess fatty tissue, especially in older men with gynaecomastia, and some of the rubbery solid breast tissue found behind the nipple can be removed.

In younger men, removing tissue through a small cut at the base of the areolar (the area around the nipple) is often needed. Although much of the stretched skin from gynaecomastia will adjust with time after surgery, especially if pressure garments are used, sometimes the excess skin needs 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

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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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