

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.

Benign breast conditions information
provided by Breast Cancer Care



Breast Cancer Care doesn't just support people when they've been diagnosed with breast cancer.

We also highlight the importance of early detection and provide up-to-date, expert information on breast conditions and breast health.

If you have a question about breast health or breast cancer you can call us free on **0808 800 6000** or visit **breastcancercare.org.uk**

We hope you find this information useful. If you'd like to help ensure we're there for other people when they need us visit **breastcancercare.org.uk/donate**

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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 common, it's not talked about much because some people, particularly boys, find it embarrassing.

Gynaecomastia can often make teenage boys feel anxious and they may worry about what it means for them. Two out of three teenage boys develop some degree of gynaecomastia. However, in nine out of ten cases it will get better by itself over time.

The symptoms and size 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 an increase in fatty tissue (known as pseudo-gynaecomastia). 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 produce milk and carry it 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 breasts will grow and become larger and more noticeable.

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

However, it can take some time before the breasts flatten out. If you're finding this embarrassing or you're worried, see your GP. They will usually be able to confirm if you have gynaecomastia. Occasionally you may be referred to a breast clinic for further assessment (see 'Treatment and follow-up').

Ageing

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

Weight gain in later life may be particularly noticeable in the breast area, also resulting in larger breasts. You might hear this called pseudo-gynaecomastia. Many men accept this change as another part of the ageing process.

If you're 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, but not knowing the cause won't affect the treatment options.

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 to see your GP who will assess all your symptoms. They may refer you to a breast clinic to confirm the reason for your gynaecomastia.

Drugs and medicines

Some drugs (both illegal and prescription) can cause gynaecomastia. This may be because they contain oestrogen, which increases the level of the hormone in the body. Or, more commonly, the drug may have an oestrogen-like effect. Some drugs block testosterone production altogether, reducing the level of testosterone in the body.

For example, cannabis is a drug thought to cause a hormone imbalance and therefore may be a reason for gynaecomastia developing.

Several other types of medicines can change the hormone balance in the body. Those 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 skincare products contain oestrogen. This may increase the level of the hormone circulating in the body or have an oestrogen-like effect. Once you stop using them, the effects will stop and eventually the breast tissue will settle down.

Being overweight

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 and can create 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 will usually be able to say whether you have gynaecomastia, but they may 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, more likely, a core biopsy of breast tissue

An FNA uses a fine needle and syringe to take a sample of cells to be looked at under a microscope. A core biopsy uses a hollow needle to take a small sample of breast tissue also looked at under a microscope.

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

Call our free Helpline on **0808 800 6000** if you'd like more information about any tests you may be having, or you can read 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 medicines, reducing excess body fat or reducing alcohol intake) is all that's needed to shrink the enlarged breast tissue. Occasionally people may need to have drug treatments or, very rarely, surgery.

Drug treatments

Occasionally your specialist may suggest you're treated with drugs. The drugs used to treat gynaecomastia are:

- tamoxifen
- danazol
- aromatase inhibitors (very occasionally)

Although not all of these treatments are 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, tamoxifen is usually preferred. While you're taking any of the drugs listed you may experience side effects, so they should only be taken following a thorough discussion of their benefits and risks.

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

Tamoxifen

Tamoxifen is usually given as a treatment for breast cancer. However, studies have shown that it's also effective in treating painful gynaecomastia by lowering the amount of oestrogen in the body and reducing the size of the breast(s) in men. It's given as a tablet and your specialist will advise you what dose to take and for how long. It can have several side effects including nausea and loss of libido (sex drive).

You may find it useful to read our **Tamoxifen** booklet for more general information about its side effects.

Danazol

Danazol is licensed to treat painful and tender gynaecomastia. It works by reducing oestrogen produced in the testicles, which reduces the size of the breast(s) and improves symptoms. It's given as a tablet and your specialist will tell you what dose to take and for how long. It can have side effects including weight gain, acne and changes to the voice.

Aromatase inhibitors

Aromatase inhibitors are drugs 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 tell you what dose to take and for how long. Side effects can include joint pain and reduced bone strength, though whether you get these may depend on how long you take it for.

Surgery

Generally, surgery will only be recommended in exceptional circumstances. It may be considered if your gynaecomastia hasn't improved with lifestyle changes or drug treatments, or if you've had it for a long time and it's affecting your quality of life.

Your specialist will 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 used at the same time as a breast reduction operation (sometimes known as a reduction mammoplasty). A breast reduction can also be done without liposuction.

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

How you may feel

Gynaecomastia can be distressing, embarrassing and isolating 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. Having gynaecomastia doesn't increase your risk of developing breast cancer, but it's still important to be breast aware. 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 **Know your breasts: a guide to breast awareness and screening**. Although this booklet is mainly aimed at women, the signs and symptoms to look out for are very similar.

Further support

If you have any questions about gynaecomastia or just want to talk things through, you can call Breast Cancer Care's Helpline on **0808 800 6000** and speak with one of our team.

About this booklet

Gynaecomastia was written by Breast Cancer Care's clinical specialists, and reviewed by healthcare professionals and people affected by breast problems.



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

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