# Breast Reconstruction

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c. Discomfort and pain
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Introduction - All about breast reconstruction

This booklet has been written for women who have undergone or are about to undergo a mastectomy and are considering breast reconstruction. A woman’s breasts can be an important part of how she feels emotionally and sexually about herself. Some women are content to wear an external breast form (prosthesis) in their bra to restore their shape whilst others are not. There is no right or wrong way to feel about losing a breast. Everyone is different, and what matters is that you find the solution that suits you best.

Important decisions are involved for any woman considering breast reconstruction surgery to restore the appearance of her breast(s). The following information aims to help you to understand more about the different types of breast reconstruction, what breast reconstruction involves and the potential benefits as well as complications that may occur.

It is not possible in this booklet to tailor the information specifically for you as every woman’s needs are different. You are also bound to have more questions than have been answered in this booklet. Therefore it is important for you to discuss these options with your plastic surgeon and their team and any family and friends you wish to involve in helping you to decide what is best for you.
If you are interested in having breast reconstruction, you will be referred to one of our three Consultant Plastic surgeons here at Addenbrooke’s, all of whom are very experienced in all methods of breast reconstructive surgery.

What is breast reconstruction?

Breast reconstruction is an operation to replace the tissue removed during a mastectomy. The aim is to match the remaining natural breast as closely as possible by creating a breast 'mound' using an implant, your own tissues or a combination of both.

The technique that will be most suitable for you will depend on:

- your general health and shape of your body
- previous surgery
- whether or not you have had or are going to have radiotherapy
- your choice and preference

It is not possible to make an exact copy of your own breast. Every effort is made to achieve the best possible breast reconstruction, but results from this type of surgery vary.

Breast reconstruction will result in you having a breast ‘mound’ that will best resemble your natural breast in clothes. When undressed the reconstructed breast will have scars, have no sensation, no nipple, may be different in shape and size to the other breast and may appear more proud with less of a natural droop than your other breast but the symmetry may improve with time.

Additional surgery to your natural breast can be undertaken in the future if necessary to 'lift' it, or to increase or reduce its size to make your breasts more even. A nipple reconstruction is also an option for the future. These extra surgical procedures will assist in making your reconstructed breast look more realistic. However, your reconstructed breast will never appear exactly as a ‘real’ breast would. As with all operations there are risks involved. It is therefore important in making your decision to weigh up the advantages and disadvantages of each technique for you personally. Only you will know how you feel about this and it is often helpful to explore these feelings with your family, friends and your plastic surgery team.
When to have a breast reconstruction

If you decide that you would like to consider breast reconstruction you will need to decide whether you would prefer an immediate reconstruction which is performed at the same time as the mastectomy, or delayed reconstruction which can be done at any time in the future after you have recovered from the mastectomy and completed any other treatment you may require. If you need radiotherapy this might affect your decision as this type of treatment may have an effect on the cosmetic result of your reconstruction. This will be discussed with you at your appointment with your plastic surgeon.

There are many reasons why women choose to have an immediate breast reconstruction. These may relate to lifestyle, how they feel about themselves, their relationships with others and having the surgery ‘all over and done with in one go’. Alternatively, women may also feel that taking one step at a time is preferable. Having a delayed reconstruction may allow more time to consider options and allow time to concentrate entirely on any possible follow-up treatment. Having breast cancer can be a complicated experience and you may need time to adjust to this experience.

An appointment for you to see the plastic surgeons will be arranged as soon as possible in order to help you make your decision regarding possible reconstruction. A date will then be arranged for your surgery when the breast surgeon and plastic surgeon will be available to perform the operation.

Immediate breast reconstruction may allow the breast surgeon to keep most of the breast skin (a skin sparing mastectomy) therefore minimising scarring on the reconstructed breast. Other cosmetic advantages are that keeping the skin of your own breast helps with breast shaping during reconstruction as it acts as an ‘envelope’ to fill. This may possibly reduce the extent to which balancing surgery is needed on the other breast to make both breasts similar in size and shape. The nipple and areola will usually need to be removed as part of the mastectomy. If you are having risk reducing surgery, it may be possible for you to keep your nipples. This should be discussed with your breast surgeon.

Having a delayed reconstruction requires the ‘replacement’ of the breast volume and the breast skin that has been removed as part of the mastectomy surgery. The methods used to do this and how they may differ slightly from immediate reconstruction will be explained to you by the plastic surgeons.

There is currently no evidence to suggest that breast reconstruction increases the risk of cancer returning, nor that the presence of an implant or a flap in the reconstructed breast delays the detection of an abnormality.

If you decide to delay your reconstruction, you have the option of being fitted with a breast form (prosthesis) to wear in your bra following your mastectomy. This not only helps with your appearance but also helps to maintain your posture and balance. If you wish to see some examples of a breast prosthesis do not hesitate to ask your breast care nurse.
Recovery time for each of the reconstructive options varies and is proportional to your age, level of pre-operative fitness and the length and complexity of the surgery performed.

**How is breast reconstruction carried out?**

There are three main types of breast reconstruction:

1. Using an adjustable implant
2. Using a ‘tissue flap’ where some muscle, skin and fat from your back or skin and fat from your abdomen or another part of your body is moved to the chest.
3. Using a combination of both.

**Breast reconstruction using an implant**

In the simplest form of breast reconstruction, an implant is placed beneath the muscles covering the chest; the largest of these muscles is the pectoralis major. This method of breast reconstruction is performed as a one-stage procedure where a silicone implant that has an inflatable inner chamber is used. The implant has a port that allows it to be inflated with saline using a needle and syringe. This process is commenced in the operating theatre and continues in the clinic once your wounds have healed. The port will be buried under your skin and may be located near your axilla (underarm) or just below the breast. This “inflation” process is repeated over a period of time, allowing your skin and muscle to stretch gradually until the desired size has been reached. The inflations are undertaken during regular visits to the outpatient department and the frequency of these visits will be discussed with you by your plastic surgeon. Some adjustable implants may be inflated so that the reconstructed breast is larger than the other side, allowed to mature and then deflated to a more equal size. This helps give the breast mound some “droop” to appear more natural.

The scar from this type of operation is horizontal and located in the centre of the reconstructed breast in immediate breast reconstruction. For delayed breast reconstruction the previous mastectomy scar is used. You should discuss where your scars would be located with your plastic surgeon. This operation involves a general anaesthetic and a stay in hospital of approximately three to five days with a recovery period of four to six weeks. Reconstruction using this method tends to give a ‘proud’ or prominent breast mound with minimal droopiness and it will not drop to the side when you lie down as your breast normally would. A large or droopy breast cannot be achieved using this method.

As the implant is under the chest muscle, the reconstructed breast may alter in shape as you tense your chest muscle. It will return back to its usual shape as you relax the muscle again.
It is possible that you may see the outline of the shape of the implant, or indeed you may see some folds and ‘rippling’ of the implant in some areas of your reconstructed breast. Your reconstructed breast may also appear fuller in its uppermost part. The whole reconstructed breast will have reduced sensation to touch.

After the desired volume has been achieved through inflation and deflation of the implant, the port can remain in place under the skin (if it is not bothering you) or can be removed or hidden behind the implant. This is usually done as day surgery using general anaesthesia. The port in this type of expander can at times turn over under the skin so that it cannot be reached although this is rare.

**Breast reconstruction using an implant with an acellular dermal matrix**

In certain circumstances it may be appropriate to use an ‘acellular dermal matrix’ (sometimes referred to as ‘ADM’) in addition to the adjustable implant to reconstruct your breast. This is a piece of processed animal tissue that can help provide extra coverage of the implant and allow the surgeon to achieve a more natural looking implant reconstruction. It can however cause an increase in the amount of fluid in the breast (called a seroma) produced by your body in the immediate post-operative period which may make it necessary for your drains to stay in for slightly longer than if an implant had been used on its own. Occasionally the use of this tissue can cause a red discolouration in the breast skin however this usually settles after a few weeks. You may require some antibiotics as a precaution against infection in the meantime. The possible inclusion of this tissue into your breast reconstruction will be discussed with you by your plastic surgeon.

In these types of implant reconstruction, some discomfort may be experienced when the expander is being inflated, causing the breast to feel tight and firm. This usually lasts for one to two days after each inflation. If you have had radiotherapy to this area in the past, expansion may not be possible as the skin may have lost a lot of its ability to stretch.

Initially following your surgery there may be a noticeable difference in the size of your breasts whilst you are waiting to start inflation. It is possible to use a temporary prosthesis to wear in a bra to help balance your breasts while you are waiting for inflation of your reconstructed breast to the desired size. Expansion will not usually start until your wounds have completely healed, which is between two to six weeks after the surgery.

If your reconstructed breast is deliberately ‘over inflated’, imbalance may be present for a period of about three months. During this period you can be fitted with temporary ‘shell’ prosthesis on the natural breast if desired by speaking to your breast care nurse.

Breast reconstruction using an implant and ADM would take approximately three to four hours of surgery, you may be in hospital for four to seven days and recovery from this operation is likely to take approximately four to six weeks however it may be a couple of months before you feel you have completely recovered.
All implants are textured silicone shells and can be filled with silicone gel, saline (salt water) or a combination of both. Any type of breast reconstruction using an implant may not be the best option if radiotherapy is needed, but does not have to be ruled out altogether.

**Silicone gel implants**

These are filled with a soft semi-liquid silicone gel. This is the softest implant available and feels more natural than others and is less prone to wrinkling than saline implants. Cohesive silicone gel implants are firmer and have a consistency similar to set jelly so that if the shell ruptures, the gel is less likely to spill out.

**Combination (expandable implants)**

These have an outer silicone layer and an inner chamber for saline which may be filled through a port connected to the implant at the time of surgery as well as following surgery to adjust the implant’s volume. These are the implants most often used for breast reconstruction.

**Are silicone implants safe?**

Silicone implants are very commonly used in the UK. In the past there have been some concerns about possible health risks if silicone leaks from the implant. In the UK, the Department of Health has on four separate occasions in recent years asked scientists and medical specialists to assess the safety of silicone implants and have consistently concluded that they are not harmful. In July 1998 the Silicone Gel Breast Implants Independent Review Group (IRG) found no illness, connective tissue disease or non-specific systemic illness related to the use of silicone breast implants. Therefore surgeons are satisfied that they can be safely used in breast reconstruction and continue to recommend them to women considering surgery.

More recently you may have heard of an issue with a make of implants known as Poly Implant Prosthèse (PIP) which were made by a French company of the same name and are no longer manufactured. These implants have not been used within Addenbrooke’s and have now been removed from use throughout the United Kingdom so this type of implant will not be used in your reconstruction.

**How long do implants last?**

The manufacturers of breast implants generally recommend that they have an average life span of 10-15 years however, they may last much longer. Implants do not need to be replaced unless there is a problem.

**Implant complications**

**a. Infection**

If the implant becomes infected it will have to be taken out in order to treat the infection successfully. If this occurs it may be necessary to wait three to six months before having another implant inserted.
b. Capsular Contracture
When any foreign object such as an implant is put into your body, the body responds by putting fibrous tissue (or scar tissue) around it. Over a few months this fibrous tissue shrinks as part of the natural healing process but the extent of shrinkage varies from person to person. If this contraction is severe then you may experience hardening of the reconstructed breast. This is called capsular contracture. It can be uncomfortable and may change the shape of the implant. Capsular contracture is the most common complication with breast implants and occurs in approximately 10% of women. This mostly occurs in the first year following surgery but some may take up to three years to form.

If capsular contracture does occur, surgery may be indicated to remove part of or the entire capsule and replace the implant. This does not reduce the risk of capsular contracture recurring.

Radiotherapy significantly increases the incidence of capsular contracture. If you know prior to surgery that radiotherapy will be required as part of your treatment, then immediate reconstruction with an implant may not be a suitable option. You may wish to discuss this further with your Plastic surgeon.

c. Implant rupture
Implants occasionally split or leak. If the implant breaks and is saline, the saline will leak into the surrounding tissue and be absorbed. The breast will become obviously smaller and the implant will need to be replaced. If the implant is silicone gel based and leaks, the gel is usually contained within the fibrous capsule formed around the implant and can be surgically removed with the implant. Occasionally the gel may leak into local surrounding tissues and possibly the lymph nodes under your arm, creating a series of lumps which may be tender and result in surgery to remove the silicone and replace the implant.

Breast reconstruction using a combination of a ‘tissue flap’ and an implant

Latissimus Dorsi (LD) flap

The latissimus dorsi muscle is a broad, flat muscle on your back below the shoulder blade. This operation generally involves raising a flap of this muscle and its overlying fat and some skin and while keeping it attached to its own blood supply, tunnelling it below the armpit and repositioning it on the chest wall to create a breast mound.

This does not usually provide enough volume of tissue to form the entire reconstructed breast. An adjustable implant is usually required to be placed behind the repositioned muscle to help match the size of the other breast. Extra muscle and fat covering the implant minimises the visible rippling or wrinkles that can occur at the edge of the implant. It also provides a more natural shape than the implant alone and can produce a good mimic of your other breast. Initially, the reconstructed breast will seem quite proud in appearance but this will settle with time.

In the case of radiotherapy being required after your reconstruction, the muscle layer draped over the top of the implant provides it with some additional protection from...
capsular contracture. The muscle helps to reduce the risk of capsular contracture from forming but it does not eliminate the risk completely.

The scars from this type of operation would be both from where the skin and muscle flap is taken from the back and on the reconstructed breast. It will depend on previous breast scars and whether you have decided to have this surgery at the same time as your mastectomy or as a delayed procedure.

The scar on your back would be either horizontal or diagonal (as suggested below).

As the muscle, fat and skin from the back are tunnelled just below the armpit to the chest, a ‘bulkier’ area will result under the arm. At first this will most likely be swollen from the operation and will settle to some degree, but the remainder of the ‘bulk’ is the muscle still connected to its blood supply. As with any muscle when not used for a while, this bulkiness will get smaller with time (a few months); to what extent varies from person to person, but it will never disappear completely.
The latissimus dorsi muscle is a strength muscle and therefore, if you undergo this type of reconstruction, you may notice that for heavy lifting, you are slightly weaker on that side than before your surgery and you may notice some “twitching” of the muscle in the reconstructed breast although this is rare. You will also notice that you have some numbness to the skin on your back from the level of the scar to the top of your hip which will be permanent. This is because the nerves have had to be divided in order to free up the muscle to be able to move it from your back to your breast.

The surgery takes about three to five hours. The stay in hospital is likely to be about five to seven days. Recovery time from this operation will take approximately six to eight weeks but it may be three months until you feel fully recovered.

**Breast reconstruction using a ‘free tissue flap’**

Free tissue transfer surgery provides the most natural looking and feeling breast of all the types of breast reconstruction as it uses natural tissue rather than an implant. This technique does not usually require an implant as a sufficient amount of tissue is available to form a reconstructed breast. Due to the more extensive nature of this type of surgery, as part of your care you may require a blood transfusion during or after this operation.

**Free TRAM (Transverse Rectus Abdominus Myocutaneous) flap**

A free TRAM flap uses the skin, fat and muscle of the lower abdomen. The muscle used is one of a pair of flat vertical muscles that form the ‘six pack’. Using the muscle as part of the flap can cause greater weakness of your abdomen which you may continue to notice even after you have fully recovered. This procedure is now rarely performed.

**Free DIEP (Deep Inferior Epigastric Perforator) flap**

The free DIEP flap uses tissue from the same area of your lower abdomen as the TRAM flap for breast reconstruction. However, a DIEP flap is made of skin and fat and avoids using the muscle. Instead, the muscle is parted to find the blood vessels that supply the overlying tissue. This procedure is used in preference to a TRAM flap as it significantly reduces abdominal weakness and muscle damage.

For the DIEP flap, the tissue and blood vessels are completely detached from where they currently are and the blood vessels are then joined up to a fresh blood supply in the chest. This usually comes from blood vessels near the breast bone and is necessary to keep the flap alive.
To get to the blood vessels in the chest, sometimes a small part of one rib needs to be removed. Occasionally it is necessary to use blood vessels under your arm to keep the tissue alive.

Using a DIEP flap aims to lessen abdominal weakness by preserving the majority of the abdominal muscle but still causes some weakness. More tissue can be kept alive using this method; however, there is a 5-10% chance of the blood vessels in the new blood supply becoming blocked. If the blood vessels remain blocked, the tissue would not survive.
On your return to the ward from theatre, you will be closely monitored so that any early signs of poor blood flow to the tissue flap will be quickly detected. To help reduce the risk of problems with new blood supply, you and your room environment will be kept warm to prevent reduced blood flow to the flap due to becoming cold. If a problem is detected, it may be necessary for you to return to theatre so the surgeons can restore the blood flow. Unfortunately this is not always successful in which case the reconstructed breast will be lost.

The scars from this type of operation would be both on the reconstructed breast and on the abdomen where the skin and tissue flap has been taken. The scars on your reconstructed breast will depend on previous breast scars, the location of the tumour and whether you are having an immediate or delayed breast reconstruction. They will either be around where the nipple and areola used to be or in addition, extending down to the fold under your breast. If you have a delayed reconstruction there will be a larger semi-circular scar using your mastectomy scar and continuing around under the reconstructed breast.

As a large amount of skin and fat is taken from the abdomen, the abdominal skin is pulled tightly together to create a scar which will run from one hip bone to the other with the aim of being hidden by bikini bottoms where possible. This usually results in the top of your pubic hair line being raised slightly. Your abdomen will also feel tight after the operation until this skin stretches. You will also have a scar around your navel to enable it to remain in the right position when the abdominal skin is pulled closed.

This type of breast reconstruction will result in you having a numb, reconstructed breast and abdomen. They may regain some sensation on the sides as time passes but will have some permanently numb areas as well. This numbness is due to the nerves under the skin being divided.

The free DIEP flap breast reconstruction will take six to eight hours to perform with a hospital stay of five to seven days. A bilateral procedure will take longer to do. You will need to wear a supportive garment on your abdomen for three months after the surgery to help reduce the strain on your abdomen while it heals however it may be six months or longer before you feel fully recovered.
In preparation for this and for any free flap surgery, a CT scan that uses a special contrast is required to ascertain the pattern and size of the blood vessels needed for this type of surgery. This will be organised for you by the Plastic Surgery team once you have had an initial consultation and helps with the planning of your surgery.

The DIEP flap is the preferred option for free flap breast reconstruction as the abdominal tissue most resembles the look and feel of breast tissue. If the DIEP flap is not a suitable option, there may be other tissue on your body that could be used for breast reconstruction.

**Free TUG (Transverse Upper Gracilis) Flap**

A free TUG flap uses skin, fat and muscle from the inner, upper thigh (near the groin crease) to reconstruct the breast. It is usually used in women with small breasts who have inadequate abdominal volume or who may have had previous abdominal surgery making a DIEP flap impossible. Like the DIEP flaps, using the tissue from the thigh for breast reconstruction avoids using an implant and provides a more natural looking breast as it uses natural tissue.

The gracilis muscle is an “adductor” muscle which is used to close your legs together. It is not used for strength so it is considered “expendable” and can be used in reconstruction without affecting the strength in your legs.

The incision on the thigh is usually hidden in the crease of your groin and due to the position of the wound; minor wound healing problems are not uncommon. These usually settle with dressings. You will have some numbness to the inner aspect of your upper thigh which will be permanent. As some of the volume of one of your thighs has been removed to reconstruct your breast, this may result in a difference in the contour of your thighs. This would not be noticeable when you are dressed but will be more obvious when you are undressed or in a swimming costume. Sitting for extended periods should be avoided for four to six weeks and you will need to wear a compression garment on your thighs (similar to cycling shorts) for three months following the surgery. It may however be six months, possibly longer before you feel fully recovered from this operation.

**Free SGAP (Superior Gluteal Artery Perforator) flap and Free IGAP (Inferior Gluteal Artery Perforator) flap**

It may be possible to use tissue from your buttocks for breast reconstruction and the tissue can be taken either from the upper part of the buttock (superior) or the lower part of the buttock (inferior). Tissue from the buttocks is usually used in women for whom reconstruction using abdominal tissue is not possible (for reasons such as insufficient tissue or previous abdominal surgery). The advantage of this type of reconstruction is it avoids the use of an implant and is made entirely of natural tissue. However buttock fat is very firm and does not give as soft a reconstruction as fat from other parts of your body, namely the abdomen.

The skin and fat is taken from the buttock together with the blood vessels keeping it alive and these are detached from their current location and used to reconstruct the breast. A new blood supply is created for the tissue by joining the blood vessels to other blood vessels either on your chest or under your arm.
The SGAP and IGAP flaps avoid using the gluteus maximus muscle; instead the muscle is parted to allow the freeing up of the blood vessels that supply the overlying tissue in order for it to be moved.

The scar from where the tissue is taken will run obliquely across your buttock. It will be across the top of your buttock if you have an SGAP flap and across the lower part of your buttock (near the top of your leg) if you have an IGAP flap. Your plastic surgeon will discuss with you which part of your buttock is the most appropriate to use for breast reconstruction in your case. Following the surgery you may notice some numbness to your buttock which will be permanent. In order to reduce excessive tension on the scar, your mobility will be limited for the first couple of days to prevent healing problems for the wound. You will need to try and avoid bending forward from your hips for approximately two to four weeks to reduce excessive tension on the wound and need to avoid sitting for prolonged periods for four to six weeks. You will notice an asymmetry (imbalance) between the contour and shape of your buttocks as tissue has been taken from one side in order to reconstruct your breast. This may be obvious when you are dressed but may be more noticeable when you are undressed, in a swimming costume, trousers or jeans. You will need to wear a firm support garment (similar to cycling shorts) for three months after your surgery however it may be six months or longer before you feel fully recovered.

### Complications of reconstructive surgery

All surgery comes with the risk of potential complications and a number of factors will be taken into account when considering your suitability for breast reconstruction. The nature of any other necessary treatment for your cancer and your general health will play a role in this decision together with lifestyle factors such as smoking and your Body Mass Index (BMI). It is recognised that smoking and a high BMI increase the risk of serious complications from any surgery and these will be discussed with you by your plastic surgeon. A BMI of 30 or above does increase the risk of serious complications of surgery and a BMI of 35 or above significantly increases the risk of serious complications. This may mean that breast reconstruction is not suitable for you. The implications of these factors on your suitability for breast reconstruction will be discussed with you by your plastic surgeon.

#### a. Wound infection

With any surgery there is a risk of infection. If a wound infection occurs, oral antibiotics are needed and the wound will be monitored in the outpatients department. Occasionally antibiotics are required to be given intravenously; this would mean a short stay in hospital.

#### b. Fluid collections

Serum is a straw-coloured fluid produced by all wounds. This fluid mixed with some blood will collect in your drains following surgery. When these drains are removed the body learns to reabsorb this fluid.

Some people develop a collection of this fluid called a ‘seroma’ under their arm or where tissue has been taken from another part of their body in order to perform breast reconstruction. If the seroma is large or uncomfortable the fluid may need to be removed with a needle and syringe by a doctor or nurse practitioner.
A collection of blood is called a ‘haematoma’ and can develop in the immediate post-operative period. If this does occur it may require surgical drainage or may resolve itself with time. The best course of action will be discussed with you by the Plastic Surgery team.

c. Discomfort and pain
After any operation you are likely to experience some discomfort. People vary greatly as to how much discomfort they experience following breast reconstruction. Depending on the type of reconstruction you choose, a pain relief pump which you control may be used for the first couple of days which will then change to tablets. By communicating with your nurse, your discomfort should be well controlled.

d. Flap loss/necrosis
There is a risk that part or all of the skin and tissue of your reconstructed breast may die due to a compromised blood supply. There are many lifestyle factors which may contribute to this including smoking and body shape together with the type of operation you have chosen. If this does happen there are different options available to try to rectify the problem according to its severity. These include observation or a return to theatre for further surgery.

e. Differences between your breasts
It is not possible to make an exact copy of your remaining breast. Sometimes there will be differences in the size, shape or position of your two breasts. If your weight changes, you may find that one of your breasts changes more in size than the other.

f. Muscle problems
Most women who have had breast reconstruction are able to carry on with most of their usual activities without difficulty once they have recovered from the operation. Occasionally muscle weakness causes some problems. For example, women who have had a reconstruction using one of their back muscles may find that they have less strength in their shoulder or arm. This is usually only noticeable when doing heavy work or playing particular sports. Some “twitching” of the latissimus dorsi may also be noticeable to the reconstructed breast when performing some activities but this is rare. Women who have had a reconstruction using tissue from their abdomen will experience weakness when sitting forward from a lying position and during activities that involve a similar action.

g. Scarring
Scarring after surgery varies from person to person. Its quality depends on the ability of the person’s skin to heal but most people’s scars heal well. The colour of the scar will fade with time and become less noticeable. Some people’s scars heal in a way that becomes red, raised and thickened. If you have other scars, these will be a good indicator of how yours are likely to heal. Often the ends of the scars on the back or abdomen can have a small area that pokes out called a ‘dog ear’. These usually flatten with time, but if not can be surgically removed at a later date.
Can a breast reconstruction hide a cancer?

Having a reconstruction will not increase the chances of your cancer coming back. You will still have regular mammograms of your natural breast as would women who have not had breast reconstruction.

Mammography after breast reconstruction

Mammography of the reconstructed breast is not necessary but you will need to continue having mammograms of your natural breast.

Could a reconstruction affect your chances of cure?

Having a reconstruction does not affect your chances of long-term cure. After reconstruction you should examine both your breasts every month.

Breast feeding

The milk producing glands of the breast would have been removed during the mastectomy so it will not be possible to breastfeed. However, it will still be possible to breastfeed from the remaining breast.

Nipple reconstruction

Some people are content with their reconstructed breast without a nipple. It is possible to have a prosthetic silicone nipple made to use which is moulded from your own nipple to create a similar shape and colour. These are held in place by suction or glue. If you are interested in this, speak to your plastic surgeon or a member of their team.

Some women also choose to have their nipple reconstructed which involves rebuilding the nipple from the skin of the reconstructed breast and gives the three dimensional effect of a nipple. This is usually done some time after the reconstructed breast has healed and settled into its final shape and position. This enables the plastic surgeon to position the nipple accurately, in line with the nipple of your other breast. The timing of this surgery varies with each individual patient depending on any adjustments that need to be made to the reconstructed breast, which are carried out first. Radiotherapy and chemotherapy treatments, if needed after the initial surgery, may also delay the timing of nipple reconstruction. Your plastic surgeon will be able to advise you when you are ready for nipple reconstruction and will then place your name on the waiting list if you wish to have this performed.

The nipple together with the areola may be reconstructed from the skin of the reconstructed breast together with a piece of grafted skin. This graft is usually taken from the top of the inner thigh (which is slightly pigmented) leaving a narrow horizontal scar on the inner thigh and possibly a slight indent. Alternatively, it can sometimes be made from the nipple and areola of your remaining breast where the skin is also darker in colour but this depends on the size of your nipple and areola. These procedures are usually done under general anaesthetic but can be done under local. The nipple without the areola can also be created from skin and tissue from your reconstructed breast only; this procedure is usually done under local anaesthesia.
Whichever method is used, the skin colour is likely to fade in time and the nipple, although initially quite prominent will flatten to differing degrees with time. The reconstructed nipple will have no sensation, no reaction and will not function as a normal nipple. The procedure for nipple reconstruction is explained in more detail in our Nipple Reconstruction leaflet.

**Nipple tattooing**

Once the reconstructed nipple has settled you will be offered the option to have the nipple/areola tattooed to achieve a closer colour match to your natural nipple if necessary; this is usually undertaken three to six months after the surgery. This is usually a painless procedure as the reconstructed breast is numb.

Nipple tattooing can be used alone to create the appearance of a nipple and areola but will not have any projection.

Due to the nature of this medical tattooing, it is usually necessary for you to have multiple sessions of treatment in order to obtain good colour retention. The procedure for nipple tattooing is explained in more detail in our nipple tattooing (micropigmentation) leaflet.

**Lipofilling**

Once the reconstructed breast has settled from the surgery and recovered from the effects of any post-operative treatment such as radiotherapy, you may notice some minor irregularities in the contour of your reconstructed breast. These may be corrected using a technique known as lipofilling (or lipomodelling) which uses fat from another part of your body (commonly the abdomen, thighs, buttocks or hips) to help correct the irregularity. The fat is taken using liposuction and injected under the skin of your reconstructed breast to help fill the areas that require it. The injected fat then picks up a new blood supply from the tissue now surrounding it to keep it alive. Not all the injected fat will pick up a new blood supply and some of it may be absorbed by your body rather than fill up the contour. Previous treatment, such as radiotherapy and lifestyle factors such as smoking, may affect how successfully this happens and so not all the fat injected may survive. To maximise the survival of the grafted fat you will need to stop smoking. Initially the improvement will seem quite noticeable however you may notice with time that the fullness decreases and it may be necessary to repeat the process to gain the desired effect. This procedure would be undertaken using a general anaesthetic and is described in more detail in our Lipofilling leaflet.

**Surgery to the other breast**

Surgeons carrying out breast reconstruction aim to match the size and shape of the reconstructed breast to your remaining breast however this is not always possible. Again, you may be content with your surgery results and choose to have no further surgery. Alternatively, you may want your breasts to be more even and opt for surgery to your other breast to achieve a better match for when you are not wearing clothes.
This may involve:

1. Reducing (reduction) or lifting (mastopexy) your remaining breast
2. Enlarging (augmenting) the size of your remaining breast.

With a breast reduction and mastopexy the shape of the breast is altered and hence the nipple position requires adjusting so that it is in the correct position. The possibility of having further surgery to your other breast will be discussed with you by your plastic surgeon.

We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.
For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

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