

Gynaecomastia

This booklet tells you about gynaecomastia. It explains what gynaecomastia is, what causes it, how it's diagnosed and what will happen if it needs to be treated or followed up.

What is gynaecomastia?

Gynaecomastia is the enlargement of male breast tissue. It's a common, benign (not cancer) condition that mainly affects teenage boys and older men, but it can affect men at any age.

Even though gynaecomastia is very common, it's not talked about much because some people, particularly boys, find it embarrassing.

Gynaecomastia can often make teenage boys feel very anxious and worry about what it means for them. Two out of three teenage boys develop some degree of gynaecomastia, and 90% of cases get better by themselves.

The symptoms of gynaecomastia can vary from a small, firm enlargement of breast tissue just behind the nipple to a larger, more female-looking breast. Gynaecomastia can affect one or both breasts. The area can be tender to touch or painful.

True gynaecomastia (caused by an enlargement of breast tissue) is different from pseudo-gynaecomastia, which is an increase in fatty tissue. However, gynaecomastia can also be a mixture of both.

Breast development in boys

Breast tissue develops while in the womb. During this time, the breasts form small branching tubes (ducts) behind the nipple. Until boys reach their teenage years and puberty, their breast tissue is the same as that of girls. However, when they reach puberty, increased hormone levels affect the further development of the breast tissue.

In girls, the hormone oestrogen causes the breasts to grow and milk-producing glands (lobules) to form at the end of the ducts, so a woman's breasts are able to carry milk to the nipple.

Boys also have higher levels of oestrogen during puberty, but by the end of their teenage years they usually have much higher levels of the hormone testosterone. This stops the effect of oestrogen on breast tissue, and the breast usually flattens out.

What causes gynaecomastia?

Puberty

Puberty in boys usually starts once they reach their teenage years. However, some boys may notice changes when they're as young as 10. When puberty starts there's a rise in the levels of the hormones oestrogen and testosterone. Oestrogen stimulates the breast to grow and testosterone stops breast growth.

As well as the other changes associated with puberty, boys may notice that their breasts are tender or are growing. This is because there'll be times during puberty when there's more oestrogen than testosterone in the body, which causes breast tissue to change. If oestrogen levels continue to be higher than testosterone levels, the ducts and lobules will grow and the breast(s) will become larger and more noticeable.

By around the age of 15, testosterone levels start to settle at a constant, higher level than oestrogen levels. This stops the oestrogen from having any further effect on the breast tissue. By the time a man is around 19, his breasts have usually begun to shrink and flatten out.

Sometimes it takes a little time before the breast(s) flattens out. If you're finding this embarrassing or you're worried, see your GP (local doctor). They will assess you and refer you to a breast clinic if necessary (see the 'Treatment and follow-up' section).

Ageing

As a person gets older, they tend to have more body fat, which produces oestrogen. In addition, as men get older they also produce less testosterone. The combination of an increase in oestrogen levels and reduced testosterone levels can cause the breasts to become larger.

Weight gain in later life may be particularly noticeable in the breast area as well, resulting in larger breasts. This is known as pseudo-gynaecomastia. Many men accept this change as another part of the ageing process. However, if you're particularly concerned, speak to your GP who may refer you to a breast clinic.

Other causes

Other causes of gynaecomastia are ill health, some prescription and illegal drugs, herbal products, diet and drinking too much alcohol.

Sometimes it's not possible to tell why a man develops gynaecomastia. However, the treatment options to correct it can be the same as when the cause is known.

Ill health

There are many medical conditions that can be associated with gynaecomastia, although in most cases this is unlikely to be the only symptom. It's important you see your GP who may refer you to a breast clinic where you can be assessed fully to confirm the reason for your gynaecomastia.

Drugs and medication

Some drugs (both prescription and illegal) can cause gynaecomastia. They may either contain oestrogen, which increases the level of the hormone circulating in the body, or have an oestrogen-like effect. This is the case with a drug such as cannabis. Some drugs block testosterone production altogether, reducing the level of circulating testosterone.

Several types of prescribed medication can change the hormone balance in the body. Medications taken for high blood pressure or heart conditions, some psychiatric conditions, stomach ulcers, some cancer therapies and some antibiotics, as well as drugs taken to build up muscles (anabolic steroids), can all be a cause of gynaecomastia.

Herbal products

Some herbal supplements and certain cosmetics contain oestrogen. This may increase the level of the hormone circulating in the body or have an oestrogen-like effect on both children and adults. Once you stop using them, the effects stop and eventually the breast tissue will settle down.

Diet and weight

The more fat cells a person has in their body, the more oestrogen they produce. This in turn can make breast tissue grow. A well-balanced diet and exercise are important in maintaining a healthy weight.

Alcohol

Drinking too much alcohol has been shown to affect the liver in many ways and cause a number of conditions. Large quantities of alcohol stimulate the liver, creating a hormone imbalance. Circulating testosterone is reduced, but oestrogen levels rise (as the liver stops breaking down the circulating oestrogen). This means that breast tissue can grow.

How is gynaecomastia diagnosed?

Your GP may be able to say whether you have gynaecomastia, but they may also refer you to a breast clinic where you'll be seen by a specialist doctor or nurse.

At the clinic you'll have a breast examination. In some cases, you may need to have other tests so that a definite diagnosis can be made. These can include:

- a mammogram (a breast x-ray) and/or ultrasound scan (uses high frequency sound waves to produce an image)
- a fine needle aspiration (FNA) or core biopsy of breast tissue. An FNA uses a fine needle and syringe to take a sample of breast cells for analysis under a microscope. A core biopsy uses a hollow needle to take a small sample of breast tissue for analysis under a microscope.

Because gynaecomastia can be a symptom of other conditions, such as hyperthyroidism (overactive thyroid gland), your specialist may also want to examine your neck, abdomen (belly) and testicles. They may also ask you to have further tests, for example a blood test.

Call our free Helpline if you'd like more information about any tests you may be having, or see our booklet **Your breast clinic appointment**.

Treatment and follow-up

In most cases you won't need any treatment or follow-up if you have gynaecomastia. However, it's important to go back to your GP if the breast(s) grows larger or becomes painful, or if you have any new symptoms.

For some people, removing the cause of the gynaecomastia (such as changing medication, reducing excess body fat or reducing alcohol intake) is all that's needed to shrink the extra breast tissue. Other people may need to have medical treatments or surgery.

Medical treatments

Occasionally your specialist may suggest you're treated with hormone drugs. The hormone drugs used to treat gynaecomastia are danazol, tamoxifen and, very occasionally, aromatase inhibitors. Although these treatments are not licensed for use in gynaecomastia, they have been shown to be useful in treating it. Your specialist will want you to have regular follow-up appointments if you're prescribed any of these.

There are no guidelines on which treatment should be considered first. However, there's usually a preference to use danazol or tamoxifen. While you're taking these drugs you may experience side effects, so they should only be taken following a thorough discussion of their benefits and risks.

Danzol

Danzol is licensed to treat breast pain. It works by reducing oestrogen produced in the testicles and so reduces the size of the breast(s). It's given as a tablet and your specialist will advise you on what dose to take and for how long. It can have side effects including weight gain, acne and changes to the voice. You may experience some of these side effects or none at all.

Tamoxifen

Tamoxifen is more commonly used as a treatment for breast cancer. Recent studies have shown that it's also effective in treating painful gynaecomastia and reducing the size of the breast(s) in men. It's given as a tablet and your specialist will advise you on what dose to take and

for how long. It can have several side effects including nausea and an upset stomach. You may find it useful to read our **Tamoxifen** booklet for more general information about its side effects.

Aromatase inhibitors

Aromatase inhibitors are also used as a treatment for breast cancer. Some research suggests they may be of benefit in treating gynaecomastia, but more research is needed. Aromatase inhibitors are given as a tablet and your specialist will advise you on what dose to take and for how long. The side effects can include joint pain and reduced bone strength, but whether these effects happen when the drugs are used for just a short time is yet to be researched or determined.

Once you stop taking any of these drugs your gynaecomastia may return. If this happens, you may want to go back to your specialist.

Surgery

Generally surgery is only recommended if your gynaecomastia hasn't improved with lifestyle changes and/or medical treatments, or if you've had it for a long time and it's affecting your quality of life.

Your specialist should discuss any risks of surgery with you before you decide whether to have an operation.

Surgery for gynaecomastia isn't straightforward. The type of operation will depend on the size of your gynaecomastia and the amount of excess skin. The aim is to restore a more normal male chest size, and sometimes this involves more than one operation.

The various surgical options can be carried out alone or in combination. Your specialist will assess you very carefully before deciding on the most appropriate techniques for you.

Liposuction (a surgical procedure in which fat is removed from the affected area) is one of the most common procedures. It can be a treatment by itself or at the same time as a breast reduction operation (known as a reduction mammoplasty). A breast reduction can also be done without liposuction.

Because all the above procedures leave some breast tissue, your gynaecomastia could still return.

What this means for you

Gynaecomastia can be a distressing, embarrassing and isolating experience for anyone affected by it.

Boys going through puberty and coping with other physical changes can find it particularly hard to discuss their growing or painful breasts with anyone. As a result, teenage boys often don't realise how common the condition is. Older men may worry that the changes to their breasts are a sign of cancer.

You may feel anxious about having gynaecomastia. Even though you may feel relieved that it's a benign condition, you may still worry about breast cancer. Having gynaecomastia does not increase your risk of developing breast cancer. However, it's still important to be breast aware and go back to your GP if you notice any other changes regardless of how soon these occur after your diagnosis of gynaecomastia.

You can find out more about being breast aware in our booklet **Your breasts your health: throughout your life.**



Got a question about breast health?

As well as supporting people who have breast cancer we highlight the importance of early detection and can answer your questions about breast health and breast problems.

Ask us

You can call our free Helpline if you have a breast health or breast awareness query. Calls are answered by specialist nurses and trained staff. Or you can Ask the Nurse by email instead via our website.

Free Helpline **0808 800 6000** (Text Relay 18001)

Monday–Friday 9am–5pm

Saturday 10am–2pm

www.breastcancercare.org.uk/ATN

Expert information

Written and reviewed by healthcare professionals and reviewed by members of the public, our free booklets and other information resources cover a range of information on breast health, including leaflets on a number of benign (not cancer) breast problems.

Download or order information from our website or call the Helpline.

www.breastcancercare.org.uk

We're here for you: help us to be there for other people too

If you found this booklet helpful, please use this form to send us a donation. Our information resources and other services are only free because of support from people such as you.

We want to be there for every person facing the emotional and physical trauma of a breast cancer diagnosis. Donate today and together we can ensure that everyone affected by breast cancer has someone to turn to.

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We might occasionally want to send you more information about our services and activities

- Please tick if you're happy to receive email from us
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We won't pass on your details to any other organisation or third parties.

Please return this form to Breast Cancer Care, Freepost RRKZ-ARZY-YCKG,
5-13 Great Suffolk Street, London SE1 0NS



About this booklet

Gynaecomastia was written by Breast Cancer Care's clinical specialists, and reviewed by healthcare professionals and members of the public.



**For a full list of the sources
we used to research it:**

Phone 0345 092 0808

Email publications@breastcancercare.org.uk



You can order or download more copies from
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the breast cancer
support charity

Breast Cancer Care is the only UK-wide charity providing specialist support and tailored information for anyone affected by breast cancer.

Our clinical expertise and emotional support network help thousands of people find a way to live with, through and beyond breast cancer.

Visit www.breastcancercare.org.uk or call our free Helpline on **0808 800 6000** (Text Relay 18001).

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