personal experience professional support

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.**

Breast reconstruction

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A large print version of this booklet can be downloaded from our website, **www.breastcancercare.org.uk** It is also available on audio CD or in Braille on request. Call **0845 092 0808** for more information.

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Contents

Introduction 2

What is breast reconstruction? 3

Who can have reconstruction? 4

Reasons for having reconstruction 5

Finding a surgeon 6

Types of reconstruction 8
Reconstruction using an implant 8
Reconstruction using your own tissue (tissue flap) 12

Nipple reconstruction 18

Lipofilling 19

Surgery to your other breast 20
Breast reduction 20
Breast enlargement (augmentation) 21
Breast uplift (mastopexy) 21

Recovering from breast reconstruction 22

Possible problems following surgery 24
Immediate problems 24
Longer-term problems 25

Being breast aware 27

Beyond this booklet 28
Further support from Breast Cancer Care 28
Recommended books 30
Cancer organisations 30
Useful addresses 31

Introduction

This booklet is for women who have had or need to have part of a breast, or one or both of their breasts removed to treat cancer. It may also be useful for women who are considering breast reconstruction for other reasons such as uneven breast development or after breast removal to reduce their risk of developing breast cancer (if there is a significant family history).

Reconstruction is not commonly used in men who have a mastectomy for breast cancer because it is harder to recreate the correct shape of a man's breast. However, it may be worthwhile for men to discuss some of the techniques described in this booklet with their specialists as it is sometimes possible to improve the appearance of the chest with surgery. For more information, please see our resource pack **Men with breast cancer**.

There are a range of techniques used to reconstruct the breast and the right one for you depends on your preferences and individual circumstances. Breast reconstruction surgery is a rapidly evolving area with new variations on existing techniques. Each operation is adapted to match your individual needs and shape and the outcome will differ from person to person. This booklet will give you a basic understanding of breast reconstruction and the options available.

What is breast reconstruction?

Breast reconstruction is the creation of a new breast shape using surgery. It may be carried out following removal of the whole breast (mastectomy) or removal of part of the breast (segmental mastectomy, quadrantectomy or wide local excision). The new breast can be created using an implant and/or your own tissue transferred from another part of the body, usually the back or abdomen (stomach). Your reconstructed breast is unlikely to have a nipple but surgery can also be used to create a new nipple, or prosthetic stick-on nipples can be used (see page 18 for more information).

The aim of reconstruction is to create a breast that matches the remaining breast in size, shape and position and feels as soft and natural as possible. However, you will notice differences.

A reconstructed breast will not look or feel exactly the same as the breast you have lost; it will often be a slightly different size and shape. These differences should not be noticeable when you are clothed, in a bra or in swimwear. However, when you are undressed the differences are more obvious. Your newly formed breast may feel firmer and sit higher than before. You won't get the same sensations from your reconstructed breast as you used to and you may have no sensation at all.

You will be able to see some scarring, although this will usually fade with time. Your natural, remaining breast will change over time and droop a little as you get older. But your reconstructed breast will not change in the same way. In general however, many women find the results acceptable and, especially when dressed, feel confident about the way they look.

There are often different options available for breast reconstruction and your surgeon will explain which are most appropriate for you. It is important to take time considering these options and that you don't feel under pressure to make a decision.

Sometimes surgery on the remaining breast is recommended to achieve evenness and balance, but this is generally not performed at the same time as the reconstructive surgery. This is to allow the original surgery to settle into a permanent position and any swelling to reduce so that symmetry may be achieved at a later date. Where both breasts are being reconstructed the aim is to recreate breasts that match and are in proportion to the woman's body shape. The overall aim is to make a woman feel confident about her shape.

Who can have reconstruction?

Most women who have had a whole or partial mastectomy can have breast reconstruction, either at the same time as their initial surgery for cancer (immediate reconstruction) or months, even years, later (delayed reconstruction). Sometimes reconstruction is not advised because of other existing medical conditions that might increase the risk of problems and complications following surgery. If you are advised against reconstruction your surgeon will explain the reasons why.

Immediate reconstruction with an implant is not always advisable for women having radiotherapy as it can increase the risk of a hard capsule of scar tissue developing around the implant (capsular contracture) (see page 25). Therefore, if you are going to have radiotherapy you will usually be advised to delay an implant-based reconstruction for up to 12 months after treatment to allow your skin and tissue to heal first.

If you are waiting to have breast cancer surgery, you should be given the chance to discuss reconstruction beforehand. Speak to your specialist team who will be able to explain your options to you, or may refer you elsewhere if they are unable to offer breast reconstruction where you are being treated.

Reasons for having reconstruction

Surgery for breast cancer is likely to affect how you look and feel in some way. Some women find it harder than others to accept the idea of losing one or both of their breasts. There is no correct way to react and every woman has a right to have surgery to restore her breast shape if she chooses. Reconstruction can be an important part of treatment that helps emotional recovery and wellbeing.

After having a mastectomy, women can be concerned about the shape of their bodies and the look of their breasts under clothes. While some women prefer to wear an external breast form (prosthesis) inside their bra to restore their shape, others find this unacceptable. Everyone is different, and what matters is that you reach the outcome that suits you best.

Like many women, you may choose breast reconstruction because your breasts are an important part of your body image, self-esteem and sexuality. How your partner feels may also play a part in your decision, but it is important that you make the right choice for you.

If you are not in a relationship at the time of your breast cancer surgery, you may be particularly concerned about the prospect of meeting someone new. Reconstructive surgery may help you feel more at ease when forming new relationships and allow you to decide if and when you want to talk about your breast cancer.

For more information about relationships you may find our booklet **Sexuality, intimacy and breast cancer** helpful.

Finding a surgeon

Whether you are treated on the NHS or privately, your reconstruction will usually be carried out by a specialist oncoplastic breast surgeon (a breast cancer surgeon who is trained in plastic surgery techniques) or a plastic surgeon trained in breast reconstruction. In the UK oncoplastic breast surgeons perform the majority of breast reconstructions, but increasingly they work together with plastic surgeons who specialise in breast reconstruction. This team approach allows patients to benefit from a full range of reconstruction options.

Some reconstruction operations require surgeons trained in microvascular surgery (operating on tiny blood vessels), and it may be that you have to be referred to a specialist some distance from your home. You may find it helpful to discuss your reconstruction options with more than one specialist. If so, your GP or surgeon may be able to recommend someone else in your area.

You can find information about surgeons who perform breast reconstruction surgery, and in which hospitals, on the internet. The Dr Foster website is a good place to start and the British Association of Plastic, Reconstructive and Aesthetic Surgeons also gives a list of hospitals with plastic surgery units. See the *Useful addresses* section on page 31 for details. If you don't have access to the internet you can contact the Breast Cancer Care helpline for more information on **0808 800 6000**.

Women who want reconstruction at a later date after completing treatment for breast cancer can still have their operation free on the NHS. However, there is a shortage of surgeons who can perform this type of surgery in some areas which may mean facing a long wait.

If you choose private health care for your breast cancer treatment, many health insurance plans also cover the full cost of breast reconstruction. It is important to contact your health insurance company for further details to find out what is covered on your policy and also to talk to your surgeon.

Before you decide to go ahead with your operation, you need to be sure that your surgeon has answered all your questions. It is perfectly reasonable to ask to see photographs of other breast reconstructions that the surgeon has done. If you would like to talk to someone who has had breast reconstruction, Breast Cancer Care can put you in touch with one of our volunteers. Call our helpline or visit our website for more details. Your breast care nurse may also be able to arrange for you to talk to someone who has had a reconstruction.

Your surgeon will want you to go into the operation with a full understanding of what is going to happen and with realistic expectations of how your reconstructed breast will look. Don't go ahead until you feel you have been given all the facts and have received answers to all your questions. You may find writing down any questions that you want to ask and taking notes during the consultations helpful. Taking someone with you can help you to remember what has been discussed and also give you extra support.

Remember, you can have a reconstruction months, or even years, after your breast surgery, so you have plenty of time to make your decision if you opt for a delayed operation. During this time you may adapt to your mastectomy and feel that you no longer want to go through further surgery; it is fine to change your mind.

Types of reconstruction

There are two main types of breast reconstruction – reconstruction using only a breast implant and reconstruction using your own tissue (a tissue flap). This tissue can be taken from a number of places in the body, although the most common sites are from the back or the lower part of the abdomen. You may have a number of choices available to you, although one type of operation may be the most suitable for you depending on your shape and build and whether you are having or have had radiotherapy treatment to the breast. You can see animations of the main reconstruction techniques on our website www.breastcancercare.org.uk

Reconstruction using an implant

Implant under the muscle

If the breast cancer can be removed without taking away too much skin and the remaining breast is not too large and doesn't have a significant droop, an implant may be inserted under the chest muscle to replace the removed breast tissue. Using a breast implant alone is the simplest type of reconstruction operation and the recovery time is likely to be the quickest in comparison to other reconstruction procedures.

The surgeon will insert the implant under the chest muscle; this helps keep the implant in the correct position and makes the outline of the implant less obvious.

Breasts reconstructed in this way tend to be more round and firm and move less naturally. The newly formed breast will not droop with age and may look higher than the other breast, so this type of operation may not be a good option for older women.

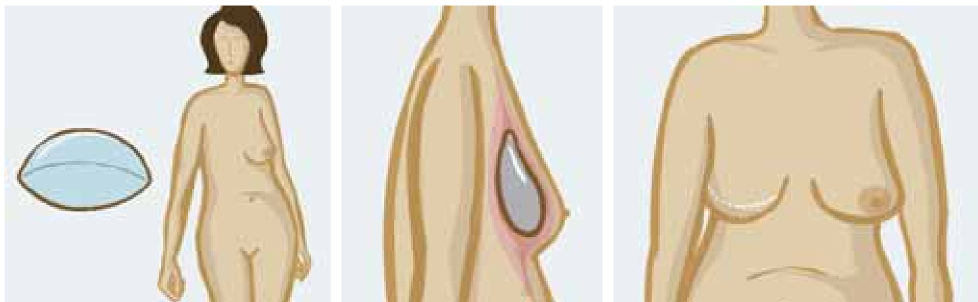
Scars will vary following this operation but will usually be horizontal across the mid line of the newly formed breast. You can ask your surgeon about the position of the scar before the surgery takes place. This procedure is most commonly done as an immediate reconstruction operation.

Tissue expansion

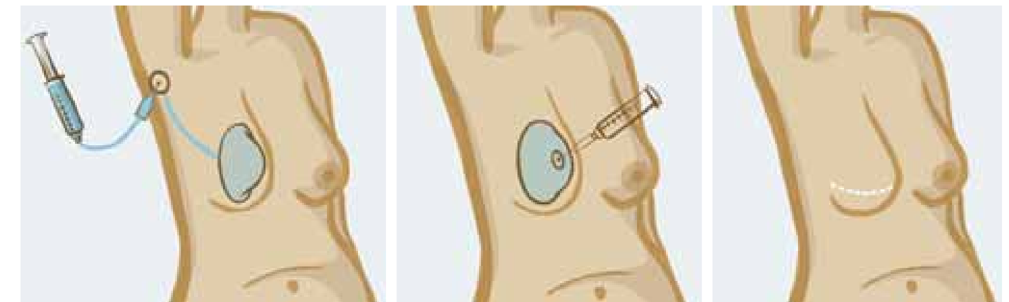
If you don't have enough skin left on your chest to comfortably cover and support an implant, particularly if you are having delayed reconstruction, it may be possible to stretch your skin over time so that a permanent implant can be inserted and also to create a more natural looking droop of the breast. Most women who have an implant-based reconstruction (either as an immediate or a delayed procedure) will require some tissue expansion to stretch both the remaining skin of the chest wall and the muscle pocket that covers the implant.

Skin is very elastic and has a surprising ability to stretch. However, tissue expansion is not usually suitable for women who have had or are due to have radiotherapy treatment as this will affect the elasticity and quality of the skin. In some cases surgeons may be able to insert a tissue expander implant (see page 10) immediately after a mastectomy to create and preserve a 'cavity', with the implant being inflated

Implant under the muscle



Tissue expansion



once radiotherapy has finished. This process aims to reduce the risk of capsular contracture (see page 25).

Tissue expansion is also unsuitable for women with very large breasts as it is difficult to make a good match.

There are two different ways of expanding the chest tissue. One is to put an inflatable implant (expander) under the chest muscle and gradually expand it over several weeks using regular injections of sterile saline (salt water) solution. This is usually done during a series of outpatient appointments every one or two weeks, with the total number of appointments needed varying from person to person.

The solution is usually injected into a small injection port which is placed just under the skin (usually in the armpit) with a tube leading to the expander. With some types of implant the port is located in the actual expander so that the solution can be injected directly.

The expander is generally inflated until the new breast is slightly larger than the other breast and then left for a few months to allow the skin to stretch. The excess fluid is then removed through the port so that the new breast droops slightly, with the aim of mirroring the other breast more closely. A further operation is needed to remove the expander and port and replace it with a permanent implant which will be your final breast shape.

The other option, which is now more common, is to use a permanent expander implant from the start. As before, the expander is gradually inflated over several weeks and left slightly over-inflated for a further few weeks to allow the skin to stretch.

When you and your surgeon are happy with the shape and size of the breast, any excess fluid is then removed to try and match your new breast with your other breast. The port can then be taken out under local anaesthetic leaving the expander implant in place.

When breast expanders are being filled, you will feel a stretching sensation and tightness within the breast. It can be uncomfortable for a day or two after each inflation, but it should not be painful.

The resulting scarring after this type of operation is likely to be in a horizontal line across the breast. However, if this technique is used as an immediate reconstruction procedure the implant may be placed through the areola (the darker area of skin around the nipple) and will result in different scarring.

Tissue expansion is especially useful for younger women with small and firm breasts, and it also avoids the need for more extensive surgery using tissue flaps from other parts of the body. However, it may be necessary at some point to have further surgery to the reconstructed breast, or to the other breast, to achieve a better match.

What are implants made of?

Breast implants have an outer shell made from silicone elastomer (similar to rubber). The shell is filled with silicone gel or saline. The surface of the implants may be smooth or textured.

Silicone gel

Most implants used for reconstruction surgery contain silicone gel and these tend to look more natural than saline implants. The gel may be firm and feel more jelly-like or may be softer and feel more fluid-like depending on the type of implant used.

Saline

Saline is an alternative to silicone gel, although the outer shell of the implant is still made of silicone. These implants contain a liquid rather than a gel so are more likely to ripple under the skin and can sometimes leak. The solution is absorbed within the body and is not harmful, but as the saline leaks out the breast gradually gets smaller and the implant eventually has to be replaced. Saline implants are also heavier, which may restrict the size that can be used.

Expander implants

This type of implant uses both silicone gel and saline. The outer shell is made of silicone and the inner shell is an expander implant with an adjustable saline filler. It is used in both immediate and delayed reconstructions.

Once inserted, implants are very difficult to damage. This means that you can continue with all your normal activities including travelling by plane and taking part in sports.

Are silicone implants safe?

Silicone implants were first used in the early 1960s. During the 1980s many women, mainly in the US, began to link a range of illnesses with their silicone implants. They experienced various symptoms, from headaches to insomnia, extreme tiredness to loss of sex drive, and they felt that these were caused by leaks of silicone gel from their implants.

Experts have regularly examined all the evidence for and against silicone gel implants and have consistently concluded that they are not harmful. All implants sold in Europe have to pass strict safety checks. Surgeons are satisfied that they can be safely used in breast reconstruction and continue to recommend them to women considering surgery.

Modern silicone gel implants are expected to last at least 10 to 15 years, but there is no need to replace them after this time if there are no problems.

The Medicines and Healthcare Regulatory Agency (MHRA) has a publication called *Information for women considering implants* which you may find useful. For details and further information, see *Useful addresses* at the back of this booklet.

Reconstruction using your own tissue (tissue flap)

Another commonly used type of reconstruction uses flaps of your own tissue, usually taken from your back or abdomen, which is then reshaped to form the new breast. This method is particularly useful for creating a moderate to large sized breast and one that has a natural droop.

It is also a procedure commonly used in delayed reconstruction when women are unable to have tissue expansion because they have previously had radiotherapy. Flaps without implants may also be used for immediate reconstructions for women who are going to have radiotherapy treatment.

This type of surgery involves a longer operation and more time both in hospital and at home to recover than an implant-only reconstruction. However, you will be less likely to need further surgery in the future than with reconstruction using implants alone. A reconstructed breast using tissue instead of an implant may also provide a better match with your other breast in the long term. This is because tissue can react to gravity and weight change more naturally.

When the surgery is carried out, the flaps may remain attached at one end to their original anchoring point and to their blood vessels (pedicled flap) or they may be completely detached from the body along with their blood vessels and re-attached in the position of the reconstructed breast (free flap).

There are many different variations of this method of reconstruction (see below) and surgeons are constantly developing new ways of improving the cosmetic result. Your surgeon will be able to advise you on the best option for you.

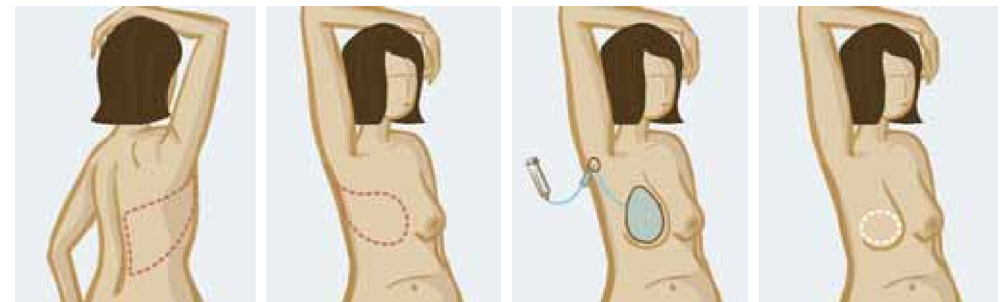
Back (latissimus dorsi) flap (LD flap)

This procedure uses the latissimus dorsi muscle – a large muscle that lies in the back just below the shoulder blade. The skin, fat and muscle are removed from the back but the blood vessels of the flap remain attached to the body at the end nearest the armpit.

The flap is then turned and carefully threaded through a cut made below the armpit and is brought round to the front of the body to lie over the chest wall and form the new breast. Some of the skin in the flap can be used to form some of the new skin of the reconstructed breast while the muscle and the fat is used to form the volume of the breast. However, it is usually necessary to also use an implant under the flap to make the new breast a similar size to the other one. Most commonly, an expander implant is used and the expansion process starts when the tissue flap has healed, usually two or three weeks after surgery.

Sometimes surgeons will offer an extended latissimus dorsi flap operation meaning that a larger amount of tissue is taken from the back so that a smaller

Back flap



implant may be used, or no implant at all. This can give a more natural look and feel to the breast.

The scar on the back is usually horizontal and hidden along the bra line, or sometimes it can be diagonal. The scar on the breast will usually be oval in shape, but can vary depending on your shape, the size of your breast, and whether you have the reconstruction done at the same time as your mastectomy or as a delayed procedure.

After an LD flap reconstruction, most women will not notice any significant weakness in the shoulder during everyday activities. However, those who are very physically active, especially professional sportswomen, may notice some degree of weakness and this should be taken into consideration when deciding what method of reconstruction is best for you.

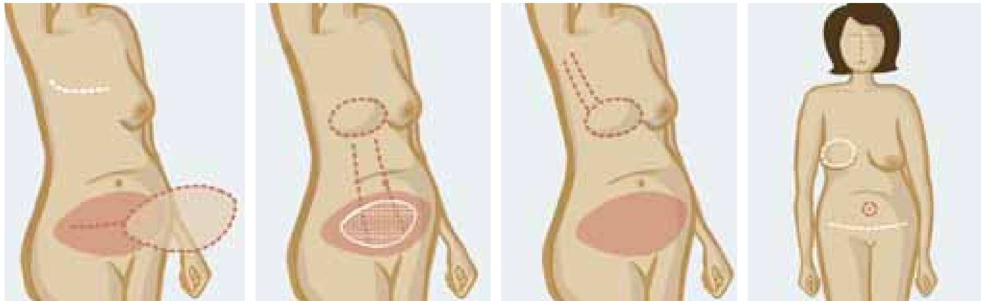
TRAM (transverse rectus abdominis muscle) flap

This technique uses the large muscle that runs from the lower ribs to the pelvic bone in the groin. There are two types of TRAM flap operation.

During surgery the flap may remain attached at one end to the original anchoring point and the original blood supply (pedicled flap) or it may be completely detached and re-attached (free flap).

In a pedicled flap, a piece of the rectus abdominis muscle, along with its overlying fat and skin and blood supply, is taken under the skin of the abdomen and chest and brought out over the area where the new breast is to be made. Usually there is enough fat in the flap to make the new breast the same size as the other one without the need for an implant.

TRAM flap



In a free flap operation the muscle, fat and skin are removed completely from the abdomen and the surgeon forms a breast from this tissue. The blood vessels that supply the flap are re-connected to blood vessels that lie in the region of the reconstructed breast, either under the armpit or behind the breastbone. Joining the vessels together is known as microvascular surgery.

If the flap of tissue doesn't get a sufficient blood supply following this procedure it will die and the reconstruction will fail – in which case further surgery will be needed to remove the flap and perform the reconstruction again at a later date, if possible (see page 25).

Either type of TRAM flap operation may weaken the abdominal wall which can be noticeable afterwards when lifting or during sporting activities. During the operation the surgeon may put a 'mesh' into the abdomen to help strengthen the muscles and to try and avoid the formation of a hernia (a bulge or protrusion where the wall of the abdomen has been weakened).

The free flap TRAM is a longer and more difficult procedure, with a greater risk of complications, than the pedicled flap and will require a more lengthy recovery time.

The LD flap and both TRAM flap operations may give a similar looking result. However, TRAM flap procedures generally produce a more natural, softer feeling breast which is likely to age better with time and adapt to any weight changes.

You will need to be in good overall health to undergo either type of TRAM flap procedure. You will also need to be a non-smoker, have no existing scars on your abdomen and will need to have adequate fat in the lower abdominal area. However, if you are very overweight you may be advised to lose weight prior to being offered this type of surgery. This is to reduce your risk of complications from both the anaesthetic and the surgery.

Both types of TRAM flap leave a scar across the width of the abdomen, usually placed just below the bikini line. The scar on the reconstructed breast will be circular or oval and will vary in size from person to person. Having this type of surgery also means that the umbilicus (belly button) is repositioned during surgery, resulting in a circular scar around it.

DIEP (deep inferior epigastric perforator) flap

An increasingly common type of breast reconstruction procedure using a free flap of your own tissue is the deep inferior epigastric perforator, or DIEP flap. This type of flap uses skin and fat, but no muscle, to form the new breast shape. The flap is taken from the lower abdomen along with the deep inferior epigastric artery and veins.

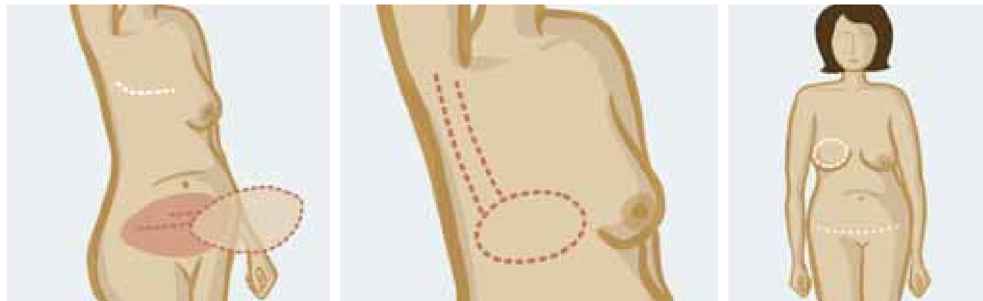
The flap is transferred to the chest and shaped into a breast while the artery and veins are connected to blood vessels in the armpit or chest wall using a specialised technique involving microvascular surgery (in a similar way to the free TRAM flap). If the flap of tissue doesn't get a sufficient blood supply it will die and the reconstruction will fail (see page 25).

The advantage of this type of reconstruction is that no muscle has to be removed so the strength of the abdomen is not affected. This means there is very little chance of developing a hernia and no mesh needs to be used.

Like the pedicled and free TRAM flaps, the DIEP flap is major surgery involving a long and complex operation, and you will need to be in good overall health to go through the procedure and lengthy recovery period. You should also be a non-smoker, have no existing scars on your abdomen and have adequate fatty tissue in your lower abdominal area. Again, if you are very overweight you may be advised to lose weight prior to being offered this type of surgery.

There will be scarring on the breast which is usually oval, and on the abdomen – usually below the bikini line stretching from hip to hip, similar to after a TRAM flap operation.

DIEP flap



Other free flap reconstructions

Surgeons are developing new techniques to take flaps from other areas of the body and are working to improve the cosmetic result.

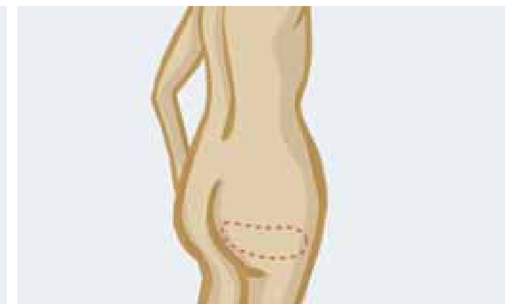
These newer types of free flap reconstruction use tissue from the buttocks, thighs or hips and include the free SGAP (superior gluteal artery perforator flap) and the IGAP (inferior gluteal artery perforator flap) - where the fat and skin is taken from the upper or lower buttock to make a new breast.

These techniques are mainly reserved for women who are not suitable for any of the other types of reconstruction. They may be appropriate for women who are too slim for tissue to be taken from their abdomen or who have scarring from previous surgery to their abdominal or back area. Only a few surgeons in the UK offer these techniques and you may need to travel to another centre if you require this type of surgery.

As with all types of flap reconstruction, these are generally not suitable for women who are diabetic, heavy smokers, very overweight, or who have had some types of abdominal surgery.

Superior gluteal artery perforator flap

Inferior gluteal artery perforator flap



Nipple reconstruction

Mastectomy usually means removal of the whole breast including the nipple and areola, but it is possible to have the nipple reconstructed. It is usually done a few months after the breast reconstruction to give the new breast time to settle into its permanent position.

There are several ways of reconstructing a nipple, so you may want to discuss different options with your surgeon.

A reconstructed nipple can improve the appearance of your new breast, but it won't feel the same as a natural nipple. It has none of the normal nerves that allow it to rise (become erect) or flatten in response to touch or temperature.

For a new nipple to look as realistic as possible it needs skin of the same shade as the other nipple. Skin can be taken from the areola around the other nipple or the top of the inner thigh where the skin is darker than the rest of the body. But however good the initial result, the reconstructed nipple may flatten over time and resemble your other nipple less closely.

Alternatively, once the surgery has had time to settle and heal, a nipple and areola can be created by colouring the skin to match the other side. This is known as micropigmentation and is similar to tattooing. Sometimes this procedure needs to be repeated to give a better result. The colour will fade over time but should last for one and a half to two years.

Where reconstruction is being done at the same time as the breast surgery, in a small number of cases the nipple from the breast that is being removed can be relocated onto the new breast. This is only possible if the surgeon is as sure as they can be that there are no cancerous cells in the nipple or the tissue behind it.

Giving your new breast a nipple can be another stage in creating a breast that looks as natural as possible. On the other hand, you may be quite happy with your reconstructed breast and choose not to have nipple reconstruction. Or you may decide to use stick-on nipples that can be custom-made, sometimes by the hospital, to match the natural nipple or bought quite cheaply, ready-made.

Lipofilling

This is a new procedure in breast surgery and may be used to correct 'dents' in the breast tissue which are sometimes created during breast-conserving surgery. It may also be used to enlarge the other breast to give a better match. This technique uses fat taken from one part of the body (liposuction) which is injected into the breast. The process can be done under a local anaesthetic and may need repeating if the correct shape is not achieved. Your surgeon will explain the possible side effects that may be associated with this procedure.

Surgery to your other breast

Surgeons always try to create a new breast that matches your natural breast. If it is difficult to get the size, shape or position right, you may decide to have an operation on your remaining breast to improve the match and symmetry. This may mean making the remaining breast a little smaller or larger, lifting it or relocating the nipple. These procedures will all leave some scarring which will fade with time. Any surgery to the natural breast is generally done in a separate operation to give the reconstructed breast time to settle.

If you have your reconstruction done privately it is worth checking that any surgery to your other breast is covered under your plan; if it isn't you may have to pay extra.

Breast reduction

Sometimes it may be necessary to remove tissue and skin from the remaining breast to make it smaller and more in balance with the new breast. The position of the nipple and areola is usually moved to make it more central on the breast. For very large breasts the surgeon may need to remove the nipple and areola and graft them back on.

Breast reduction usually leaves some scarring around the areola, down the central part of the breast and along its underside. This is not noticeable when wearing a bra. There may be less feeling and sensation in the breast and you may not be able to breastfeed in future.

Breast enlargement (augmentation)

Sometimes the reconstructed breast may be larger than your natural breast, especially if you have had an implant. You can have an implant placed either under the breast tissue or behind the chest wall muscle of your remaining breast to make both breasts more balanced. Scarring is usually in the fold beneath the breast, around the areola or in the armpit.

The feelings in the nipple and skin can change after breast augmentation and you may find that the nipple is less or more sensitive for a few months after the operation. When implants are used in addition to the natural breast, mammograms (breast x-rays) may still be required in the future (see page 27 for more information). Breast enlargement does not usually prevent you from breastfeeding in the future.

Breast uplift (mastopexy)

Mastopexy is an operation to raise, reshape and firm the breast, which improves any natural drooping. A strip of skin is taken from under the remaining breast or around the nipple to tighten and lift the skin over the breast. You may have similar scarring to that found after breast reduction, but this can vary. However, you should still be able to breastfeed.

Recovering from breast reconstruction

Your operation will be carried out under general anaesthetic. It may take anything from one to two hours to put an implant under your chest muscle, three to six hours for a pedicled LD or TRAM flap reconstruction and up to 10 hours for a free flap reconstruction.

When you wake up you will find dressings on your newly reconstructed breast and, if you have had flap surgery, on the area where the flap has been removed. You will probably have drainage tubes coming out of the wounds to get rid of any excess blood or fluid and you may start a course of antibiotics to reduce the chance of infection.

You will probably feel sore anywhere your surgeon has been operating and you will be given painkillers. There are many types of painkillers and different ways of giving them. If you are still in pain despite having this medication, tell the staff taking care of you.

Your recovery time will depend very much on which type of reconstruction you have had. After an implant operation you will probably be out of bed within a few hours and may be able to go home the next day. If you have had more extensive surgery it will take longer for you to be up and about and you may stay in hospital for up to a week. You may be given advice and information from a physiotherapist on breathing correctly and how to go about everyday tasks such as getting in and out of bed and walking - particularly if you have had abdominal surgery.

You are likely to feel tired following any kind of surgery and you will be unable to do as much as you are used to for up to several weeks. When you get home you will need to take things easy for a while. Again, how quickly you recover will depend on whether you had implant or flap surgery. You will be advised how best to look after your wounds and you will also be advised about stretching, bending, lifting and driving during the healing process.

You will be given some specific exercises to keep your arms and shoulders mobile. These vary according to the operation you have had and your surgeon's recommendations. Your breast care nurse or surgeon will also tell you what sort of bra is suitable to wear to support your new breast and give advice about massaging the area to keep the skin supple and in good condition. Again this advice will vary from person to person.

The newly reconstructed breast takes a while to settle and resemble a natural breast. It is normal for it to be bruised and swollen for quite a while and the scars will take time to heal. Be patient, but if you are concerned about any part of your recovery talk to your breast care nurse or GP.

Possible problems following surgery

Immediate problems

Infection

If you have a raised temperature and/or notice any redness, excess swelling or heat in the breast let your GP, breast care nurse or specialist know straight away as these may be an indication that you have an infection. Treating an infection is easiest and most effective at the first sign of problems, so be sure to report any changes. Occasionally an infection develops around an implant that doesn't respond to treatment with antibiotics. In this case, the implant may have to be removed to allow the infection to completely settle. Another implant can then be inserted at a later date.

Build-up of fluid/blood

The drainage tubes that were put into your wounds during surgery in order to get rid of any excess fluid are usually removed a few days after the operation. However, blood (haematoma) or fluid (seroma) may continue to build up around the wound sites. These will normally be re-absorbed naturally over time, but larger amounts may need to be removed with a needle and syringe by your surgeon or breast care nurse. If you have an implant, the doctor or nurse may use ultrasound (high frequency sound waves that produce an image) to help guide them. This procedure can be done as an outpatient and will not require you to stay in hospital.

Pain and discomfort

You may continue to feel sore and stiff for several weeks after surgery, but this should gradually disappear. It may be helpful to carry on taking painkillers. Your wound may also itch as it heals but this is natural; try not to scratch it.

After immediate reconstruction surgery, the arm or hand on the side of your operation may tingle or feel numb as a result of the minor nerves in your armpit being damaged during the removal of the lymph nodes. The tingling should disappear after a while, although in rare cases you may continue to experience numbness for some months.

If you have had an abdominal flap operation you will probably feel uncomfortable when you bend over, cough or sneeze for a few weeks after surgery. Take things gently and support your wound with your hands if you need to.

Tissue failure

With flap methods of reconstruction, there is a risk that the flap, or part of the flap, will die if it doesn't get an adequate blood supply. This is rare, but if it does happen you may need another operation to remove the affected tissue. Your surgeon will then talk to you about your options for further reconstruction.

Longer-term problems

Capsular contracture

In the first year or so after an implant operation, tough fibrous tissue builds up around the implant to form a 'capsule'. This happens because the body sees the implant as a 'foreign object' and wants to isolate it. In most cases this capsule stays soft and supple but sometimes it tightens around the implant, making the breast feel hard and sometimes painful. This is known as capsular contracture. Radiotherapy can cause capsular contracture, which is why women having this treatment are not usually recommended to have reconstruction using an implant.

Fortunately capsular contracture is now less common. This is possibly because implants have a textured outer surface that reduces the amount of scar tissue that forms around the implant. There are different degrees of capsular contracture and in mild cases no treatment is necessary. Occasionally the contracture is severe enough to make the breast feel hard and look misshapen. Eventually the capsule will need to be surgically removed and the implant replaced.

Leakage and rupture

Although modern silicone implants are expected to last at least 10 to 15 years, when they do wear out the silicone gel may leak into the fibrous capsule. In a very few cases silicone gel may get into the breast, forming a lump. If this can be felt or a scan shows a ruptured implant, the implant may have to be removed and replaced. However, modern casings are stronger than those used 10 or more years ago, so the risk of leaks and rupture has been reduced. If you do notice any deflation of your new breast or if it becomes misshapen, uncomfortable or swollen, tell your surgeon or breast care nurse.

Creasing and wrinkling

The appearance of skin creasing or wrinkling over the implant can be noticeable. This is most often seen in people who are slim and have saline implants. It is usually less obvious when wearing a bra. Sometimes the implant will need to be replaced if this becomes very noticeable.

Unevenness

It will take several months for your new breast to settle down and for scars to fade. It is only then that you can really judge whether you are satisfied with the look and feel of your new breast and how well it matches your other breast. If you are unhappy with its appearance - its size, shape, positioning of the nipple - there are still things that can be done. You may want to consider further surgery to your new breast or to your other breast to give you a better match and symmetry. Before you make any decision, discuss your options with your surgeon or breast care nurse.

Abdominal hernia

A hernia can develop following a TRAM flap operation because the abdominal wall is weakened when the muscle is removed. To reduce the chances of this happening, a thin sheet of plastic mesh may be used to strengthen the abdominal wall. Hernias usually become noticeable as a bulge somewhere in the abdomen and they can cause pain when lifting or standing for long periods of time. If a hernia does occur it can be repaired with a fairly simple operation.

Being breast aware

It is still important to be breast aware after reconstruction surgery. Once your breast has settled down, get to know the way it looks and feels. If you have had an implant-based reconstruction look out for hardness or tightness, indicating capsular contracture, or rippling of the implant.

After any type of breast reconstruction you should look out for changes in the breast; these include a change in appearance or shape, a lump or lumpy area in the breast or armpit, a change in skin texture or swelling in the upper arm.

If you notice any changes in either of your breasts you should tell a member of your specialist team or your GP. If there is any concern that your cancer has come back your specialist will arrange further tests.

For more information about being breast aware, you may find our booklet **Your breasts, your health** helpful.

You will still have regular mammograms on your natural remaining breast, and to check any remaining tissue in your new breast if only part of your breast tissue was removed. If you have had an implant in your natural remaining breast to match the reconstructed breast for size, or an implant after breast-conserving surgery, it may be that not all of your breast may show up in a mammogram. Therefore, it is important to tell the radiographer in advance so that the best method of screening can be used.

All women who have had breast cancer have regular checkups for the first few years, which involve visits to the hospital to be examined for any signs of cancer, and this includes women who have had reconstruction surgery. However, having a breast reconstruction will not increase the chances of your cancer coming back, and most women are very satisfied with their reconstructive surgery and have greater self-confidence as a result of having it done.

Beyond this booklet

Further support from Breast Cancer Care

Free telephone helpline 0808 800 6000 (for Typetalk prefix 18001)

Our helpline provides information and support for anyone affected by breast cancer. Everyone on our helpline either has personal experience of breast cancer or is a breast care nurse. The team comes from a variety of backgrounds, so callers get to talk to someone who understands the issues they're facing.

The team is able to talk about clinical, medical and emotional issues surrounding breast cancer and breast health. Everyone on the helpline has an excellent knowledge of breast cancer issues and receives daily information on new developments. They can talk through the complexities of different treatments to help you understand your options and explain the best way for you to get treatment.

Volunteer support

Many people who have breast cancer find it helpful to talk to someone who has been in a similar situation. Breast Cancer Care's Peer support service puts you in touch with someone who has personal experience of breast cancer and has been trained to listen and offer emotional support. You can talk to someone at any stage - whenever you feel it would help. Call our helpline or visit our website for more information about this free service. You can also contact our centres to access these services (contact details on the inside back cover of this booklet).

Courses and activities

We run courses and activities for people with breast cancer, which aim to provide information and support and give people the chance to meet others in a similar situation. For more information about these events, contact your nearest Breast Cancer Care centre or call our helpline.

Online discussion forums and Live chat

The Breast Cancer Care website hosts discussion forums covering all aspects of the disease and its treatment. This service is available 24 hours a day and allows you to talk to people in a similar situation to you and to share your thoughts and feelings.

All forum users post their messages and responses at any time, however the regular Live chat sessions take place among users who are all logged on at the same time. They are hosted by Breast Cancer Care staff or a clinical specialist and give you the opportunity to discuss anything related to your diagnosis. Visit **www.breastcancercare.org.uk** for more details.

Ask the nurse

This is another service on the Breast Cancer Care website. You can email a question on any breast cancer or breast health issue and our team of specialist nurses will reply promptly. The service is strictly confidential.

Publications

Breast Cancer Care produces a wide range of publications providing information for anyone affected by breast cancer. All of our publications are regularly reviewed by healthcare professionals and people affected by breast cancer. You can order our publications by using our order form, which can be requested from our helpline. All our publications can also be downloaded from our website.

Recommended books

Dr Susan Love's Breast Book

Susan M Love
Da Capo Press, 2005
ISBN 0 7382 0235 5

Breast reconstruction: your choice

Dick Rainsbury and Virginia Straker
Class Publishing, 2008
ISBN 978-1859591970

Cancer organisations

Macmillan Cancer Support

89 Albert Embankment
London SE1 7UQ
Telephone: 020 7840 7840

Macmillan CancerLine: 0808 808 2020
Cancerbackup Helpline: 0808 800 1234
Textphone: 0808 808 0121
Email: cancerline@macmillan.org.uk
Website: www.macmillan.org.uk

Macmillan Cancer Support improves the lives of people affected by cancer by providing practical, medical, emotional and financial support, and campaigning for better cancer care. Its Cancerbackup Helpline team can provide up-to-date information on diagnosis, symptoms, treatments, clinical trials and more. The Macmillan CancerLine provides information and emotional support. Other services include cancer information booklets, Macmillan nurses and a website.

Macmillan also produces a booklet on risk reducing breast surgery which looks in more detail at reconstruction for people who have undergone surgery due to a family history of breast cancer.

Useful addresses

Association of Breast Surgery at BASO

Royal College of Surgeons of England
35-43 Lincoln's Inn Fields
London WC2A 3PE

Telephone: 020 7405 2234
Email: admin@baso.org.uk
Website: www.baso.org.uk

Aims to ensure that future breast surgery practice is based on common standards of competence and performance. It does this through education, training, service improvement and provision of information.

British Association of Plastic, Reconstructive and Aesthetic Surgeons (BAPRAS)

Royal College of Surgeons of England
35-43 Lincoln's Inn Fields
London WC2A 3PE

Telephone: 020 7831 5161
Email: secretariat@bapras.org.uk
Website: www.bapras.co.uk

Works to advance education in all aspects of plastic surgery. It also holds scientific meetings and runs training courses for surgeons. Most plastic surgeons belong to this association. Members have completed training in plastic surgery accredited by the Royal College of Surgeons. Some plastic surgeons are specialist breast reconstruction surgeons.

British Association of Aesthetic Plastic Surgeons (BAAPS)

Royal College of Surgeons of England
35-43 Lincoln's Inn Fields
London WC2A 3PE

Telephone: 020 7405 2234
Email: info@baaps.org.uk
Website: www.baaps.org.uk

This association was established for the development of education in and the practice of aesthetic plastic surgery for the benefit of the public. Members are trained plastic surgeons and on a register maintained by the General Medical Council.

Breast Implant Information Society (BIIS)

Highway Farm
Horsley Road
Cobham
Surrey KT11 3JZ

Telephone: 07041 471225 (calls cost 5p per minute)
Email: info@biis.org
Website: www.biis.org

The BIIS is a non-profit organisation offering independent information and advice about all aspects of breast implant surgery. It operates a telephone helpline, publishes specialised literature, and has a membership scheme and annual newsletter.

Dr Foster

12 Smithfield Street
London EC1A 9LA

Telephone: 020 7332 8800
Email: info@drfoster.co.uk
Website: www.drfoster.co.uk

Service for healthcare professionals and the public that aims to improve access to health and social care information. The website lists the names of surgeons who carry out breast reconstruction surgery; this is not a complete list but may be useful to find the nearest hospital where reconstruction is available (follow the 'Consultants' link and look at the 'Consultant Guide').

General Medical Council

Regent's Place
350 Euston Rd
London NW1 3JN

Telephone: 0845 357 8001
Email: webmaster@gmc-uk.org
Website: www.gmc-uk.org

Holds general and specialist registers of doctors practising in the UK. The registration department can also provide information on specific named doctors free of charge.

Medicines and Healthcare products Regulatory Agency (MHRA)

1 Nine Elms Lane
London SW8 5NQ

Telephone: 020 7084 2000
Email: info@mhra.gsi.gov.uk
Website: www.mhra.gov.uk

Government agency responsible for ensuring that medicines and medical devices work, and are acceptably safe.

The leaflet *Information for women considering breast implants* is available from the MHRA and was last published in 2007.

Would you like more information?

To find out more about Breast Cancer Care and the free services we offer, please fill in your details below and return this slip to:

Breast Cancer Care, FREEPOST RRKZ-ARZY-YCKG, 5-13 Great Suffolk Street, London SE1 0NS

Your details

Name:

Address:

Postcode: Email:

☐ please tick if you are happy to receive emails from us

I am a (please tick)

☐ person who has/who has had breast cancer

☐ friend/relative of someone with breast cancer

☐ healthcare professional

☐ other (please state)

Please complete reverse of page

Please let us know where you got this Breast Cancer Care publication.

Breast Cancer Care will not pass your details to any other organisation or third party.

From time to time we may wish to send you further information on our services and activities.

☐ Please tick here if you don't want to hear from us.

free helpline 0808 800 6000

www.breastcancercare.org.uk

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Breast Cancer Care is committed to equal opportunities and access for all.

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For all breast cancer or breast health concerns call our free, national helpline on **0808 800 6000** (for Typetalk prefix **18001**) or visit **www.breastcancercare.org.uk** Confidentiality is maintained between callers and Breast Cancer Care.

Central Office

Breast Cancer Care
5-13 Great Suffolk Street
London SE1 0NS
Telephone 0845 092 0800
Fax 0845 092 0820
Email info@breastcancercare.org.uk

Centres

London and the South East of England
Telephone 0845 077 1895
Email src@breastcancercare.org.uk

Wales, South West and Central England
Telephone 0845 077 1894
Email cym@breastcancercare.org.uk

East Midlands and the North of England
Telephone 0845 077 1893
Email nrc@breastcancercare.org.uk

Scotland and Northern Ireland
Telephone 0845 077 1892
Email sco@breastcancercare.org.uk

Donations from the public make it possible for us to provide publications like this one free to people affected by breast cancer.

If you would like to make a donation, please send your cheque to:
Breast Cancer Care, RRKZ-ARZY-YCKG,
5-13 Great Suffolk Street, London SE1 0NS.

Or donate via our website at www.breastcancercare.org.uk