

Gynaecomastia



This leaflet 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 overgrowth of male breast tissue. It is a benign (non-cancerous) condition that mostly affects teenage boys and older men, although it can affect a man at any time in his life. Gynaecomastia is very common but is not talked about much because some might find it embarrassing.

The symptoms of gynaecomastia can vary from a small overgrowth of breast tissue around the nipple area (called a breast bud) to a larger more female-looking breast. This can affect one or both breasts. The area can be tender to touch or sometimes painful.

True gynaecomastia, caused by a growth of breast tissue, is different from pseudo-gynaecomastia, which is formed by fatty tissue. However, gynaecomastia can also be a mixture of both.

Normal 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. On reaching puberty, however, 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.

In boys, although levels of both the hormones oestrogen and testosterone increase, much higher testosterone levels will eventually stop the oestrogen from having any further effect on the breast tissue. The lobules are then unable to grow, the small number of ducts stay as they were 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 is a rise in the levels of the hormones oestrogen and testosterone. As well as the other changes associated with puberty, boys may notice that their breasts are tender to touch and/or are growing.

This is because at this time boys have varying levels of testosterone, and when these levels are very low the higher level of oestrogen circulating will affect the breast tissue. Further ducts will grow and as a result the breast or breasts become much larger and more noticeable.

By around the age of 15, testosterone levels start to settle and remain at a constant high level. This stops the oestrogen from having any further effect on the breast tissue. By the time a young man reaches around 19 his breast or breasts have usually begun to shrink down and flatten out. It has been reported that two out of three teenagers develop a degree of gynaecomastia with 90 per cent of cases resolving by themselves.

Sometimes it may take a little time before the breast(s) flattens out. If you're finding this particularly embarrassing then see your GP (local doctor), who will be able to refer you to a breast clinic (see the 'Treatment and follow up' section on page 12).

Ageing

As a person grows older they tend to have more body fat, which produces more oestrogen. As men get older they also produce less testosterone. So the combination of an increase in oestrogen levels and reduced testosterone levels once again has an effect on the breast tissue, causing the breasts to become larger. (The increase in body fat in later life may be particularly noticeable in the breast areas as well giving rise to larger breasts. This is known as pseudo-gynaecomastia.) Many men see 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 recreational drugs, diet and the overuse of alcohol.

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 to be referred to a breast clinic. Here 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 marijuana. Some drugs block testosterone production altogether, therefore reducing the level of circulating testosterone.

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

Diet

It's known that 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 has been shown to be important in maintaining general health.

Alcohol

Drinking alcohol to excess has been shown to affect the liver in many ways and cause a number of conditions. Alcohol taken in large quantities stimulates 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.

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

How is gynaecomastia diagnosed?

Your GP may 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 a breast surgeon. At the clinic you'll have some tests so that a definite diagnosis can be made.

You will probably have a breast examination and a mammogram (breast x-ray) and/or ultrasound scan (which creates a picture of the breast using high-frequency sound waves). Occasionally a fine needle aspiration (FNA) or core biopsy is recommended. An FNA is where a fine needle and syringe is used to take a sample of cells. A core biopsy uses a larger needle to remove a sample of breast tissue rather than cells and is performed under local anaesthetic. You won't always have these tests if the examination and x-ray/ultrasound clearly show gynaecomastia.

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

Please call our free helpline if you'd like more information about any tests you may be having, or see our **Referral to a breast clinic** leaflet.

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, just removing the cause of the gynaecomastia (such as changing medication or reducing alcohol intake) is all that's needed to reduce the extra breast tissue. Other people may need to have medical treatment and/or surgery.

Medical treatments

Occasionally your specialist may say you need to be treated with hormonal drugs. The drugs used to treat gynaecomastia are danazol, tamoxifen and clomiphene. Although these hormonal treatments are not licensed for use with gynaecomastia, they have shown to be useful in treating it. Your specialist will want to follow you up regularly while you are on these drugs.

There are no guidelines on which treatment should be considered first. While you're taking these drugs you may experience side effects so they're only suitable for use following a thorough discussion of their benefits and risks.

Danazol reduces 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 is more commonly known 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. The side effects can include nausea and stomach upset. Increased blood clots in the legs are another known side effect, although there have been no reports of this when used to treat gynaecomastia.

Clomiphene is another hormonal drug. Again, 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, such as nausea and visual problems, but these are rare.

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 not recommended as a treatment for gynaecomastia. However, if you've had your gynaecomastia for a long time and/or it hasn't improved with other treatments, your specialist may discuss an operation to reduce the amount of breast tissue you have.

The type of operation will depend on the size of your gynaecomastia. The aim of all the different procedures is to restore a more normal male chest size.

Liposuction (a surgical procedure in which fat is removed from the affected area) is one of the most common procedures. It's done when the excess breast tissue is

mainly fat. It can be a treatment by itself, or happen before a breast reduction (reduction mammoplasty) operation. A breast reduction can also be done without liposuction.

The other surgical procedure your specialist may consider is removal of the breast tissue from under the nipple area (a subcutaneous mastectomy). Even though this is called a mastectomy, a small amount of breast tissue is usually left behind the nipple and areola (the darker area around the nipple) so as to keep a more normal male breast shape.

Because all these operations leave some breast tissue, your gynaecomastia could still return. Surgery is only considered in rare circumstances to improve your quality of life, and you would need to discuss all its implications before making a decision about whether to have an operation.

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 and/or painful breast(s) 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 in your breasts.

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

If you'd like any further information or support, call our free helpline on **0808 800 6000** (Text Relay **18001**). You may also find it helpful to chat to someone who's had a similar experience to you by visiting our online benign breast conditions forum at www.breastcancercare.org.uk

For more information see our booklets on:
Referral to a breast clinic BCC70
Your breasts your health: throughout your life BCC2

To order, or download a copy, please visit www.breastcancercare.org.uk/publications

This factsheet can be downloaded from our website, **www.breastcancercare.org.uk** It is also available in Braille on request by phoning **0845 092 0808**.

This leaflet has been produced by Breast Cancer Care's clinical specialists and reviewed by healthcare professionals and members of the public.

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Breast Cancer Care is here for anyone affected by breast cancer. We bring people together, provide information and support, and campaign for improved standards of care. We use our understanding of people's experience of breast cancer and our clinical expertise in everything we do.

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

Interpreters are available in any language. Calls may be monitored for training purposes. Confidentiality is maintained between callers and Breast Cancer Care.

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