

## **INFORMATION SHEET**

### **GYNAECOMASTIA**

#### **DEFINITION**

Gynaecomastia means enlargement of the breasts in the male.

#### **CAUSES**

Breast tissue is basically the same in men and women. It is a tissue whose growth is stimulated by Oestrogens or substances which have Oestrogen-like effects. Certain hormones in puberty and the Contraceptive Pill, pregnancy itself and body-building drugs (anabolic steroids) can all cause the breast tissue to grow.

The male breast often swells and becomes tender during puberty. (Puberty is the time when there is a hormone surge in the young boy between the age of 11 and 14, which is responsible for the changes to manhood). Breast swelling at the time of puberty is usually short-lived and lasts for only a few months. The breasts then usually flatten off again.

Some boys develop swollen breasts if they are overweight even before puberty. This should correct itself if the boy can diet and lose weight successfully. Unfortunately, weight loss in an overweight boy is often very difficult to achieve.

In some boys the breast swelling, which appears around puberty, fails to disappear and becomes an embarrassment. The boy is then teased at school and is shy of any activity which might reveal his swollen breasts. A boy whose breasts are large because he is simply overweight may continue to over-eat sometimes as a form of compensation.

In some boys one breast is normal and the other is enlarged. This is called unilateral gynaecomastia.

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The vast majority of cases of gynaecomastia in teenagers have no known cause and are so-called "idiopathic".

A very small percentage are due to an abnormal hormone balance from over activity or under activity of certain glands. It is, therefore, essential to check for this especially when both breasts are enlarged. It is very unlikely that there is any hormone problem if only one breast is enlarged. The basic tests for hormone imbalance are a careful general examination of the body by an experienced doctor and some blood tests. This is often done by a Paediatrician (children's doctor) or an Endocrinologist (a specialist in hormone diseases).

Body-builders are often tempted to take anabolic steroids to build up their bodies. It is very likely that the breasts will grow under the influence of these steroids. Unfortunately, sometimes when the person stops taking the steroids, the breast tissue may not shrink back again completely. It is also unfortunate that the swelling of the breasts may have caused the skin to stretch so much that it won't shrink back completely. The breasts then become rather floppier than they were before and in a body-builder, who has big pectoral muscles on the front of the chest wall, the breasts then may flop down over the edge of the muscle and look rather peculiar and effeminate.

In older men the breasts often enlarge in their 50's and 60's due to weight gain. Fat accumulates in the breasts and so the breasts consist of very little true breast tissue but mostly fat. This fatty breast swelling can often be treated by liposuction but successful treatment depends upon shrinkage of the skin at the same time. Unfortunately, this can't be relied on and so liposuction although making the breast smaller may in fact result in a distortion in the shape of the breast.

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Gynaecomastia in the young person who is not over-weight is usually associated with breasts which consist far more of true breast tissue than of fat. This type of gynaecomastia can seldom be treated by liposuction.

**TREATMENT OF GYNAECOMASTIA**

There are two basic methods of removing the excessive tissue from the breast. One is to make a cut through the skin and then cut out the extra tissue. The other is to try and suck out as much of the tissue as possible. True breast tissue as opposed to fat is like floppy rubber and so strong that it cannot be sucked out. Pure fat, however, will slip down a fine tube under the influence of suction very easily and so can be treated by liposuction.

X-rays aren't of much help in distinguishing between breast tissue and fat and so one can't always predict whether it will be possible to correct gynaecomastia by liposuction alone, or whether excision is going to be needed. The very firm breast of a young man usually consists of "unsuckable" breast tissue, whereas the soft, floppy breast of an older person often responds very well to liposuction. The advantage of using liposuction as opposed to cutting out the breast tissue is that it is quicker and simpler and it takes a lot less time to recover from it than the conventional surgery which cuts out the tissue.

The surgery for gynaecomastia, whichever method is used, is hardly ever hazardous and is usually successful if it is done by a surgeon with experience and the proper training. The choice between trying to correct it by liposuction or excision must be discussed with the surgeon. Liposuction results in one or two very short scars about ¼" (½cm) long usually placed well away from the breast itself.

Excision surgery is best done through a cut around the edge of the brown skin called the areola which surrounds the nipple. This leads to a scar which at first is pink to red in colour, but which eventually fades to a white line.

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It is usually possible to avoid any scar on the normal looking skin. A scar around the edge of the brown areola is usually very acceptable from a cosmetic point of view. Some less experienced surgeons make the cut away from the nipple and areola often in the groove in the fold of the breast. This tends to leave a rather unsightly and conspicuous scar which can never be improved subsequently. It is important, therefore, to make sure that the surgeon who is going to do the operation should use a peri-areolar scar.

The operation for gynaecomastia is usually given the title "Subcutaneous Mastectomy", which means removal of breast tissue from under the skin. It is usually done under a general anaesthetic because it is very difficult to numb all of both breasts just with injections of local anaesthetic. The breast tissue is removed through the cut around the edge of the areola, having separated the breast tissue from the skin over it and the muscle under it. The wound is closed with stitches (usually dissolvable ones), and a special tube drain is taken out through the skin so that any blood or fluid, which might otherwise accumulate in the empty space where the breast was, can be sucked away.

The surgeon will do his utmost to make certain that there is no bleeding before the wound is closed.

Unfortunately, one of the most common complications is bleeding after the operation has finished. If a lot of blood accumulates this is called a "haematoma" and nearly always has to be removed surgically, and so a second operation will be needed to remove this blood. Haematomas aren't usually particularly painful, unless they become enormous and start stretching the skin again. Most patients experience pain after the operation because the muscle is so bruised from the surgery. Therefore, arm movements are rather uncomfortable for the first two to three days.

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The suction drains can be expected to suck quite large quantities of fluid from the breast cavities for variable periods (anything from a few hours to a week or more). It may be necessary, therefore, for the drains to remain in place for several days. Most patients feel well enough to go home within 24 hours of the operation whether they have drains or not. If the drains are draining large quantities of fluid, this should not prevent the person from going home. They can simply carry the drain bottle attached to their belt and return to the hospital for this to be removed or emptied as appropriate. The surgeon must decide when it is sensible and safe to remove the drains.

Liposuction can be done in different ways but often involves the injection of large quantities of fluid into the breast space before any attempt is made to suck out the fat. The injection of fluid in effect lubricates the passage of fat into the hollow rods, or "cannulae" as they are called, through which the fat is sucked away. Liposuction is, therefore, an excellent technique to use in somebody with fatty breasts which are not too large and where the skin is still able to shrink in on itself. It is almost impossible to get rid of all the last bits of fat and soft tissue from between the nipple and the muscle without bruising both. Liposuction nearly always gives rise to very extensive bruising because it is rare to use suction drains after liposuction in contrast to almost 100% use after excision surgery.

If liposuction is used, the breast tissue which remains can be expected to turn very hard indeed during the next two to three months. It will then start to soften again slowly. If it is thought that the operation has not succeeded adequately, it is seldom wise to carry out any further surgery for at least six months to allow all the internal scarring to soften.

It is sometimes worthwhile using a combination of liposuction and excision at the same operation. This makes excision easier.

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### COMPLICATIONS

The commonest complication following gynaecomastia correction is the development of a "haematoma". (A collection of blood in the cavity from which the breast tissue has been removed). One can to a limited degree compress the chest wall without interfering with the ability to breathe, and so it is always worthwhile for the patient to wear a firm bandage around the chest during the first few days after the operation.

Some people are worried by the use of the term "blood clot" because they envisage that this means that the person is at high risk of developing a fatal pulmonary embolus. This of course is completely untrue in the case of gynaecomastia. Haematomas are not dangerous but simply a nuisance because a further general anaesthetic and an operation will be needed to remove the blood clot and to prevent any further bleeding.

Haematomas are usually uncomfortable but not dire emergencies and so it will be necessary to carry out the operation to remove the haematoma within 12/24 hours.

Infection is, fortunately, exceptionally rare after this kind of surgery, and I personally cannot recall a single case of infection after gynaecomastia correction. In theory, infection is such a common complication of the surgery in general, that I am sure there must have been cases of infection after gynaecomastia correction, but I think it happens very infrequently.

It is almost certain that the skin over the front of the chest and in the nipple area will be numb for several weeks after the operation, and it is quite possible that some of the skin will not regain it's feeling altogether for up to a year. Fortunately, numbness in the nipples is not a particularly serious matter from the point of view of function, in contrast to the woman in whom nipple feeling may be very important indeed.

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The surgeon will always attempt to produce as smooth a contour of the new breast area as possible. This isn't always particularly easy because the edge of the breast is almost impossible to distinguish from ordinary fat underneath the skin, and the question may arise during the operation of "where do I stop cutting?" For this reason in an over-weight patient it can be very difficult to achieve a smooth contour and one might add "an irregular contour" as one of the possible complications of this operation. It is much easier to produce a very good result of gynaecomastia correction in a slim, fit boy or young man.

If the breasts are exceptionally large, the skin may not shrink as one would like. It tends to fold as it flattens against the chest wall. The only way to remedy this is to cut out some skin and in extreme cases cut the nipple away, tighten the skin and then replace the nipple as a free graft. If one has to remove skin it will inevitably mean more scarring both inside and in the surface and the surgeon must, therefore, discuss this all very carefully with the patient in advance.

One fairly common mistake of trainee surgeons is to fail to take quite enough breast tissue away from just underneath the nipple or from the edge of the breast disc. The patient is relatively pleased with the improvement that has been achieved but because the nipple still sticks out, they still feel embarrassed, and so it is quite possible that a second operation to "tidy up" may be needed.

#### **RECOVERY TIME**

Patients vary enormously in the speed of recovery from surgery. Most boys and young men feel fine again within a week of surgery and can return to normal domestic and leisure activities fairly quickly, provided they don't stress the chest wall too much. It would certainly be inadvisable to return to active sports/keep fit for three to four weeks.

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This is because the chest will still be very tender for up to a month and one doesn't want to disrupt the links between the skin and the chest wall at an early stage, because this might well give rise to a prolonged problem of seroma or haematoma.

The shape of the breasts after surgery may be elegant and smooth and no cause for embarrassment. This usually happens in a slim person but if the patient was overweight prior to surgery, the breast area may well turn out to be somewhat irregular in the early stages of recovery. The patient should be aware that it can take anything up to six months or even a year before one achieves a completely smooth, natural looking contour. It is for these reasons that it is most inadvisable to recommend any secondary surgery to correct the problems from the first operation for at least six months.

On the whole gynaecomastia surgery has a very high success rate and a very high satisfaction rate. However, patients must be aware of the potential problems which can delay healing and delay the return to a satisfactory contour.

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