MACMILLAN CANCER SUPPORT

Understanding breast reconstruction

"I had a mastectomy and an immediate reconstruction. This was recommended by my consultant, so I did exactly that."

Jazz

About this booklet

This booklet is for anyone who is thinking about having breast reconstruction. It explains what breast reconstruction is and what it involves. It talks about the different options for breast reconstruction.

There is information about the benefits, limitations and risks of each type of surgery. We also talk about some of the physical and emotional issues you may experience, and ways to cope with these.

We have included photographs of women who have had breast reconstruction surgery. This is to help show how a reconstruction may look.

The booklet only gives an overview of breast reconstruction. It is important to talk about it with your surgeon and breast care nurse. Give yourself plenty of time to think about it, to help you decide what is best for you.

How to use this booklet

This booklet is split into sections to help you find what you need. Some parts might not be relevant to your situation. You do not have to read it from start to finish. You can use the contents list on page 3 to help you.

It is fine to skip parts of the booklet. You can always come back to them when you feel ready.

On pages 140 to 146, there are details of other organisations that can help. If you find this booklet helpful, you could pass it on to your family and friends. They may also want information to help them support you.

Quotes

We have included some quotes from women who have had (or considered having) breast reconstruction, which you might find helpful. Some quotes are from Jazz, who is on the front cover of this booklet. She has chosen to share her story with us. To share your experience, visit **macmillan.org.uk/shareyourstory**

For more information

If you have more questions or would like to talk to someone, call the Macmillan Support Line free on **0808 808 00 00**, 7 days a week, 8am to 8pm, or visit **macmillan.org.uk**

If you would prefer to speak to us in another language, interpreters are available. Please tell us, in English, the language you want to use.

If you are deaf or hard of hearing, call us using Relay UK on **18001 0808 808 00 00**, or use the Relay UK app.

We have some information in different languages and formats, including audio, interactive PDFs, easy read, Braille, large print and translations. To order these, visit **macmillan.org.uk/otherformats** or call **0808 808 00 00**.

Contents

Thinking about breast reconstruction

What is breast reconstruction?

Breast reconstruction uses surgery to make a new breast shape after an operation to remove a breast (mastectomy).

Surgery is the first treatment for most people diagnosed with breast cancer. For some people, a mastectomy is recommended instead of breast-conserving surgery. This is when only part of the breast is removed (wide local excision or lumpectomy).

You may be able to have a breast reconstruction at the same time as a mastectomy. This is called an immediate reconstruction (pages 15 to 16). Or you can have it as a second operation months or sometimes years later. This is called a delayed reconstruction (page 17).

Breast reconstruction may not be suitable for everyone. This is because some medical conditions increase the risk of complications during and after surgery. Your surgeon or nurse can tell you more about this.

Breast reconstruction tries to match your reconstructed breast to your other breast as closely as possible. This usually involves more than 1 operation. The first operation creates a breast shape. You may then have operations to improve the appearance of your reconstructed breast.

You may also be offered surgery to your other breast if there are obvious differences between the remaining breast and the reconstructed breast. For example, this could be if the breasts are not the same size or do not look even. This is called symmetry surgery.

The new breast shape can be made with:

- a breast implant (pages 31 to 51)
- tissue taken from another part of your body (pages 53 to 80)
- a combination of both.

Your surgeon will talk to you about the types of reconstruction most suitable for you.

When you have a mastectomy, you may have your nipple removed as part of the operation. If you decide to have a new nipple made, this will usually be a different operation (pages 91 to 93). This is usually a few months after the mastectomy. This gives the reconstructed breast time to settle into its final shape.

If you are having risk-reducing breast surgery, you will have both breasts removed. This called a bilateral mastectomy. We have more information about this in our booklet **Understanding risk-reducing breast surgery** (page 134).

People who have breast-conserving surgery usually do not need breast reconstruction. But if a large area of breast tissue needs to be removed, some reconstructive surgery might be needed to keep the breast shape. If you are unhappy with how the breast looks after breast-conserving surgery, talk to your breast surgeon. There are things that can help.

Making your decision

Most people focus on removing the cancer. It can feel overwhelming to have to make a decision about having a reconstruction as well.

Deciding if and when you want breast reconstruction will depend on your individual situation. Only you know what feels right for you. And it is important you feel happy with your decision. You can discuss it with your surgeon and breast care nurse. You can also talk about it with a family member or friend you trust. You might want to contact an organisation such as Breast Cancer Now (page 140).

Breast reconstruction is available on the NHS. National guidelines say that anyone having a mastectomy should be offered the choice of either immediate or delayed reconstruction. This is unless there is a medical reason why someone cannot have reconstructive surgery.

There are different breast reconstruction options available. The guidelines also say you should have access to all types of breast reconstruction. Some options may not be available at your local hospital. If the option most suitable for you is not available locally, you may need to go to another breast surgery unit. It is important to discuss your options for breast reconstruction before you have a mastectomy. You do not have to make a decision about it at this stage. But it will help the surgeon to plan your surgery.

Should I have breast reconstruction surgery?

There are different reasons someone may choose to have breast reconstruction. It will depend on the person. You may choose to have reconstruction so you do not need to wear a false breast. This is called a breast prosthesis or form. Or you may feel reconstruction will help your confidence and improve how you feel about your body after breast surgery.

You may not want to have additional surgery and decide you feel comfortable wearing a breast prosthesis instead. If this is what you decide, you can talk to your breast care nurse about how to get fitted with a prosthesis and bras you can wear after surgery.

Some people choose not to have reconstruction and not to have a prosthesis. Others may plan to have breast reconstruction but then decide not to. And for some, losing their breast is something they feel they can adapt to in time.

Or you may not feel ready to have breast reconstruction until a while after surgery for breast cancer.

"I decided not to have reconstruction. They gave me a bra with a foam part inside, and I have been completely comfortable with that. I don't think anyone else can tell. "

Jean

Important things to think about

If you decide to have breast reconstruction, you will need to think about when to have it. It may be possible to have it at the same time as your mastectomy. This means after the operation you will have a breast shape straight away.

Other things may also affect your decisions about reconstruction. These may include:

- your general health
- your relationships (pages 128 to 129)
- your commitments and priorities.

It is important to have realistic expectations about breast reconstruction. Your reconstructed breast will not look or feel the same as the breast that has been removed. It may be a slightly different size and shape and will not have as much sensation. It may also not move as well as your natural breast did.

If you are only having 1 breast reconstructed, your surgeon will try to match it to your other breast. But there may be differences in the size, shape or position of the 2 breasts. Most people are pleased with the results of their surgery, but some may be disappointed (page 125).

Breast reconstruction usually involves more than 1 operation. There are usually several months between these operations. The reconstruction process can take 12 to 18 months to complete.

Breast reconstruction does not increase the chance of a cancer developing in the breast, or coming back in the breast (recurrence). Reconstruction does not make it harder for your doctor to diagnose a possible recurrence. They can still check any changes in the breast area.

You should think about any benefits and limitations of breast reconstruction before making your decision.

It may also help to write a list of the advantages and disadvantages of having surgery. Some of these will be more important than others to you, and some may not be important to you at all.

Benefits of reconstruction

- You will look the same in clothes (including underwear) as you did before surgery.
- You will not have to wear a prosthesis or a special bra.
- You will regain your breast shape.
- It can help restore your confidence in yourself and how you think and feel about your body (body image).

Limitations of breast reconstruction

- You will spend more time in hospital.
- It will take longer to recover from your operation.
- You will usually need further minor operations to get the best cosmetic results.
- As with all operations, there can be complications.
- You are unlikely to have much sensation in the new breast.
- You may have scars elsewhere on your body, depending on the type of reconstruction you have.
- You may not be happy with the result.
- You may need to have an operation on your other breast so that both breasts look the same.

“I opted not to have breast reconstruction while I made up my mind. I was looking at all the Macmillan information, trying to work out what all the different possibilities were. I was trying to get my head around it. ”

Eleanor

Deciding when to have breast reconstruction

Reconstruction can be done at the same time as a mastectomy or at a later date.

Immediate reconstruction

You have an immediate reconstruction at the same time as a mastectomy. It is usually possible for the surgeon to leave most of the skin that covers the breasts when they remove the breast tissue. Doctors call this a skin-sparing mastectomy. It leaves less scarring than a delayed reconstruction (page 17). This is because less skin is removed.

During this operation, the surgeon sometimes removes:

- the nipple
- the dark area around the nipple (areola)
- a small circle of skin around the areola.

This depends on how close the cancer is to the nipple.

Sometimes it is possible to leave the nipple in place, attached to the breast skin. Doctors call this a nipple-sparing mastectomy (pages 89 to 90). Sometimes the nipple is removed and then put back on (grafted) to the reconstructed breast – pages 91 to 93.

Benefits of immediate reconstruction

- Immediate reconstruction usually gives a better appearance than delayed reconstruction. This is because it is easier to keep more of the breast skin.
- There is less scarring than with delayed reconstruction.
- You will not be without a breast shape at any time.

Limitations of immediate reconstruction

- Immediate reconstruction involves a longer operation and recovery time than just having the breast removed.
- If you need chemotherapy or radiotherapy after surgery, this could be slightly delayed. For example, this might happen if problems such as infection slow your recovery. This is uncommon.
- Having radiotherapy after breast reconstruction may affect the look of the reconstructed breast. If you need radiotherapy, your doctors may suggest delayed breast reconstruction.
- You may have a slightly longer wait for surgery, especially if 2 teams of surgeons are involved. This is not likely to affect the success of the surgery.

Delayed reconstruction

You can have breast reconstruction after you have recovered from your other treatments. This is called a delayed reconstruction. For example, if you have radiotherapy, you will usually wait about 6 to 12 months before having reconstructive surgery. It can sometimes be longer. This gives the skin on your chest time to recover.

There is no time limit for having a delayed reconstruction. Some people choose to have it years after a mastectomy.

Benefits of delayed reconstruction

- It is usually possible to have a delayed reconstruction at any time. This can even be years after your original surgery to remove cancer.
- Delayed reconstruction will not delay other cancer treatments.
- You have more time to think about whether reconstruction is right for you.
- It gives you time to concentrate on each individual treatment. You can focus on your cancer treatment and think about reconstructive surgery later.

Limitations of delayed reconstruction

- You will not have a breast shape for a period of time.
- The appearance of the reconstructed breast may not be as good as with an immediate reconstruction. You may also have more scarring.
- You will need at least 1 additional operation to reconstruct the breast. This will require a general anaesthetic.

Talking with your surgeon

Breast reconstruction is done by a breast reconstructive surgeon or a plastic surgeon. Breast reconstructive surgeons are sometimes called oncoplastic breast surgeons. They are trained in breast cancer surgery and some types of breast reconstruction. Plastic surgeons usually do more complex breast reconstructions. You may need to travel to a plastic surgery unit.

In some hospitals, 2 surgeons may work together. A breast surgeon removes the breast (mastectomy). Then a reconstructive surgeon or plastic surgeon makes the new breast shape.

A new breast shape can be made:

- with a breast implant (pages 31 to 51)
- by using tissue taken from another part of your body (pages 53 to 80)
- with a combination of an implant and tissue taken from another part of your body.

Your surgeon will advise you on the types of reconstruction that are most suitable for you. They will show you photos of breast reconstruction to give you an idea of how the result may look. There are also photos in this booklet of different types of breast reconstruction.

You can bring a family member or friend to your appointments for support. They can help you remember what was discussed.

Your surgeon or breast care nurse may help you contact others who have already had breast reconstruction so you can talk to them about it. You may also want to discuss breast reconstruction with people on our Online Community. Visit **macmillan.org.uk/community**

"I wanted a double mastectomy and an immediate reconstruction. I started to research options. This was again where I turned to the Macmillan Online Community for help. I decided on permanent expander implants."

Helen

Some questions to ask your surgeons

It usually helps to have a list of questions to ask. Your breast surgeons will be sensitive to your thoughts and feelings about breast reconstruction. It is okay to ask about anything you are concerned about.

Questions for your breast surgeon

- What types of reconstructive surgery would you recommend for me and why?
- What are the benefits, limitations and risks of this type of surgery?
- When is the best time for me to have a reconstruction?
- Where can I have this surgery?
- Who will perform this type of surgery?
- If I need to have radiotherapy, will this affect the reconstruction or type of reconstruction I should have?

Questions for your breast reconstructive surgeon

Here are some extra questions you might like to ask about having reconstructive surgery. You could ask your reconstructive surgeon these:

- What types of reconstruction would be suitable for me?
- What are the risks or complications of the different types of surgery? What are the chances of them happening?
- How long will the operation take?
- How long will I have to wait before I can have the surgery?
- Should I see a plastic surgeon?
- Can I talk to someone who has had this type of operation?

"The surgeon gave me the options and showed pictures. She invited me to meet women who had had those reconstructions."

Nicola

There are also questions you might want to ask your surgeon about their experience. These could include the following:

- What experience do you have in reconstructive surgery?
- How many of these operations do you do each year?
- Will you be doing the operation yourself?
- Are there any 'before and after' pictures I can see of your previous work?

You may also have questions about the immediate and longer-term effects of breast reconstruction. These questions might include the following:

- How long will I be in hospital?
- Where will my scars be and what will they look like?
- After surgery, how long will it take before I can go back to everyday activities?
- What can I expect my reconstructed breast to look and feel like straight after surgery? How about 6 months or 1 year after surgery?
- Will I need any further surgery after having a reconstruction?

You may find the answers to some of these questions in our information. But you should still check them with your surgeon, as there may be slight differences.

Giving your consent

Before you have any operation, your surgeon will explain its aims and what to expect. They will ask you to sign a form giving your permission (consent) for the operation to take place.

Before doing this, you should get as much information as possible about:

- the type of operation and exactly what it involves
- the benefits and possible disadvantages
- any other types of operation that may be suitable for you
- possible complications and any significant risks or side effects.

Breast reconstruction can be complex, so you may need to talk with your surgeon and nurse a few times. It is a good idea to try to have a family member or friend with you to help you to remember what was said.

If there is anything you do not understand, ask your surgeon or nurse to explain it again. They should always give you time to ask questions.

If you are thinking about having a delayed reconstruction, you can take your time to decide on the operation. If you are thinking about having an immediate reconstruction, you may need to make a decision more quickly. But it is still important to be as sure as possible that you are happy with your decision.

Your data and the cancer registry

When you are diagnosed with cancer, some information about you, your diagnosis and your treatment is collected by a cancer registry.

The information is used to help understand cancer in the UK better. This is important for planning and improving health and care services. It can be used to ensure that people living with cancer get the best possible care and support.

Hospitals automatically send information to the cancer registry. There are strict rules about how the information is stored, accessed and used. Information about health is sensitive, so by law it has to be kept under the highest levels of security.

If you have any questions, talk to your doctor or nurse. If you do not want your information included in the registry, you can contact the cancer registry in your country to opt out (page 146).

Different types of breast reconstruction

Preparing for breast reconstruction surgery

You will have a pre-operative assessment before your operation. This will involve having some tests to check your general health and fitness.

Your treatment team will talk to you about having a healthy, balanced diet and keeping physically active in the weeks before surgery. For example, this may mean going for regular walks.

You may be given information about what to bring into hospital, such as:

- comfortable clothes and nightwear with buttons down the front
- a supportive bra.

Smoking

If you smoke, your surgeon will talk to you about giving up smoking before surgery.

You are more likely to develop problems after breast reconstruction if you smoke. Smoking damages blood vessels and increases the chance of having problems with wound healing and recovery.

Your hospital and GP will give you help and support to stop smoking. You can also visit the NHS website for more information (page 143).

Types of breast reconstruction

There are 3 main types of breast reconstruction:

- **Breast implants** (pages 31 to 51). This is when an implant is put under your skin to make a new breast shape. Implants are now more often put in front of the chest muscle. But they may sometimes be put behind the chest muscle.
- **Your own tissue** (flap reconstruction). This is when skin, fat and sometimes muscle are taken from another part of your body to make a new breast shape. Most flap reconstructions use tissue from the tummy (abdomen) – pages 66 to 74. But tissue from the back (pages 58 to 65), buttocks (pages 78 to 80) or thighs (pages 75 to 77) can also be used.
- **Breast implants and your own tissue**. This is a combination of having a breast implant and a flap reconstruction. The surgeon makes a breast shape using an implant and your own tissue taken from another part of your body.

Your surgeon will advise you on the type of reconstruction that is most suitable for you. It will depend on:

- your preference
- your general health
- your body type and the shape and size of your breasts
- whether you have had or are going to have radiotherapy to your chest – your treatment team will explain how this will affect the type of reconstruction and when it might be best to have it
- how much of your breast tissue has already been removed
- how healthy the tissue and skin are on your breasts and on other areas of your body that may be used (donor sites).

We have a table that compares the different types of breast reconstruction on pages 82 to 83.

Reconstruction using breast implants

Breast implants may be used:

- for immediate breast reconstruction
- when both breasts are being reconstructed.

Breast implants can be used to make a breast shape. But they will feel firmer and not move as naturally as breasts reconstructed using your own tissue. This can mean it is more difficult to get a natural shape when only 1 breast is being reconstructed. So implants are often used when both breasts are being reconstructed. This may be the case if you do not have enough tissue to reconstruct both breasts.

The surgeon makes a breast shape by putting an implant either in front of or behind the chest (pectoral) muscle. When an implant is behind the chest muscle, it is called a sub-pectoral implant. With newer surgical techniques, it is now more common for implants to be in front of the chest muscle. This is called a pre-pectoral implant.

Breast implants

Breast implants have a silicone outer cover with silicone gel or salt water (saline) inside.

Silicone gel implants usually feel softer. They can last many years but may need to be replaced at some point in the future. This may be because your body shape changes over time.

Saline implants can sometimes leak. The saline usually only leaks around the implant. It does not cause any harm and is safely absorbed into the body. If it leaks, this can mean the reconstructed breast becomes smaller suddenly and the implant will need to be replaced.

The surface of the implant is usually textured, but some surfaces are smooth. Implants come in a range of sizes. They are either round or shaped like a teardrop. Your surgeon will talk to you about the different types of implants and any potential risks with them (pages 45 to 51).

Reconstruction using an implant can be a one-stage or two-stage procedure.

One-stage procedure

The surgeon puts in either a fixed-size implant or an expander implant. These are permanent implants put in with 1 operation.

Fixed-size implant

The surgeon puts in a permanent silicone implant to create a new breast shape. This can either be in front of or sometimes behind the chest wall muscle (pages 39 to 40).

Surgical mesh

The surgeon may use a surgical mesh or a product called an acellular dermal matrix (ADM). This supports the implant and helps keep it in place. The mesh can be made from animal tissue or synthetic material. Some meshes are made from a material that is absorbed into the body. This is called an absorbable mesh.

Supporting sling

Occasionally, the surgeon may use your own tissue to make a supporting sling for the implant. This is called a dermal sling. This may be used if you have larger breasts that are being reduced in size.

The surgeon places the implant under the chest wall muscle and attaches the supporting tissue to the edge of the chest muscle. This acts as a sling for the lower part of the implant and keeps it in place.

Your surgeon can explain the possible benefits and disadvantages of using a supporting sling.

Expander implant

You may have an expander implant put in at the same time as having a mastectomy. These are also called tissue expander implants. Your surgeon can use an expander implant if your skin and chest wall muscle need to be stretched. An expander implant has an inner chamber that can be injected with saline through a valve (port). This makes the implant expand.

You may have an expander implant if you are having a delayed reconstruction (page 17) and the skin needs to be expanded. Expander implants may also be used when the surgeon does not want to overstretch the skin. For example, if the surgeon is trying to keep the nipple, overstretching the skin can reduce the blood supply to the nipple area. Putting in an expander implant and not fully inflating it helps the blood supply to the nipple while it is healing.

Some surgeons may use these implants if radiotherapy might be needed after reconstruction. This is because expander implants can be deflated during radiotherapy and then reinflated after radiotherapy.

The surgeon may put the expander implant in front of your chest muscle to stretch the skin. Or they may place it behind the chest muscle to stretch the muscle and skin. You will then wait a few weeks for the tissues to heal. After this, the muscle and skin can begin to be stretched to form your new breast shape. This is done by injecting saline into the implants.

Saline injections

Your nurse or doctor injects saline into the implant every 1 to 2 weeks to stretch the area. They do this through a valve under the skin. This may be placed:

- in the underarm area
- under your breast
- on your chest wall.

After each injection, you may feel some aching or tightness in the breast area for 1 or 2 days.

This process continues over several weeks to form your new breast shape.

Expander implants can be temporary or permanent.

Permanent expander implant

Permanent expander implants are sometimes called Becker implants or expanders. They can be left in place when fully expanded. They have an outer chamber of silicone gel and an inner chamber. This inner chamber is gradually filled with saline through a valve to stretch the skin or both the skin and muscle. The nurse or doctor may then remove some saline through the valve to get a more natural breast shape. A surgeon can remove the valve later during a small operation. This may be done under a local or general anaesthetic. The implant remains in place.

Temporary expander implant

A temporary expander implant has a hollow inner chamber that can be injected with saline. It does not have the silicone gel outer chamber that a permanent expander implant has.

The implant is gradually expanded with saline over time and then replaced with a permanent silicone implant. This is often described as a two-stage procedure.

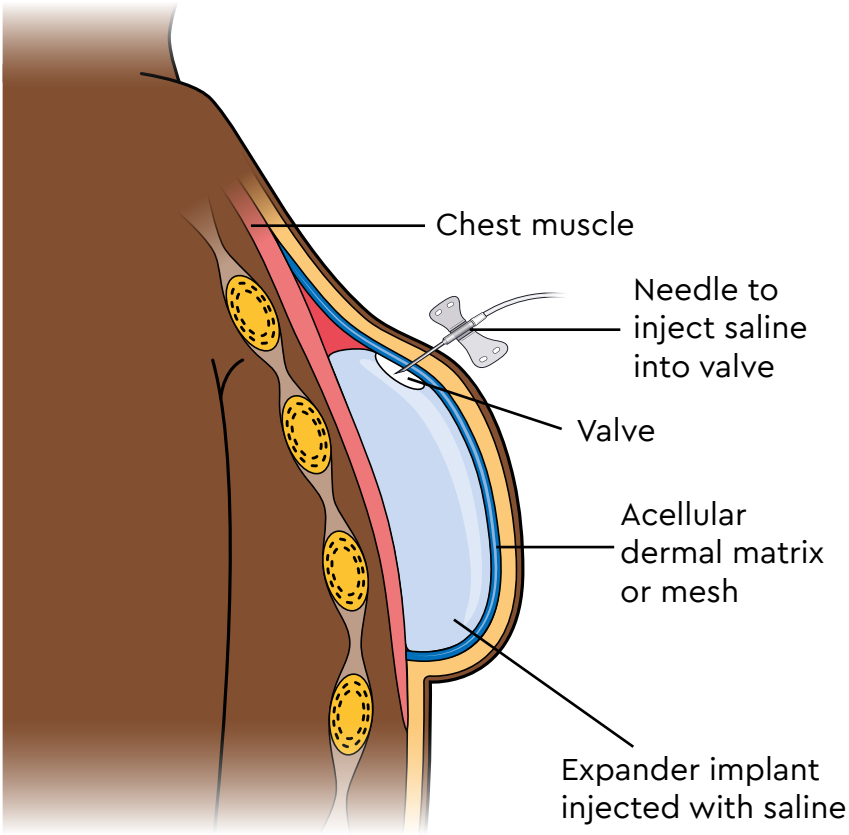
Two-stage procedure

A two-stage procedure involves 2 operations.

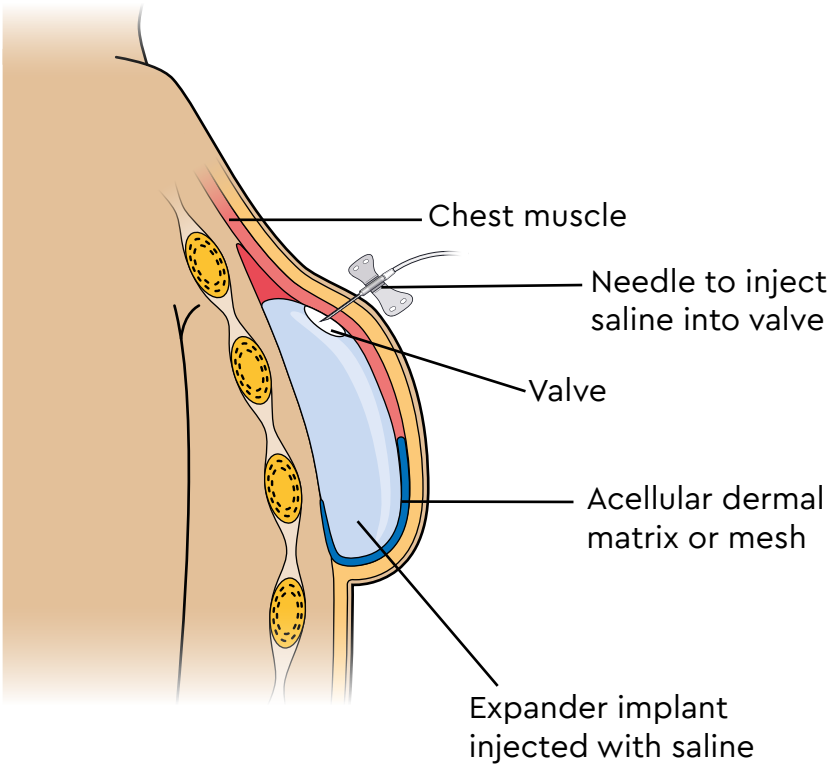
The surgeon puts a temporary expander implant under the skin. This will either be in front the chest muscle or behind it. This stretches the tissues to make room for the permanent breast implant.

A nurse or doctor injects saline into the expander implant through a valve just under the skin of the chest wall (opposite page). This increases the size of the expander implant and stretches the skin, or the skin and the chest muscle, to form the breast shape.

An expander implant with a valve, in front of the chest muscle with an ADM or mesh



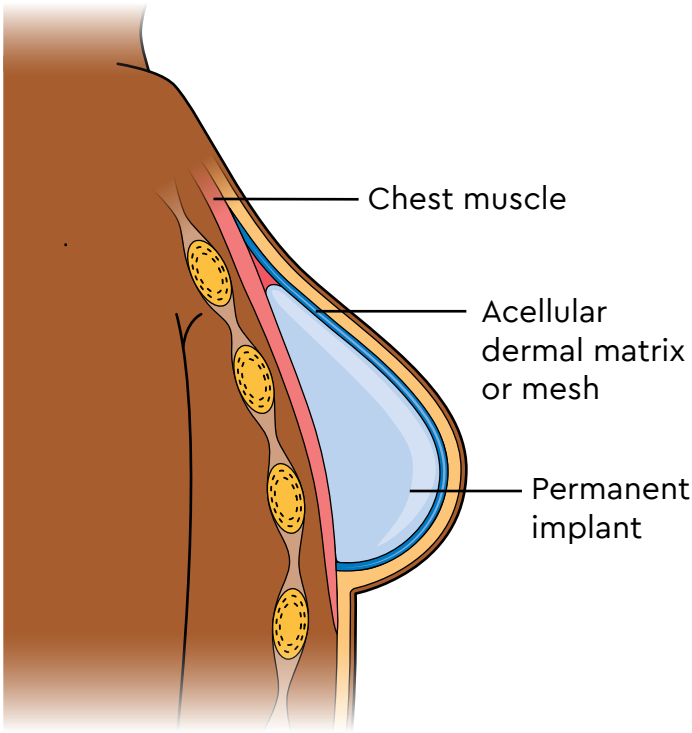
An expander implant with a valve, behind the chest muscle with an ADM or mesh



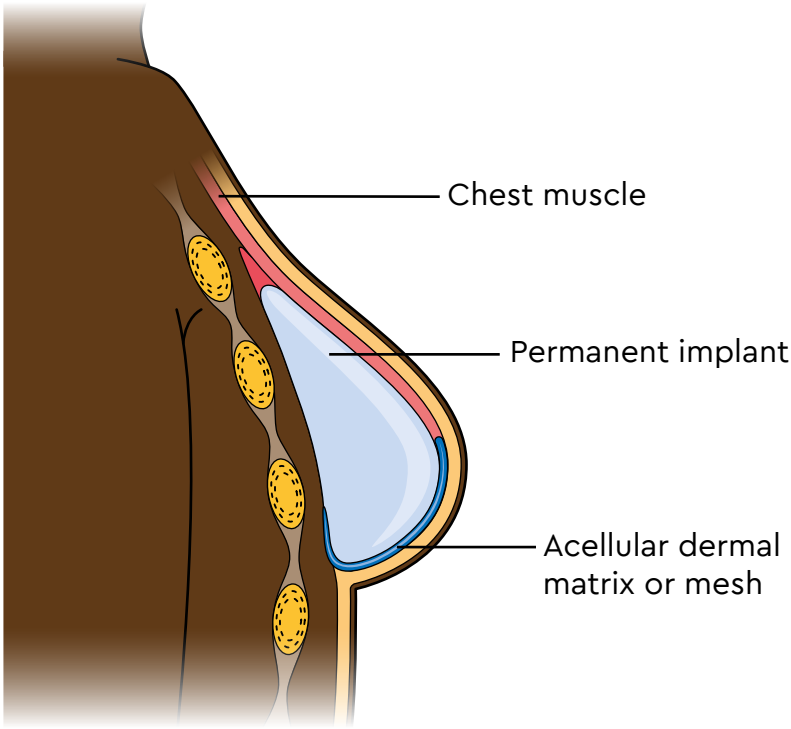
Once the temporary implant expands to the final size, it stays in place for a few months. This allows the skin, or both the skin and chest muscle, to stretch fully. This helps keep the skin stretched. It also reduces the risk of the skin tightening after the implant is removed.

Your surgeon will then remove the expander implant and put in a permanent silicone implant. The implant is put in front of, or sometimes behind, the chest muscle (pages 39 to 40). This gives you your final breast shape.

A permanent implant, in front of the chest muscle with an ADM or mesh

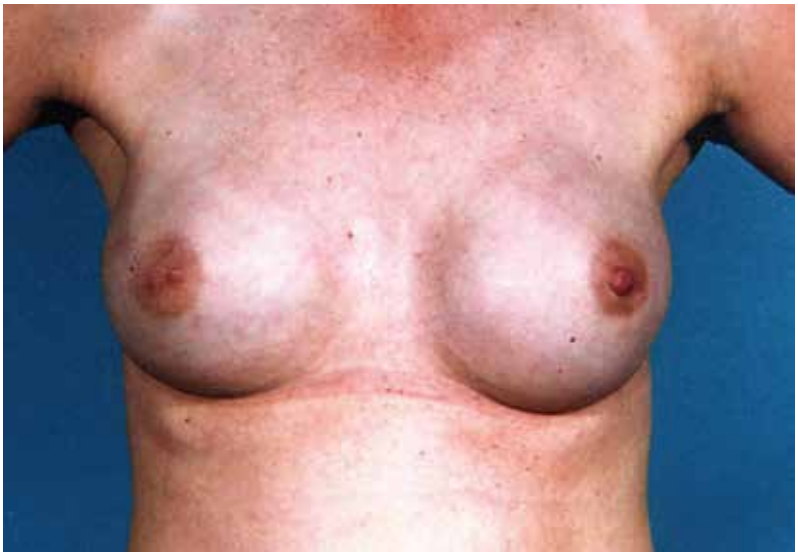


A permanent implant, behind the chest muscle with an ADM or mesh

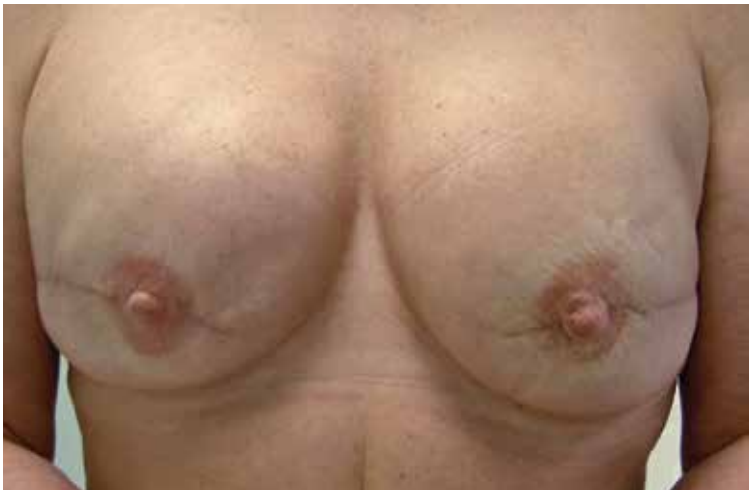


When you have breast implant reconstruction after a diagnosis of breast cancer, you usually only have the breast affected by cancer reconstructed using an implant. The photos on pages 41 and 42 show when implants have been used to reconstruct both breasts.

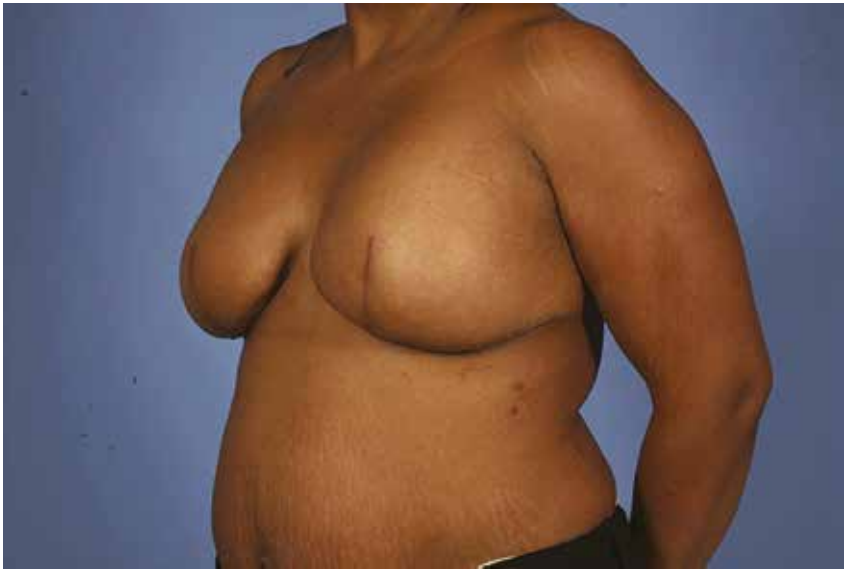
Reconstruction of both breasts with expander implants

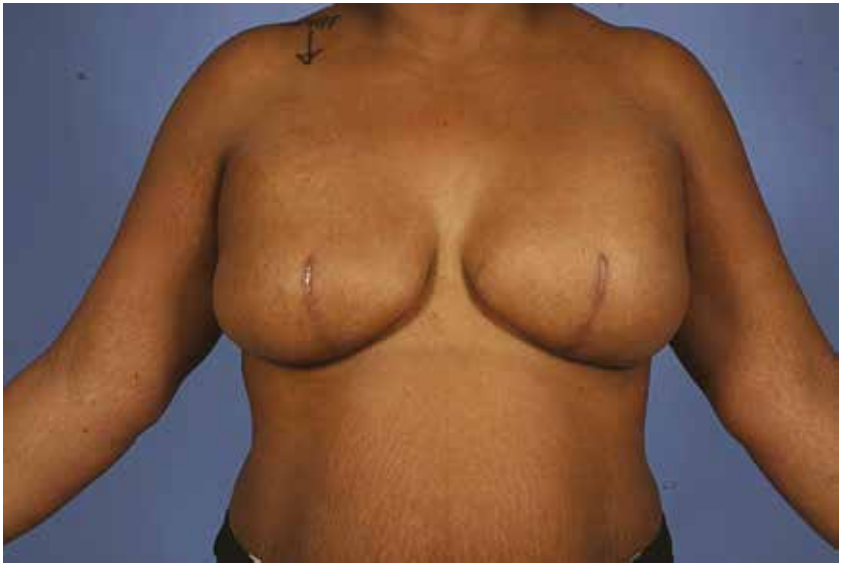


Reconstruction of both breasts with expander implants and nipple reconstruction



Reconstruction of both breasts with expander implants, without nipple reconstruction





What are the benefits?

- Reconstruction with implants is a simpler operation than other types of reconstruction. But it can be more difficult to match the other breast to the breast reconstruction.
- It has a slightly shorter recovery time than other types of breast reconstruction.
- It leaves less scarring on the breast and no scars elsewhere on your body.
- Depending on the size and shape of your natural breasts, it can be a good option. It may also be an option if you are having both breasts reconstructed.

There are more photos of implants in front of and behind the chest muscle on page 90.

What are the limitations?

- You may need several visits to the hospital over a few months for tissue expansion.
- The operation will leave a scar.
- Implants do not feel as soft or as warm as breasts made using your own tissue.
- To get the best result, you usually need more operations. This may be to reposition the implant. Or you may need fat injected over the implant to improve the shape and give a more natural feel. This is called lipomodelling (pages 86 to 88).
- The reconstructed breast is unlikely to have the same droop as the natural breast.
- It can be difficult to match your other breast with an implant. Your natural breast changes over time. It may increase in size and have a droop, but the breast with the implant will not. This may mean that your breasts look less even in the future. You may need surgery to lift or reduce your other breast.
- Breast shape with an implant may also change over time. This is due to scar tissue forming and tightening around the implants. You may need further surgery at some point to improve the appearance.
- You may need surgery to replace an implant if it leaks or if the tissue around the implant tightens (capsular contracture) – pages 46 to 47.
- Most implants are now placed in front of the chest muscle. But if your implants are behind the chest muscle, they may change in shape when the muscle over them tightens (contracts).
- Sometimes you may be able to see a rippling effect through the skin. This is caused by creasing or folds in the implant. Rippling (page 47) is more common if the implant is placed in front of the chest muscle.
- A reconstructed breast has less sensation than a natural breast. It may feel numb.

What are the risks?

With any operation, there are risks, such as infection. There are also some risks specific to implants.

Removal of the implant

Up to 1 in 10 women (10%) need to have an implant removed within the first 3 months after surgery. After 9 months, this increases to 1 in 7 women (15%). This can happen because of wounds not healing properly or an infection.

There are other factors that can increase this risk. Up to 1 in 5 women (20%) need their implant removed if they:

- smoke
- have radiotherapy after a mastectomy and implant reconstruction.

If an implant needs to be removed, you will usually have to wait a few months before surgery to have a new implant put in. During this time, the breast will be flat. The delay is needed to give the tissues time to heal and to treat any infection. You may also need to have lipomodelling before having another implant put in.

The new implant may become infected. Or you may develop further wound-healing problems. The new implant could also develop another tight capsule around it. This means it may also need to be removed. Your surgeon may talk to you about the benefits of having a reconstruction using your own tissue (pages 53 to 80) instead of having the implant replaced.

Infection around the implant

It is rare to have an infection in the tissue around the implant. But if this happens, the implant usually needs to be removed until the infection clears. The implant can be replaced several months later. You will be given antibiotics at the time of your operation to reduce the risk of infection.

If an implant needs to be removed because of infection and is then replaced, the reconstructed breast may not look as good. It is important to follow any advice your treatment team gives you about preventing infection.

Tightening or hardening of tissue around the implant (capsular contracture)

Breast implants are not a natural part of your body. Because of this, your body reacts by forming a 'capsule' or layer of scar tissue around them.

Over a few months, the scar tissue can get smaller (contract) as part of the natural healing process. But sometimes as the capsule contracts, the tissue tightens around the implant. This is called capsular contracture. It can happen any time after having a breast implant operation.

A small amount of capsular contracture is common. But, occasionally, it can be more severe and make the reconstructed breast feel hard and painful. It may also change the shape of the implant.

Severe capsular contracture is more common if you:

- have radiotherapy to the chest
- have an infection in the reconstructed breast
- smoke.

If the contracture is not severe, you may not need treatment. Doctors may treat it by taking fat from another part of your body and injecting it around the implant. This is called lipomodelling (pages 86 to 88). Or you may have an operation to:

- release the capsule (capsulotomy)
- remove some or all of the capsule (capsulectomy) and insert a new implant.

You may choose to have the breast reconstructed with a flap of your own tissue (pages 53 to 80) instead of having the implant replaced.

Rippling of implants

Most surgeons put the implant in front of the chest muscle. This means it is close to the skin. Rippling is when you can see creases in the implant through the skin.

When the implant is behind the chest muscle, it may change in shape. Or it may crease when you move and the muscle contracts.

If you have rippling of your implant, your surgeon may suggest injecting fat under the skin (lipomodelling) to thicken the tissue over the implant. This can reduce the effects of rippling. Your body absorbs up to half (50%) of the fat injected. So you may need to have lipomodelling more than once to get the best results. Sometimes lipomodelling can cause lumpiness under the skin. If this happens, your doctor may arrange a scan to check this.

Damage (rupture) to implants

It is difficult to damage an implant. You can continue with your normal activities, including sports and air travel, without worrying whether it will affect your implant. Implant rupture is now rare. Fewer than 1 in 20 women (5%) will have an implant rupture within 10 years of having firm or solid gel implants.

Occasionally, an implant might split or tear. Most silicone implants contain a firm gel. This is unlikely to leak in large amounts, even if the outer cover is damaged. If this happens, it should not affect your health. But the implant will need to be replaced.

If saline leaks out of an expander implant, it will not cause any harm. But the implant will go flat quickly and will need to be replaced.

You should tell your doctor if you notice a change in the shape or feel of your implant. They may do a scan to check this.

Implants and mammograms

Implants can make mammograms (breast x-rays) more difficult to read. You may need more x-rays to look at all of your breast tissue.

If you have a mastectomy, you will not need to have mammograms of the reconstructed breast. If you have an implant put in after breast-conserving surgery, you still need to have mammograms of that breast. If you decide to have an implant in your other breast to match it with your reconstructed breast, you will still need mammograms of that breast as well.

It is important to tell the person doing the mammogram you have an implant. This is so they can use the best screening method for you.

Safety and silicone breast implants

Quality control

A few years ago, there were concerns about the quality of the silicone used to fill breast implants. This happened because unapproved silicone was found in breast implants made in France by a company called Poly Implant Prostheses (PIP). PIP implants have not been used in the UK since 2010.

Breast implants used in the UK must be approved by the Medicines & Healthcare products Regulatory Agency (MHRA). This organisation is responsible for making sure medical devices, including breast implants, are safe and fit for use.

Since 2016, everyone who has a breast reconstruction using a tissue expander or breast implant in England, Scotland and Wales is automatically recorded on a national registry. If you live in Northern Ireland, you will be asked for your permission (consent) to record this.

This is called the Breast and Cosmetic Implant Registry (BCIR). Registries help find people with implants if any safety concerns are raised. If you are worried about having breast implants, it is important to discuss this with your surgeon before your operation. They will be able to tell you the type of implants they use and who makes them.

Breast implant-associated anaplastic large cell lymphoma (BIA-ALCL)

Anaplastic large cell lymphoma (ALCL) is a very rare type of non-Hodgkin lymphoma that can sometimes affect the tissue around the implant. People with textured breast implants have an increased risk of developing ALCL in the tissue around an implant. This is called breast implant-associated anaplastic large cell lymphoma (BIA-ALCL). It is not breast cancer.

BIA-ALCL usually develops about 7 to 10 years after implant surgery. But it can happen earlier or later than this. The risk of BIA-ALCL is extremely small with implants currently used. Although the risk is thought to be linked to some types of textured implant, there is not enough evidence to be certain. The textured implants thought to be of the highest risk are no longer being used.

BIA-ALCL usually shows up as a swelling or an increase in the size of the breast due to a build-up of fluid. There may also be a lump near the implant.

Early-stage BIA-ALCL can be treated with surgery to remove the implant and the capsule of tissue surrounding it. A non-textured implant can then be put in. If the ALCL spreads outside the capsule, other cancer treatments may be needed. Your surgeon can talk to you about the:

- risk of BIA-ALCL
- risks and benefits of different implants
- most up-to-date recommendations.

Breast implant illness (BII)

Breast implant illness (BII) is a term used by some people who feel they have symptoms linked to their silicone breast implants. BII is not a medical diagnosis. There is currently no evidence to suggest the symptoms reported are linked to the breast implants. Research is continuing to look into this.

Symptoms that have been reported to be related to this condition include:

- tiredness
- joint aches
- depression
- headaches
- hair loss
- rash
- neurological issues.

But these symptoms can have many causes.

If you have symptoms you feel might be because of your implants, contact your doctor. Some people may ask for the implant to be removed. But removing breast implants will not necessarily improve symptoms. About half of people affected (50%) feel their symptoms improve.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Flap reconstruction using your own tissue

Flap reconstruction is a type of breast reconstruction that uses tissue from somewhere else on your body. It is more complex than implant reconstruction (pages 31 to 51). It involves moving a flap of skin, fat and sometimes muscle from another part of your body to your chest wall. This creates a breast shape. The area of the body that the flap is taken from is called the donor site. Most flap reconstructions use tissue from the tummy (abdomen) – pages 66 to 74. Tissue from the back (pages 58 to 65), buttocks (pages 78 to 80) or thighs (pages 75 to 77) can also be used.

You may have reconstruction using your own tissue if enough tissue can be taken from the donor site. It is often used in delayed reconstruction (page 17). It may also be an option if you are having radiotherapy. It is a longer operation than an implant-only reconstruction and has a longer recovery time.

The reconstructed breast needs a good blood supply to keep it healthy. There are 2 ways a surgeon can do this.

Free flap reconstruction

With a free flap reconstruction, the surgeon takes a flap of tissue from another part of your body. They disconnect it from its blood supply and move it to your chest. They then connect it to a new blood supply on the chest. This is complex surgery. It is only done by plastic surgeons in specialist units.

Most breast reconstructions using tissue from the tummy are free flap reconstructions. All reconstructions using tissue from the buttock or thigh are free flap reconstructions.

Pedicled flap reconstruction

With a pedicled flap reconstruction, the surgeon takes a flap of tissue from your back or tummy. They keep the flap connected to its original blood supply. They then tunnel the flap with its blood supply under your skin and out onto your chest.

Reconstructions using tissue from the back are usually pedicled flap reconstructions. Some reconstructions using tissue from the tummy or lower back are pedicled flap reconstructions. These are less common.

Who is it suitable for?

Reconstruction using your own tissue may be suitable if you:

- do not want a breast implant
- have had or need radiotherapy as part of your treatment
- want your breast to have a more natural shape and feel
- have large breasts or breasts with a natural droop and do not want your reconstructed breasts to be smaller
- cannot have an implant or tissue expansion because the chest skin and muscle are too tight.

There may be increased risks with flap reconstructions if you:

- have health problems, such as diabetes
- are very overweight
- smoke.

These risks are more common with free flap operations.

What are the benefits?

- It gives a more natural shape, movement and feel to the reconstructed breast.
- It is suitable for all breast shapes.
- It can create a breast with a more natural droop.
- The reconstructed breast will change as your body changes over time. It may put on weight or lose weight as you do.
- This means the reconstructed breast is more likely to look similar to the other breast over time.
- You may also be less likely to need maintenance breast surgery in the future.
- You can usually avoid having an implant.

What are the limitations?

- It involves having surgery to another part of your body to remove the flap.
- You will have a scar on the part of your body the flap is taken from.
- You may have a patch or circle of skin on the reconstructed breast. This patch of skin is the flap that has come from a different part of your body. Because of this, it may be a different texture and colour from the breast skin. Your breast surgeon will be able to give you more information about this.
- You may have a longer operation, hospital stay and recovery.
- Reconstructed breasts have less sensation than natural breasts. They usually feel numb.

What are the risks?

With any operation, there are risks, such as infection. There are also some specific risks with reconstruction using your own tissue.

Problems with blood supply to the flap

Your surgeon and nurses will check the reconstructed breast regularly for a few days after the operation. This is to make sure the breast has a good blood supply. Most operations are successful. But when a flap of tissue is used for breast reconstruction, there is a small risk that all or part of the flap will not have a good enough blood supply. If there are any signs of a poor blood supply in the first few days after the operation, you may need another operation. This allows the surgeon to check the blood supply. If there is not a good enough blood supply, it may mean the flap will fail and you may need another operation to remove the affected tissue. Your surgeon can explain more about this risk.

Fat necrosis

Fat necrosis is an area of damaged fat cells. It can cause a firm lump in the reconstructed breast. It can happen when fatty tissue does not have a good enough blood supply.

The body can usually absorb small areas of fat necrosis over time. But some people need surgery or liposuction to remove a larger area of fat necrosis. This will improve the appearance of the breast. But it can leave a dent in the reconstructed breast. The appearance can be improved with lipomodelling (pages 86 to 87).

If you feel a lump in your reconstructed breast, you should always get it checked.

Reconstruction using tissue from your back (LD flap)

This is called a latissimus dorsi flap (LD flap). The surgeon uses a muscle called the latissimus dorsi (LD) and some overlying fat and skin from your back. The surgeon tunnels the flap and its blood supply under the skin below your armpit. This creates a pedicled flap (page 54). The LD flap stays attached to the original blood vessels and blood supply. The surgeon then positions it on your chest to make a new breast shape.

Because the LD flap stays attached to the original blood vessels and blood supply, there is a reduced risk of flap failure in the reconstructed breast.

LD flap and implant reconstruction

You can have a combination of LD flap and implant reconstruction. An expander implant is more common in delayed reconstructions (page 17). The implant gives more volume to the breast. The flap covers the implant. This gives the breast a more natural look and feel.

Fat transfer (lipomodelling)

Sometimes surgeons use liposuction to take fat from another part of the body. They then inject this into the muscle when you have your breast reconstruction, to create a reconstructed breast. This is called lipomodelling, lipofilling or fat grafting (pages 86 to 88).

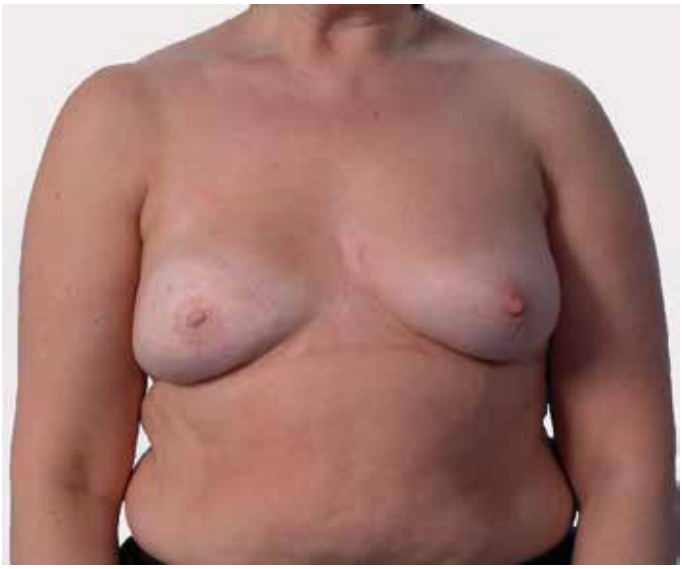
It may be used to create a larger breast shape so an implant is not needed.

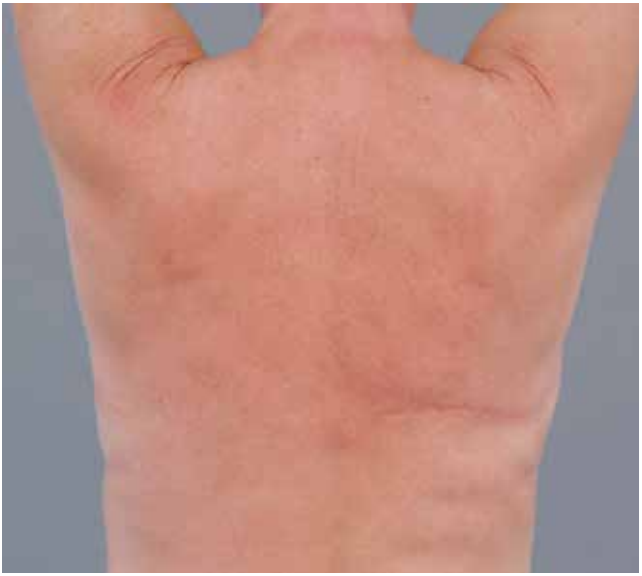
Extended LD flap

Occasionally, the surgeon moves a large amount of fat with the LD muscle. This is called an extended LD flap. It may be done so an implant is not needed.

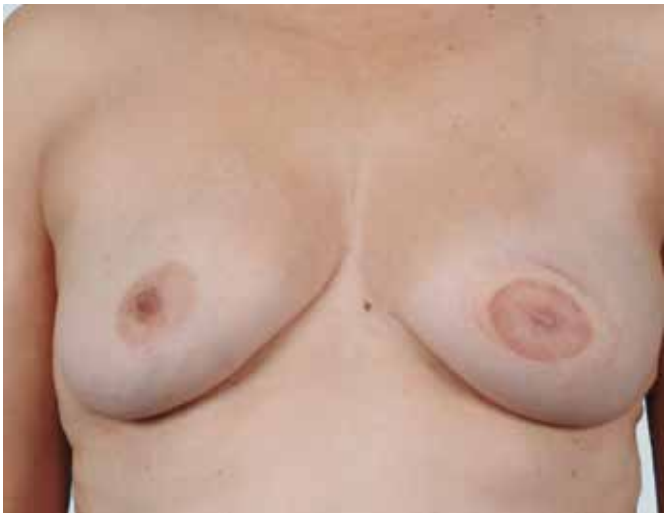
The photos on the next few pages show types of breast reconstruction using an LD flap.

LD flap with nipple prosthesis (right breast), and the scar on the back

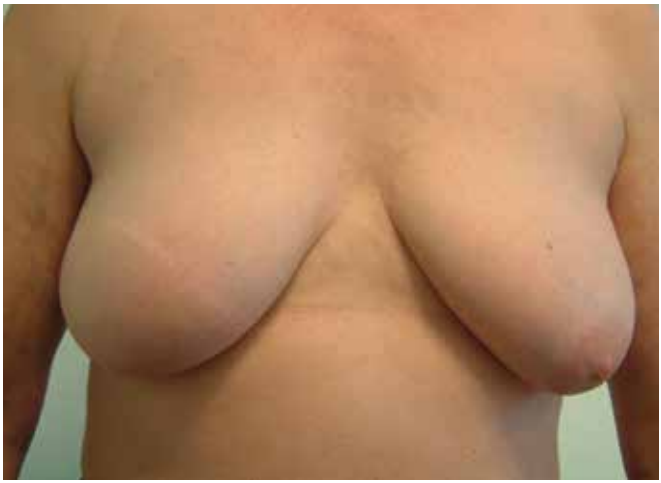




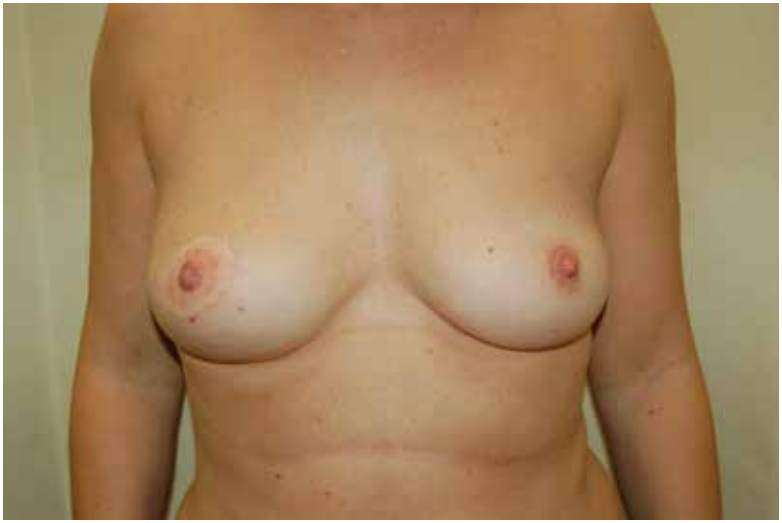
Extended LD flap and nipple reconstruction (left breast)



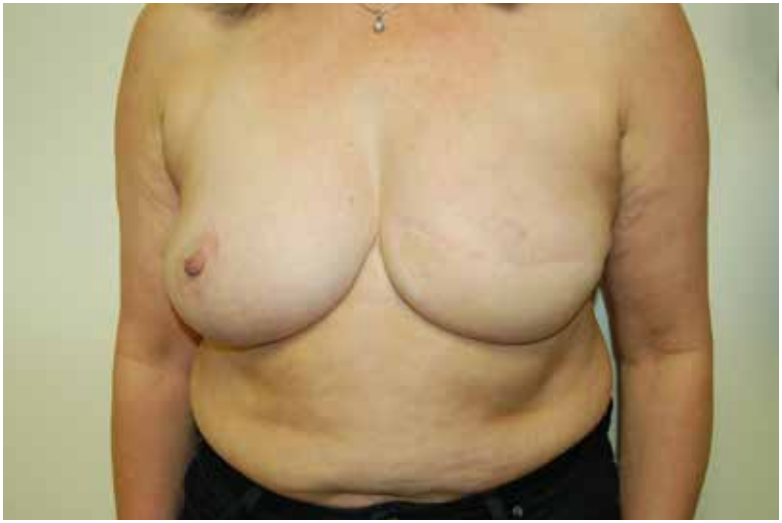
LD flap with implant (right breast)



LD flap with lipomodelling and nipple graft (right breast)



Delayed LD flap with lipomodelling (left breast)



Who is it suitable for?

Reconstruction using tissue from the back is usually suitable for breasts of most sizes. But it may not be suitable if you have large breasts.

It may be an option if other types of flap reconstruction are not suitable. This may be due to:

- your general health or medical conditions
- you not having enough fat tissue to reconstruct from other areas of your body, such as the tummy area.

It may not be suitable if you have a job or hobbies that involve:

- using your arms above shoulder height
- regularly swimming, playing tennis, rowing, heavy lifting or climbing.

What are the limitations?

- You will have a scar on your back and on the reconstructed breast.
- It may take several months for the muscle in your reconstructed breast to feel part of the breast and not the back. The muscle may twitch sometimes.
- If you have larger breasts, you may need an implant or lipomodelling as well as the LD muscle to match the reconstruction to your other breast.
- You may need to have surgery to lift or reduce your natural breast so both breasts are a good match.
- There may be a small bulge under your armpit where the muscle is tunnelled under the skin. You may feel fullness under your arm. This usually improves over time but may not go away completely.
- There may be some tightness in your back after removing the LD muscle.

What are the risks?

With any operation, there are risks, such as infection. There are also some specific risks with this type of reconstruction.

Fluid under the wound (seroma)

This sometimes happens after the operation but usually gets better within a few weeks (page 113).

Numbness and pain

You may have numbness, pain or sensitivity in the area of your back where the tissue was taken from. These symptoms can last for some time and may not go away completely. If this happens, your doctor or nurse can talk to you about how to manage the pain.

Tightness

You may have a feeling of tightness across your back from where the LD muscle was removed. This may last for some time and for some people may not go away completely. It may affect your ability to do certain activities, including some sports. The chance of this happening is higher after an extended LD flap operation. This is because more tissue is taken from the back.

Shoulder weakness

After the operation, you may have some weakness in your back and shoulder. This will improve over time. There are other muscles in the back that can make up for the loss of the LD muscle. You should regain full shoulder strength for most activities 6 to 12 months after surgery. But you may have weakness during some movements. For example, you may have problems:

- pushing your arms down to get out of the bath
- raising your arms above shoulder height
- closing the boot of a car.

You can usually return to daily activities without any problems, including sports such as swimming and tennis. But having LD flap surgery can affect your ability to do some sports, such as:

- rowing
- rock climbing
- cross-country skiing
- high-intensity racket sports.

Reconstruction using tissue from your tummy

The most common breast reconstruction is using tissue from the tummy area (abdomen) along with its blood vessels. This is called a free **DIEP flap** (deep inferior epigastric perforator flap).

The surgeon uses a flap of fat and skin from the tummy area to create a breast shape. But they do not use any muscle. They separate the flap and its blood vessels from your tummy. They then move the flap to the breast area and connect it to the blood vessels in your armpit or chest. This creates a new blood supply. Microvascular surgery is used to join the blood vessels. This technique uses magnification microscopes and specialised surgical instruments to reconnect the small blood vessels.

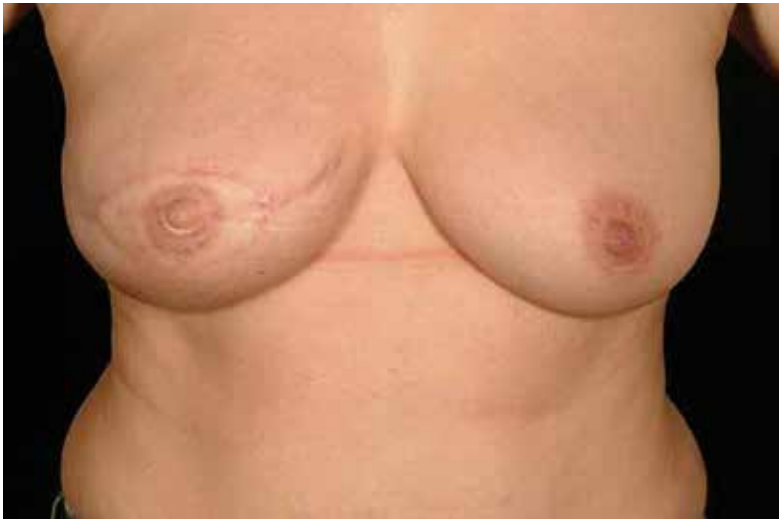
Other types of reconstruction using tissue from the tummy area include the following:

- Free **SIEA flap** (superficial inferior epigastric artery flap). This is similar to the DIEP flap. It uses skin and fat from the lower tummy area only, without any muscle. But the surgeon uses a different blood vessel to create the new blood supply.
- **MS-TRAM flap** (muscle-sparing transverse rectus abdominal muscle flap). The surgeon takes only part of the muscle from your tummy area to create a new breast shape. This is usually done as a free flap operation (page 53).
- **TRAM flap** (transverse rectus abdominus muscle flap). The surgeon uses a muscle, as well as fat and skin, from your tummy area to create a new breast shape. This is usually done as a free flap operation, but may be a pedicled flap (page 54). After removing the muscle, the surgeon may put a mesh in. This is to strengthen the tummy wall and stop a bulge or hernia developing.

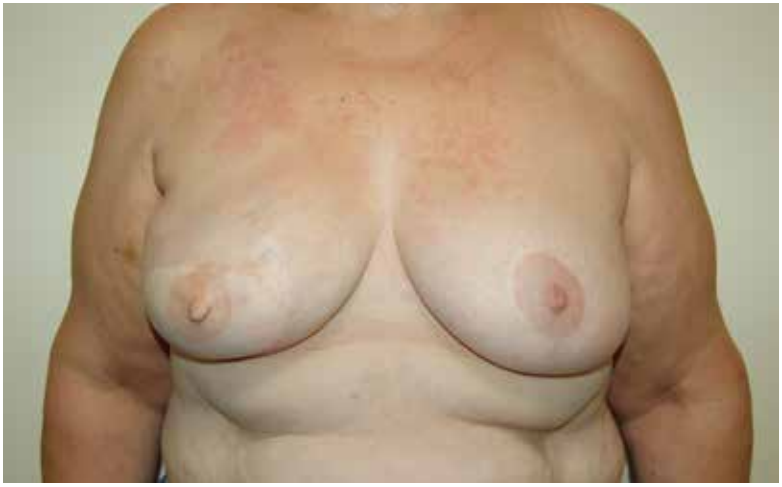
Pedicled flaps are not often used. But they may be an option if you have already had surgery to the tummy area, or if microvascular surgery is not suitable. The belly button is repositioned using tissue from your tummy. You will have a scar around the belly button.

The photos on the next few pages show types of DIEP and SIEA reconstruction.

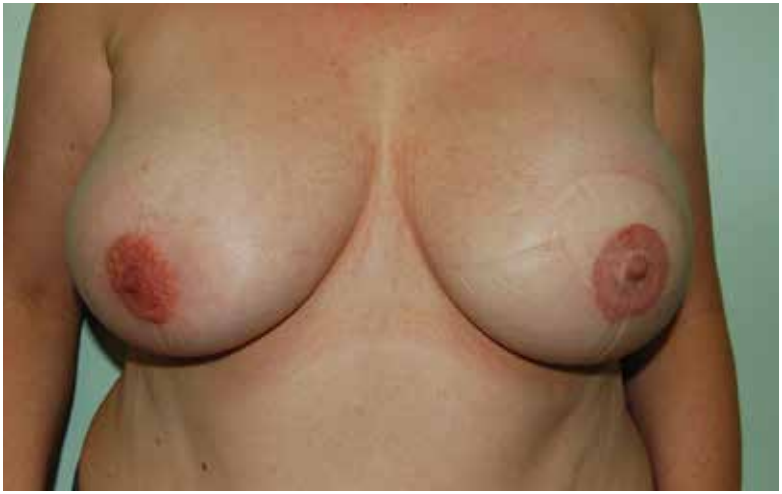
Immediate DIEP flap with nipple reconstruction and tattoo (right breast)



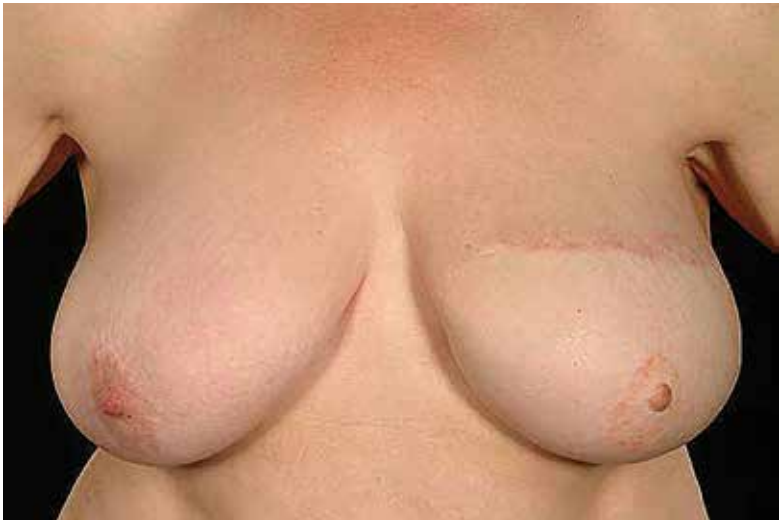
Right breast reconstruction with DIEP flap and left breast reduction



DIEP flap with nipple reconstruction and tattoo (left breast)



Delayed SIEA flap with nipple reconstruction (left breast)



Who is it suitable for?

Breast reconstruction using tissue from the tummy may be suitable:

- for reconstructing breasts of any size
- if you do not want an implant
- if you need to have both breasts reconstructed.

It may not be suitable if you:

- have already had surgery on the tummy area
- have scarring on the tummy area
- are very slim and do not have enough tissue on your tummy
- are planning to get pregnant in the future
- smoke
- have diabetes or a condition that affects blood circulation to the tissue – for example, rheumatoid arthritis or another autoimmune condition.

What are the limitations?

- Breast reconstruction using tissue from the tummy is complex. The surgery can take longer than an operation using tissue from the back.
- It has a slightly higher risk of complications than an operation using tissue from the back.
- You will spend several days in hospital, and it takes several weeks to recover.
- You may have a patch of skin on your breast which is a different skin tone. This patch of skin comes from a different part of your body. Because of this, it may be a different texture and colour from the breast skin. Your breast surgeon will be able to give you information about this.
- You will have a scar across your tummy, below your belly button. This will be from hip to hip. You will also have one around your belly button.
- You may have some loss of sensation (numbness) in the tummy area.
- Most operations using tissue from the tummy are successful. The failure rate is less than 3 in 100 (3%).

"The reconstruction I had was called a DIEP flap. It's where they take tissue from your tummy and they rebuild your breast. I was pleased with the result."

Jazz

What are the benefits?

Breast reconstruction using tissue from the tummy is more widely used than reconstruction using tissue from other parts of the body. It can look more natural than reconstruction with implants (pages 31 to 51).

What are the risks?

With any operation, there are risks, such as infection. There are also some specific risks with this type of reconstruction.

Fluid under the wound (seroma)

After wound drains are taken out, fluid sometimes builds up under the wound. This is called a seroma (page 113). It usually gets better within a few weeks. You may be asked to buy supportive underwear to wear for about 6 weeks after surgery. Wearing this will support your tummy and help reduce swelling and seromas.

Muscle weakness

If you have a TRAM flap (page 67), it uses one of the muscles from the front of the tummy. These muscles form the six-pack. They are important for lifting and physical work. They also work with the back muscles. If they are weakened, you may notice when you sit up from lying down. You may find some sports and physical activities more difficult. A physiotherapist may give you exercises to strengthen your tummy.

A muscle-sparing TRAM flap (MS-TRAM flap) uses only part of the muscle. Because of this, it is less likely to cause muscle weakness than a standard TRAM flap operation. DIEP and SIEA flaps do not use any muscle. This helps keep more strength in the tummy.

Hernia or bulge in the tummy area

If a muscle is used, there is a higher risk of a bulge or hernia developing in the part of the tummy called the abdominal wall.

Sometimes the surgeon will use a mesh to strengthen the abdominal wall. This is to try to stop a bulge or hernia developing. The mesh may be permanent. Or it may be one that dissolves in time.

A DIEP or SIEA flap reduces the risk of a bulge or hernia because no muscle is used. But a bulge can develop after any type of flap surgery that uses tissue from the tummy.

If a hernia develops, it can usually be repaired with an operation.

Reconstruction using tissue from your thigh

This is a free flap operation. It uses skin, fat and sometimes muscle from the upper inner thigh. You may have it when the tummy area (abdomen) cannot be used. The type of operation may vary depending on the part of the inner thigh the surgeon uses. You may have a vertical or diagonal scar.

There are 2 options when using tissue from your thigh. You may have 1 of the following:

- A **TMG flap** (transverse myocutaneous gracilis flap). Or you may have another version of this such as a:
  - TUG flap (transverse upper gracilis flap)
  - LUG flap (L-shaped upper gracilis flap)
  - DUG flap (diagonal upper gracilis flap).
- A **PAP flap** (profunda artery perforator flap). This method does not use muscle.

The plastic surgeon removes tissue from the thigh. They attach the blood vessels that supply the flap to the blood vessels in the chest. This is done using microvascular surgery. It is a technique that uses magnification microscopes and specialised surgical instruments to reconnect the small blood vessels.

Not all hospitals offer this type of reconstruction. So you may need to travel if it is an option for you.

Who is it suitable for?

Reconstruction using tissue from the thigh may be suitable if you:

- have small to medium-size breasts
- have had surgery to the tummy area
- have scarring on the tummy area
- have upper thighs that touch
- are slim.

It may not be suitable if you want large breasts reconstructed.

What are the limitations?

- You will have a scar on your breast and a scar on your inner thigh.
- Your upper thigh may become numb or lose some feeling.
- You may need surgery to lift or reduce your natural breast so both breasts are a good match.
- One thigh may be slightly smaller than the other after surgery.
- Rarely, tissue is taken from both thighs to try to make sure the breast size matches as much as possible.

What are the risks?

With any operation, there are risks, such as infection. There are also some specific risks with this type of reconstruction.

Fluid under the wound (seroma)

Sometimes after wound drains are taken out, fluid builds up under the wound. This is called a seroma (page 113). You may need a dressing, but seromas usually get better within a few weeks.

If a seroma occurs near the thigh wound before it has healed, it may seep through the wound. This may delay healing. If this happens, it can take several weeks or sometimes a few months to fully heal.

Swelling of the leg

You may be asked to wear supportive clothing for up to 6 weeks after the operation. This may include cycling shorts and support (TED) stockings. These will reduce the risk of swelling in the leg and groin area after the operation.

Long-term swelling in the leg is rare. Your surgeon will take care to prevent this. There are fine tubes, called lymph vessels, in the legs. These drain fluid from tissue. If some of these tubes are damaged during the operation, fluid may build up in the lower leg. This fluid build-up is called lymphoedema. Although lymphoedema can be treated, it never goes away completely.

We have more information in our booklet **Understanding lymphoedema** (page 134).

Tightness in the inner thigh

The area around the scar may be flatter than normal and can feel tight. This is because skin, muscle and fat are removed from the inner thigh during a TUG, LUG or DUG flap operation (page 75).

Reconstruction using tissue from your buttock

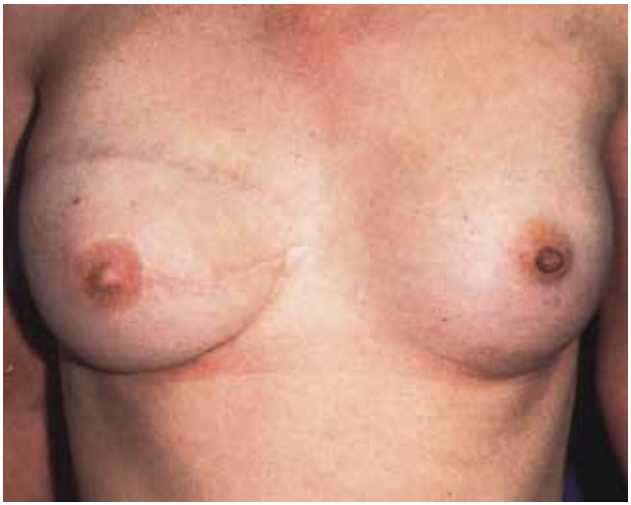
This is a free flap operation. It uses fat and skin taken from your buttock. It may be an option if the tummy area (abdomen) or thigh cannot be used.

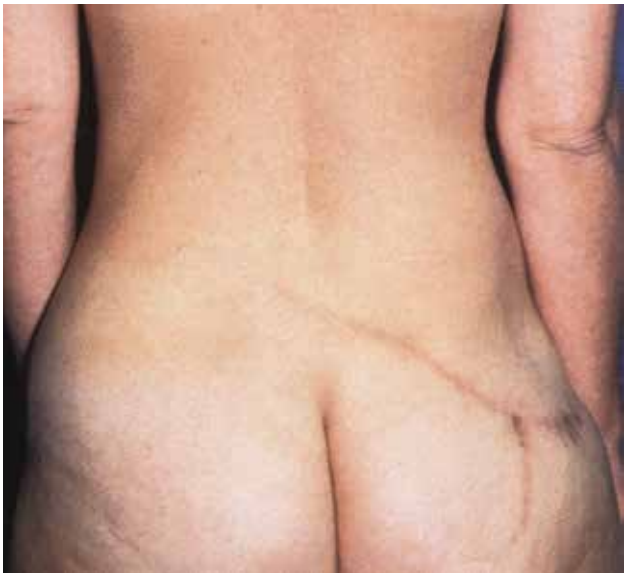
There are 2 operations that use tissue from the buttock:

- Free **SGAP flap** (superior gluteal artery perforator flap). This is when tissue is taken from the upper part of the buttock.
- Free **IGAP flap** (inferior gluteal artery perforator flap). This is when tissue is taken from the lower part of the buttock.

Not all hospitals offer this type of reconstruction. So you may need to travel if it is an option for you.

SGAP flap (right breast), and the scar on the buttock





Who is it suitable for?

Reconstruction using tissue from the buttock may be suitable if you:

- have breasts of any size
- have scarring on the tummy area
- are slim.

What are the limitations?

- You will have a scar on your breast and on your buttock. An SGAP flap leaves a diagonal scar on the upper buttock. This can usually be hidden by underwear with a higher waistband. An IGAP flap scar may be hidden in the crease between the lower buttock and thigh.
- One buttock may be slightly smaller than the other after surgery.
- Tissue in the buttocks is firmer than tissue in the tummy. This means a breast reconstructed with buttock tissue may feel firmer than one made from tummy tissue. It will usually soften over time.
- There is a limit to the amount of tissue that can be taken and the size of breast that can be reconstructed.

Comparing breast reconstruction options

We have included a table over the next 2 pages to help you compare different breast reconstruction surgeries. The table shows what each operation involves. This includes:

- how long you might need to stay in hospital for
- how long your recovery may take
- where you will have scars
- when and why certain operations may not be suitable.

The timings we give are only a guide, and there may be differences between hospitals. Only your surgeon can give you information about exactly what to expect.

The table includes an estimated recovery time after surgery. This is when you can expect to return to doing most activities. But a full recovery can take longer. Your full recovery time will depend on the operation you have and whether there are any problems after surgery.

Always ask your surgeon or breast care nurse if there is anything you are not sure about.

	Breast implants	Back LD flaps	Tummy SIEA or DIEP flaps
Will I need an implant?	Yes	Implants may be placed behind the flap.	No
Average length of surgery	1½ to 2½ hours with 2 surgeons 4 hours with 1 surgeon	3 to 6 hours	4 to 6 hours
Time in hospital	1 to 3 days	3 to 5 days	3 to 7 days
Recovery time	4 to 6 weeks	6 to 8 weeks	6 to 12 weeks
Scars	Scars on breasts only.	Scars on breasts and back.	Scars on breasts and from hip to hip, near the bikini line and around the belly button.
Effects on muscles	Very little or no change in muscle strength.	May cause slight shoulder weakness. LD muscles in breasts may twitch.	Risk of weakness in tummy muscles. Mesh is often used to strengthen them.
Things to consider	May give a less natural shape and feel than your own tissue. You may need further surgery to replace an implant if problems develop. You may have higher risk of complications if you smoke, are overweight or have health problems such as diabetes.	May not be suitable if you need to regularly use your arms above shoulder height. May affect your ability to do sports such as climbing, high-impact racket sports, or swimming.	May not be suitable if you are very slim or have scars on your tummy from previous surgery. You may have higher risk of complications if you smoke, are very overweight or have health problems such as diabetes.
If you are having radiotherapy treatment after surgery	Wound-healing problems may delay start time of radiotherapy. You may have a higher risk of: • capsular contracture • the implant needing to be removed • a poor cosmetic appearance • wound-healing problems.	Wound-healing problems may delay start time of radiotherapy. You may have a higher risk of: • fat necrosis.	Wound-healing problems may delay start time of radiotherapy. You may have a higher risk of: • fat necrosis • poor blood supply to the flap, causing partial flap failure.

	Tummy TRAM and MS-TRAM flaps	Buttock SGAP or IGAP flaps	Thigh TMG or PAP flaps
	No	No	Implants rarely used.
	4 to 6 hours	4 to 6 hours	4 to 6 hours
	3 to 7 days	3 to 7 days	3 to 7 days
	4 to 12 weeks	6 to 12 weeks	6 to 12 weeks
	Scars on breasts and from hip to hip, near the bikini line and around the belly button.	Scars on breasts and scar on upper buttocks (SGAP) or in the creases under lower buttocks (IGAP).	Scars on breasts and inner thighs.
	Low risk of weakness in tummy muscles. Mesh may be used to strengthen and support the muscle.	No change in muscle strength. Mesh may be used to strengthen and support the muscle.	No change in muscle strength.
	May not be suitable if you are very slim or have scars on your tummy from previous surgery. You may have higher risk of complications if you smoke, are very overweight or have health problems such as diabetes.	You may have higher risk of complications if you smoke, are very overweight or have health problems such as diabetes. There is a small risk of nerve damage causing pain or numbness at the back of the leg.	You may have higher risk of complications if you smoke, are very overweight or have health problems such as diabetes. There is a small risk of lymphoedema (long-term swelling) in lower leg.
	Wound-healing problems may delay start time of radiotherapy. You may have a higher risk of: • fat necrosis • poor blood supply to the flap, causing partial flap failure.	Wound-healing problems may delay start time of radiotherapy. You may have a higher risk of: • fat necrosis • poor blood supply to the flap, causing partial flap failure.	Wound-healing problems may delay start time of radiotherapy. You may have a higher risk of: • fat necrosis • poor blood supply to the flap, causing partial flap failure.

Improving the final look and shape

Fat transfer (lipomodelling)

After breast reconstruction, there may be dents or unevenness in the outline (contour) of the new breast. This may improve over a few months. But if it still looks uneven, your surgeon can inject fat into your breast to improve the look. Fat is usually taken by liposuction from the front of your thighs or your tummy. Transferring fat to the breast in this way is called lipomodelling. It is also called lipofilling, fat transfer or grafting.

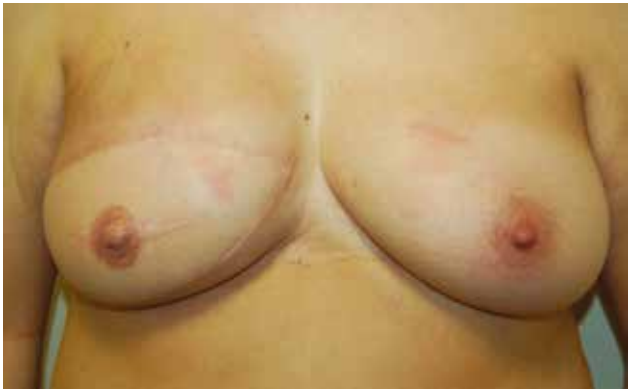
After reconstruction with an implant (pages 31 to 51), you may have lipomodelling to make the reconstructed breast look and feel more natural. You may also have it to cover the effect of any rippling (page 47). Lipomodelling may make a breast reconstructed with an implant feel warmer to touch.

Surgeons can also use lipomodelling to enlarge reconstructed breasts.

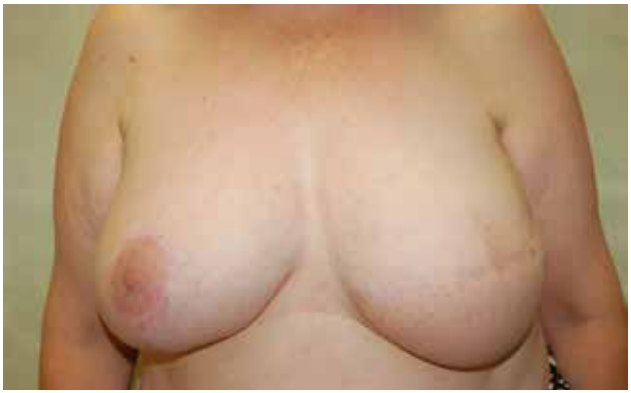
Lipomodelling may be recommended if you have an implant removed. It can help to thicken the tissues before the implant is replaced.

Some people have lipomodelling before breast reconstruction. If you have a mastectomy and radiotherapy, lipomodelling can improve the skin before reconstruction.

Delayed LD flap with lipomodelling after radiotherapy (right breast)



Delayed LD flap after a mastectomy and radiotherapy with lipomodelling (left breast)



You usually do not need to stay overnight in hospital for lipomodelling. This means you can go home the same day. You usually have a general anaesthetic, but it can sometimes be done with a local anaesthetic to numb the area. The area where the fat is taken from is likely to be bruised, sore or numb afterwards. This will get better within a few weeks.

If you have lipomodelling many times, you may get uneven areas where the fat is taken from. If this happens, let your surgeon know. They may be able to make the affected areas look more even. This may not be available on the NHS.

About half (50%) of the fat injected into the breast will be absorbed into the body. After the operation, you will be advised whether to wear a supportive bra or not. You may be told to wear supportive underwear to reduce swelling and bruising in the areas the fat is taken from. You should avoid heavy exercise. This will help reduce fat loss from the breast reconstruction.

Fat injections usually need to be repeated a few times. This is because of the fat loss from the breast reconstruction. Injecting fat more than once also helps to smooth out any uneven areas.

You do not usually have lipomodelling until the reconstructed breast has fully healed. This usually takes about 6 to 12 months. Your reconstructive surgeon can give you more information and explain the risks and benefits of lipomodelling.

The nipple

Nipple-sparing breast reconstruction

The nipple is usually removed as part of a mastectomy. But it may be possible to keep it when having an immediate reconstruction (page 15). This is called a nipple-sparing breast reconstruction. It is usually possible if:

- the risk of the nipple or surrounding tissue containing cancer cells is very low
- you have a suitable breast shape.

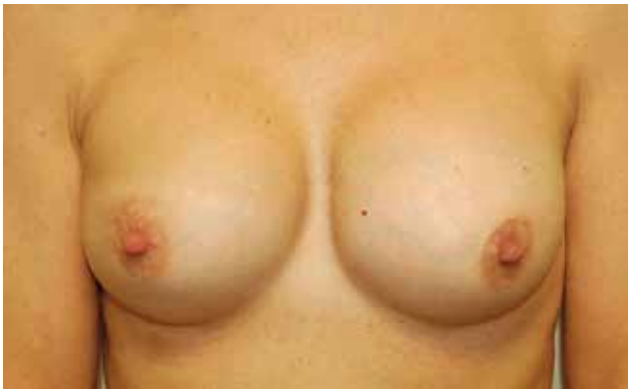
There are 2 ways a surgeon may be able to keep the nipple during a mastectomy:

- The nipple is left attached to the skin of the breasts and the breast tissue that lies under the skin is removed.
- The nipple is removed alone or along with the surrounding darker skin (areola). It is then reattached (grafted) onto the reconstructed breast.

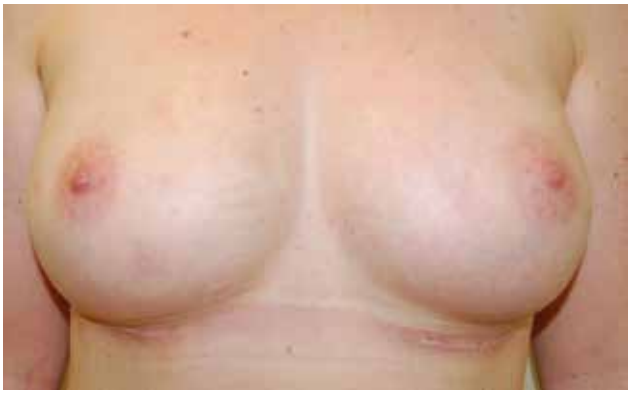
Sometimes the nipple needs to be removed in the weeks after breast reconstruction. This may happen if there are cancer cells found in the tissue removed from near the nipple. It may also happen if the blood supply to the nipple is not good enough and the nipple tissue dies.

Implant reconstruction after double (bilateral) nipple-sparing mastectomy

The implants are in front of the muscle.



The implants are behind the muscle.



Nipple reconstruction

If your nipple is removed as part of your surgery, you will usually be offered nipple reconstruction. This sometimes happens at the same time as breast reconstruction. But it is usually some time afterwards. This delay lets the reconstructed breast settle into its final shape. The surgeon can then position the nipple accurately.

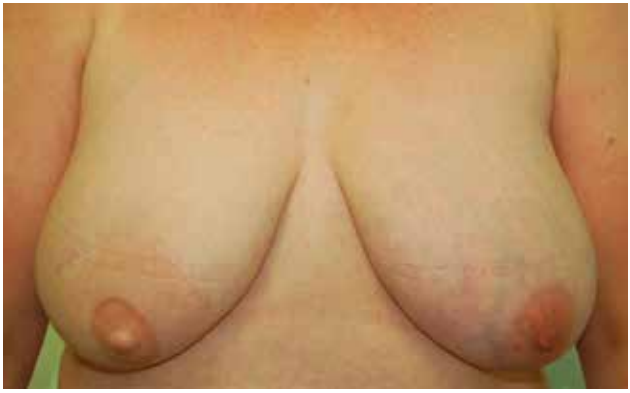
The time between operations for breast and nipple reconstruction may vary. It is usually about 4 to 6 months, but it may be longer.

You usually have nipple reconstruction under a local anaesthetic. But you may have a general anaesthetic. You can go home the same day.

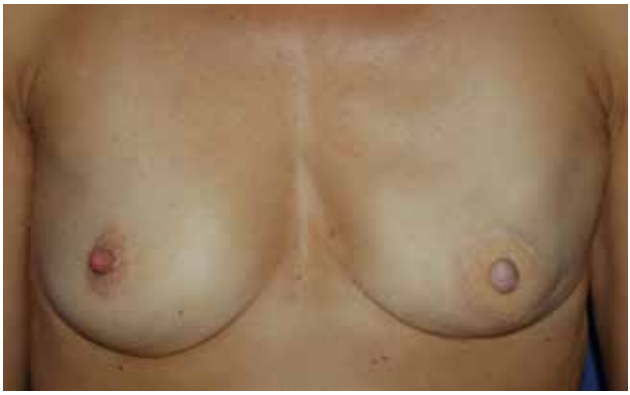
Your nipple shape may be reconstructed in 2 ways:

- **Using a skin flap**. The surgeon folds skin onto your reconstructed breast into a nipple shape. They make it bigger than normal. This is because the reconstructed nipple will shrink and may flatten with time.
- **Using a nipple-sharing graft**. The surgeon takes part of the nipple from your natural breast and places it on your reconstructed breast.

LD flap with implant and nipple reconstruction (right breast)



LD flap reconstruction and nipple graft (left breast)



When you go home, you will have a dressing over the nipple area. This will be removed when you have a follow-up appointment. Your nursing team will advise you about this.

A reconstructed nipple does not react to temperature changes or touch. It does not have the same sensation as a natural nipple and is likely to be numb. It may also not be the same colour as a natural nipple.

The reconstructed nipple needs a good blood supply from the tissue of the reconstructed breast. If the blood supply is poor, the nipple reconstruction may not be successful.

Nipple and areola tattooing

If you have a new nipple made, you can have it and the area around it tattooed to look a more natural colour. This is sometimes called micropigmentation.

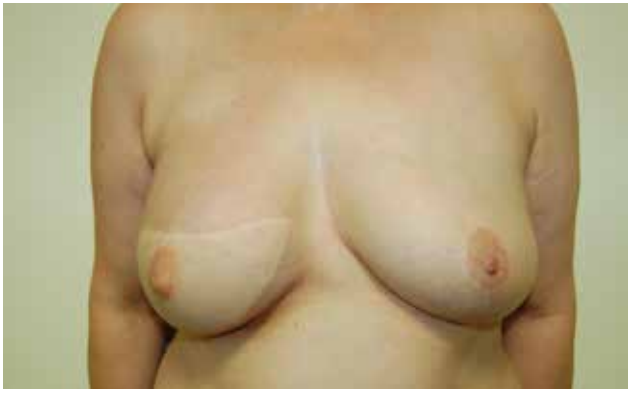
This can be done to match the colour of the nipple and areola of your other breast. Sometimes the other nipple is also tattooed to ensure they match.

A reconstructed breast does not have the same sensation as a natural breast. Most people do not feel any discomfort when the tattooing is being done. If you have feeling in the nipple area, you can be given local anaesthetic cream to numb it.

A tattooing session usually takes 30 to 40 minutes. It may need to be done more than once to give the best result. The tattoo usually lasts about 18 months to 2 years.

Some hospitals offer three-dimensional (3D) tattooing. This can create the appearance of a nipple and areola without nipple reconstruction. The area is tattooed in different shades to create a 3D appearance. Nipple tattooing is usually done in the hospital outpatient department.

Delayed LD flap with nipple reconstruction and tattoo (right breast)



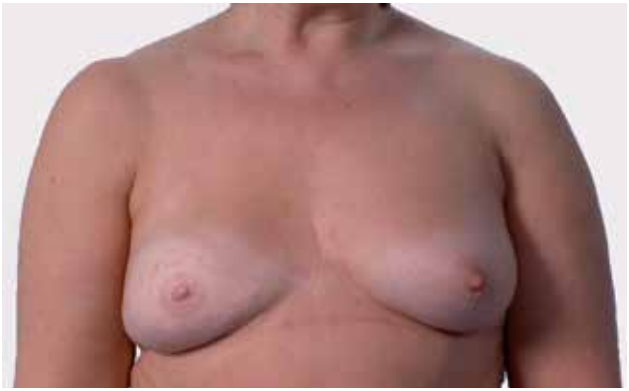
Nipple prosthesis

If you do not want to have nipple reconstruction or tattooing, you may choose to have a silicone nipple (nipple prothesis). You can attach this to your reconstructed breast. You fix the nipple to your breast with special adhesive. It can stay in place for up to 3 months.

Ready-made nipple prostheses come in different shades and sizes. You can usually find a good match with your other nipple.

You can also get custom-made nipple prostheses to match your other nipple. This may involve having a mould made of the nipple on your other breast. Colours are then added to the nipple prostheses to match your other nipple as closely as possible. This procedure is only available in some hospitals.

Nipple prosthesis on the right breast



Surgery to the other breast

During breast reconstruction, surgeons try to match the size and shape of the reconstructed breast to your other breast. This is not always possible. They may suggest you have an operation on your other breast, so they match. This is called symmetry surgery.

You usually have a second operation some months later. But sometimes you have it at the same time as a mastectomy and breast reconstruction.

Surgery to the other breast may involve the following:

- **Breast reduction** – this may be needed if your natural breast is larger than the reconstructed breast. The surgeon can make it smaller and change its shape to match.
- **Breast lifting and reshaping** (mastopexy) – if your natural breast sits lower than the reconstructed breast, it can be lifted and reshaped.
- **Breast enlargement** (augmentation) – this can be done if your reconstructed breast is larger than your other breast and you prefer the larger breast. The natural breast can be made bigger using a silicone implant. This can sometimes be done with a breast lift.

Surgery to your other breast will cause some scarring. This should fade with time. Some operations, such as repositioning the nipple, may lead to reduced sensation or loss of sensation in the nipple.

Reconstruction after breast-conserving surgery

You do not usually need breast reconstruction after an operation to remove part of your breast (breast-conserving surgery). But if you have a large amount of breast tissue removed you may be offered reconstructive surgery. This can improve the appearance of your breasts or make them look more even. It can prevent problems developing with the appearance of the breast at a later stage.

Breast-conserving surgery and partial breast reconstruction can be done as:

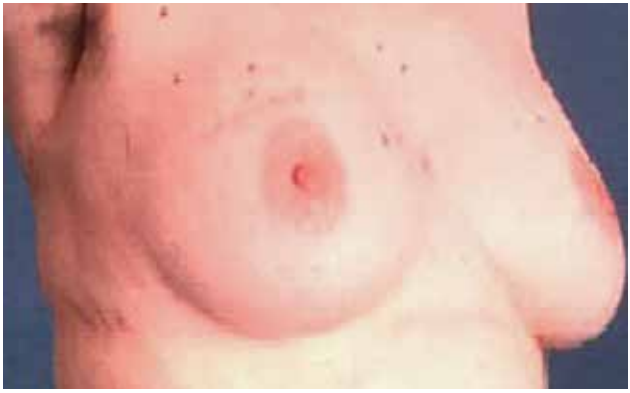
- 1 operation (immediate reconstruction) – page 15
- 2 separate operations (delayed reconstruction) – page 17.

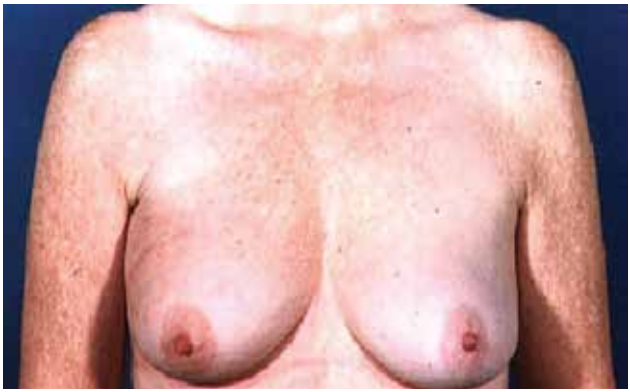
As with any breast cancer operation, it is important to be sure all the cancer has been removed from the breast. The tissue removed will be carefully checked. If you have immediate reconstruction, and these checks show there may be some remaining cancer cells in the breast, you may need more surgery.

Possible operations to improve how the breasts look after breast-conserving surgery include:

- breast reshaping (mastopexy)
- partial breast reconstruction using your own tissue (mini-flap or local flap reconstruction) – this is called a TDAP flap or LICAP flap (page 102)
- lipomodelling (fat transfer) – this is used to increase the size of the treated breast and to fill any dents (pages 86 to 88).

LD mini-flap reconstructions





Breast reduction and reshaping

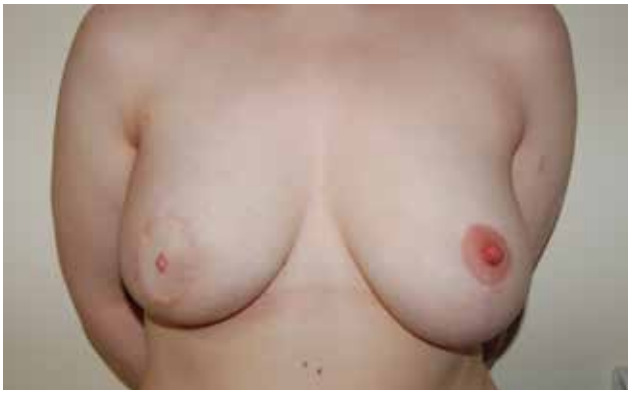
Breast reduction and reshaping may be an option if you have larger breasts and need to have part of your breast removed for cancer treatment.

After the cancer is removed, the remaining breast tissue is reshaped to create a smaller breast. This is called a therapeutic mammoplasty. You can have surgery to make your other breast smaller so your breasts match. This is usually done at the same time. But it may be done as a second operation.

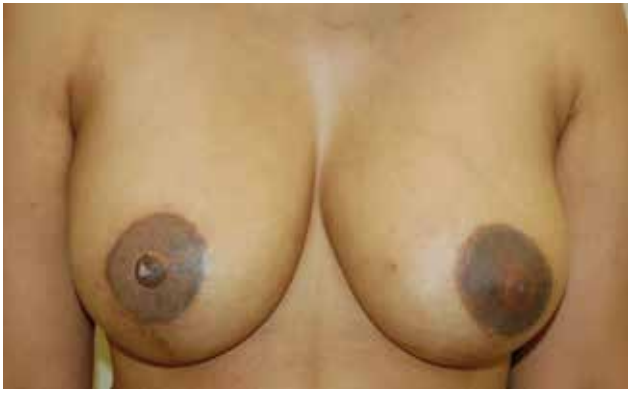
Breast reduction and reshaping can do the following:

- allow those with larger cancers or with large areas of DCIS (ductal carcinoma in situ) to have breast-conserving surgery
- increase the chance of removing the cancer completely in the first operation, compared with a standard lumpectomy (wide local excision)
- reduce problems, such as changes to breast size – for example, when the breast reduces in size after radiotherapy
- treat certain problems, such as shoulder and back pain, which are common in those who have larger breasts.

Right LD flap reconstruction with lipomodelling and nipple graft, and left breast reduction



Right LD flap reconstruction with lipomodelling and nipple graft, and left breast reduction



Breast volume replacement

Another option is for the surgeon to put more tissue into the treated breast. This is called a breast volume replacement. This can be done by using a local flap of tissue from another part of the body such as a:

- **LICAP flap** (lateral intercostal perforator artery flap), which is more commonly used
- **TDAP flap** (thoracodorsal artery perforator flap), which is used less often.

It can also be done with lipomodelling (pages 86 to 88).

These procedures are only available in some hospitals. So you may be referred to another hospital that has a plastic surgery department.

They are done by a surgeon that specialises in breast cancer and plastic surgery (oncoplastic breast surgeon).

After your operation and recovery

Recovery after your operation

Your breast care nurse will give you advice and support before and after surgery to help your recovery.

After your operation

Drips and drains

When you wake up from your operation, you may have a drip (infusion) into a vein in the back of your hand or your arm. This will be removed when you are able to drink enough.

If you have reconstruction using free flaps (page 53), you will also have a catheter to drain urine (pee) from your bladder. This will be taken out once you can get up and move around.

There may be drainage tubes coming out of the wounds. These will be attached to a small container. This collects any excess blood or body fluid. A nurse will remove the tubes and container a few days after the operation. Or these may be removed after you go home.

Wounds

Straight after surgery, your wounds may be covered with dressings or sticky plastic strips. You will wear these until the wounds have healed.

Once you are moving around, your surgeon or nurse will tell you whether you should keep the area dry. They will let you know when you can gently shower the wounds with clean water. They will also tell you if and when your stitches need to be removed. The stitches may be soluble. This means they will dissolve and not need to be removed by a doctor or nurse.

Reconstruction using your own tissue

If you have breast reconstruction using your own tissue (pages 53 to 80), the reconstructed breast will need to be kept warm for the first few hours after the operation. Warmth improves blood flow to the tissue.

You may have a special blanket called a Bair Hugger™, which lets warm air flow over you. Or you may have thick gauze pads over the breasts. The tissue flaps will be checked frequently for the first 24 to 48 hours. This is to make sure they have a good blood supply.

Swelling and bruising

Your reconstructed breast will be swollen to begin with. The swelling will reduce over a few weeks but may take longer to fully settle.

Some people may have some general post-surgery swelling in their body, hands and feet. This will start to go down after couple of days.

Bruising to the breasts and donor site is very common after the operation. It usually goes away within 3 weeks.

Pain or discomfort

After any type of operation, you will have some pain or discomfort. You will be given painkillers to keep you comfortable. After the operation, you may have these as an injection or through a pump you control yourself. These will be replaced by tablets or syrup as you start to eat and drink. Make sure you ask for painkillers if you need them. This will help you recover more quickly.

Before you go home, the nurses will give you medicines to take at home while the area continues to heal. They will explain how to take them.

Changes in sensation

You will usually have some numbness or pins and needles across your chest or reconstructed breast. If you have a tissue flap (pages 53 to 80), you may also have numbness under your upper arms and around the donor site. Some people may notice a change in how materials such as lace feel against their skin.

These sensations improve over months or sometimes years. But it is common to have some numbness that will not go away. Most people adjust to this over time.

Constipation

Constipation can be common after surgery. It means you are not able to pass stools (poo) as often as you normally do. It can become difficult or painful. Here are some tips that may help:

- Drink at least 2 litres (3½ pints) of fluids each day.
- Eat high-fibre foods, such as fruit, vegetables and wholemeal bread.
- Do regular gentle exercise, like going for short walks.

Some painkillers can cause constipation. You may need to take medicine called laxatives to help. Your doctor can prescribe these for you. Or you can get them from your local pharmacy.

Wearing a bra

You may be advised to wear a bra to support your reconstructed breast. To begin with, you will need to wear a soft, supportive bra without underwires. This will be more comfortable. A front-fastening bra can be easier to take on and off. Ask your breast care nurse for advice.

If you have reconstruction with an implant (pages 31 to 51), you may be given a Velcro® band to wear for several weeks. This is called a stabiliser band. It sits on top of the implant and helps make sure it stays in the correct position. You should wear this day and night.

Exercises

Your physiotherapist, breast care nurse or surgeon will show you exercises to do. At first, you may have some discomfort when you move your arm. But it is important to continue to use your arm and do the exercises you are given. You will also have specific exercises to do if you have surgery to another part of your body, such as your tummy.

“I still have a full range of movement in my left arm. This is thanks to the regular exercises recommended by the physiotherapist after my surgery and in the months following. ”

Brenda

Going home

Your surgical team will let you know how long you can expect to be in hospital for after your operation. This will depend on:

- the type of surgery you have
- whether you have immediate or delayed reconstruction.

If you have a breast implant, you may be in hospital for up to 2 nights. After an operation using a tissue flap, you may be in hospital for up to 7 nights.

At home

When you first get home, it is a good idea to have someone around who can help you. You will probably feel tired for the first 1 to 2 weeks. At home, you should gradually increase your level of activity.

Avoid housework such as vacuuming. This might put strain on the muscles in the chest and under the arm or any other muscles operated on. Do light tasks to begin with and slowly build up from there. Do not move or lift anything heavy until your surgeon says it is okay. Avoid lifting babies or children.

Possible complications after surgery

Most of the possible complications after surgery can be treated. But there can sometimes be more serious or long-term problems. Smoking, being overweight or having diabetes can increase this risk.

Bruising and bleeding

Sometimes blood may collect in a reconstructed breast or donor site. This is called a haematoma. It is most likely to happen in the first 24 hours after surgery. It can cause swelling and pain. If you have a wound drain, this will usually collect any excess blood. If the haematoma gets worse, you may need an operation to stop the bleeding and remove it.

Blood clots

Surgery and bed rest increase the risk of developing a blood clot in the legs. This is called deep vein thrombosis (DVT). Straight after surgery, you may notice you have something around your lower legs which pumps air up and down. This helps keep your blood flowing and prevents blood clots while you are on the bed.

You will usually be given compression stockings to wear to try to prevent DVT. You will be encouraged to move around as soon as possible after the operation. You may also be given blood-thinning injections for a few days after the operation.

Fluid under the wound (seroma)

Sometimes after wound drains are taken out, fluid builds up under the wound. This is called a seroma.

Seromas are usually absorbed back into the body. If this happens, it may settle on its own. But you may need to have the fluid removed. A surgeon or nurse can do this with a small needle and syringe. The fluid can build up again, so it may need to be removed more than once.

Delays in wound healing

Wounds usually heal within 6 weeks. But sometimes wound healing can take longer. This may be because of infection. Or there may not be a good enough blood supply to the wound.

Smoking, radiotherapy or being very overweight can delay wound healing. Stopping smoking and eating a healthy, balanced diet with enough protein and vitamin C help tissues heal.

We have more information about stopping smoking on our website. Visit **macmillan.org.uk/stop-smoking**

Infection

When you go home after your operation, you will be told how to check your wounds regularly. Tell your breast care nurse or surgeon straight away if you have any signs of infection, such as:

- heat, redness, pain, swelling or a change in colour over the breast, around the scar, or both
- fluid coming from the wound
- a temperature above 38°C (100.4°F)
- feeling shivery and shaky
- feeling generally unwell.

Your nurse or surgeon will look at the wound and may take a swab to send for testing. If you have implants, you may need to go to the hospital for observation. Your doctor may give you antibiotics into the vein to treat an infection.

If you are having chemotherapy

Chemotherapy reduces the number of white blood cells in your blood. This makes you more likely to get an infection. If you have immediate reconstruction (page 15), your doctors will wait until your breast has healed before starting chemotherapy. This is to reduce the risk of infection.

Contact the chemotherapy team straight away if you feel unwell or have any signs of infection in your breast or elsewhere after starting chemotherapy. Your chemotherapy nurse will tell you about the signs of infection to look for.

If you are having radiotherapy

If you are having immediate reconstruction and need to have radiotherapy to the chest, there is a higher risk of certain complications. This can depend on the type of reconstruction.

Wound-healing problems

If there are problems with wound healing, this might delay radiotherapy. Having radiotherapy to the chest can also affect wound healing.

Your doctor can tell you more about possible complications of breast surgery. They can answer any questions you may have. They may also be able to show you some photos of what some of the possible complications may look like.

Problems with blood supply to the flap

There is a small risk that radiotherapy could affect blood supply to the flap. If there is not a good enough blood supply, it may mean part of the tissue flap will be unsuccessful. This is called partial flap loss. If this happens, you may need another operation to remove the affected tissue. Having radiotherapy to the chest after a breast reconstruction may increase the risk of this happening. Your surgeon can explain more about this risk.

Fat necrosis

If you have radiotherapy to the chest after reconstruction using your own tissue (pages 53 to 80), there is an increased risk of developing a fat necrosis. Fat necrosis is an area of damaged fat cells that can cause a firm lump in the reconstructed breast. It can happen when fatty tissue does not have a good enough blood supply.

Capsular contracture

When you have an implant reconstruction (pages 31 to 51), your body forms fibrous (hard) tissue around the implant. This is called a capsule. For some people, the capsule contracts and the tissue tightens around the implant. This is called capsular contracture (pages 46 to 47).

Having some capsular contracture is quite common. But, occasionally, more severe capsular contracture can happen. You have a greater risk of this if you have an implant reconstruction and also have radiotherapy to the chest.

Possible long-term effects

There are possible long-term side effects of breast reconstruction surgery. These can last for a longer period of time. Some side effects may not go away completely.

Raised, thickened scars

Occasionally, tissue along the scars may thicken and turn red. This makes scars wider and look raised above the skin. These are called keloid scars.

If you have any concerns about your scars, talk to your nurse or surgeon. They can check the scars are healing. If there is a problem, they can give you treatment to help.

Keloid scars may be:

- thicker
- more raised
- larger than the original scar.

These are more common if you have black or brown skin. Sometimes keloid scars run in families.

Chronic pain

Pain usually gets better in the weeks after surgery. For some people, pain may continue for months or even years after the operation. Pain may be:

- along the scar
- along the chest wall
- around the shoulder or upper arm
- in the area the flap was taken from.

Pain may be caused by nerve damage and can improve over time.

Pain that continues for a long time is called chronic pain. There are several different causes of chronic pain.

If you have pain that does not improve, tell your breast surgeon. They can find out the cause or recommend ways to help.

Depending on the cause of the pain, there are different ways to manage it. You may be given painkillers. If you have nerve pain, there are painkillers that help with this. Some people are referred to a physiotherapist to find out if there are any exercises that may help. Or you may be referred to a pain clinic. These are clinics that specialise in managing pain. Some people find certain complementary therapies help with pain. We have more information in our booklet **Cancer and complementary therapies** (page 134).

In some situations, lipomodelling has been found to help with chronic pain, when it is done more than once. Lipomodelling may also help with the tight feeling some people have after having a reconstruction using tissue from the back (pages 58 to 65).

It is also important to wear a bra that fits well. Your breast care nurse can tell you more about making sure you are wearing the right bra.

Shoulder and abdominal weakness

If you have reconstructive surgery using your own tissue, you may have some shoulder or tummy area (abdominal) weakness. This will depend on the type of surgery you have. You can be referred to a physiotherapist to help find ways to manage this.

Recovering at home

You will need time to recover after breast reconstruction. It will take time to adjust to the changes.

Adjusting to the change in your body

You will need time to adjust to the change in your body and to see the reconstructed breast as your own. Looking at and touching your reconstructed breast will help you get used to it. Try to build up the amount of times you look at and feel your breast over time.

If you find this difficult or are avoiding looking at your breast, it is important to talk to someone. Your healthcare team can give you extra support if you need it. We have more information about coping with changes to your body image in our booklet **Body image and cancer** (page 134).

Sex

It is usually fine to have sex after your operation. But it is important you feel comfortable when having sex. This could be a few weeks after your operation, but it may take longer. Ask your surgeon or breast care nurse whether there is anything you need to be careful about.

We have more information on relationships, sex and intimacy after breast surgery on pages 128 to 129.

Looking after your wounds and scars

Your wounds may feel itchy after your operation. Try not to scratch the healing skin. The itching will get better as the wounds heal. It usually takes about 6 weeks for wounds to heal fully.

Once your wounds have healed, most surgeons recommend you massage the scars:

- over your reconstructed breast
- at the donor site, if you have one.

Do this with body oil or moisturiser at least once a day. Massaging along the length of the scars helps stop them sticking to tissue underneath. It can also help soften your scars. Your surgeon or breast care nurse can tell you what they recommend and show you how much pressure to use.

After your operation, scars will be firm and may be slightly raised. If you have light or pale skin, the scars will be red. If you have brown or black skin, they will be darker.

It can take 18 months to 2 years for scars to settle and fade. Tell your doctor or breast care nurse if:

- the scars remain red and raised
- you are worried about how your scars are healing.

There are specific scar treatments that can help the scars settle and fade. If you have keloid scars (page 117), they may be more noticeable for longer.

It is very important to protect your scars from the sun. Use a sun cream with a high sun protection factor (SPF). This should be at least SPF 50 for any area of scarring exposed to the sun. You may be told to do this for up to 2 years.

Work

When you return to work depends on:

- the type of work you do
- the type of operation you have.

If your job does not involve heavy manual work, you may be able to go back to work sooner. You are likely to feel more tired than usual for a while after surgery. You may also find it difficult to concentrate fully at first. This should improve over time.

We have more information about work and cancer on our website. Visit **macmillan.org.uk/work-and-cancer**

Driving

You can usually start driving again:

- once you can use the gear stick and handbrake
- when you feel comfortable and confident enough to do an emergency stop and move the steering wheel suddenly if necessary.

You are usually able to drive within a few weeks after surgery. But some people may find it takes longer. Your surgeon or nurse can advise you on this. Insurance companies usually have their own guidelines about when you can drive again after an operation. Check with your insurance company to make sure you are covered.

You can discuss any worries you have about driving after your surgery with the Driver and Vehicle Licensing Agency (DVLA) if you live in England, Scotland or Wales. Visit **gov.uk/contact-the-dvla**

If you live in Northern Ireland, contact the Driver and Vehicle Agency (DVA). Visit **nidirect.gov.uk/information-and-services/motoring**

“It took about 8 months to make friends with my new boobs. But, finally, I accepted them and they became part of me and who I am now. ”

Helen

" My doctor suggested I try counselling, which I did. I realised I'm never going to be that person I was before, I'm going to be a new normal. I got used to the idea and this is my new normal, the new me. "

Jazz

If you are not happy with the results

The way you feel about your breast reconstruction may depend on your own expectations. Make sure you discuss this with your surgeon before you decide to have surgery.

It takes several months for the breasts to settle into their final shape. This means the way you feel about how they look may change over time. It can take up to 2 years for:

- swelling to settle
- scars to fully heal
- redness to fade.

If you have concerns about your reconstructed breast, talk to your surgeon or breast care nurse. It usually takes more than 1 operation to get a good match with your natural breast. Your surgeon may be able to offer you another operation to improve the result. If you are still unhappy after talking with your surgeon, you can ask to speak to another surgeon for a second opinion.

What you think is a successful breast reconstruction may be different to your surgeon. Before considering another surgery, it may be worth taking time to understand how you feel about changes to your body caused by surgery and reconstruction. A psychologist or counsellor can help you to do this. This may help you decide what feels right for you. For some people, this is more helpful than having another operation. If you think this might be helpful, you can ask your specialist or GP to make a referral for you.

Mammograms and checking your breasts

Mammograms

You will not usually need to have mammograms of the reconstructed breast after a mastectomy. You will be offered regular mammograms of the other breast. If you have breast-conserving surgery followed by breast reconstruction, you will continue to have mammograms on that breast.

Breast implants may hide part of the breast during a mammogram. But experts believe that mammograms are still useful to check breast tissue that covers the implant. Your doctor or breast care nurse will also tell you how to check for signs the cancer might have come back (recurrence).

Checking your breasts

You cannot develop breast cancer in any fat or muscle moved into your breast from another part of your body. But there is a small chance of breast cancer developing in any breast tissue left under the skin or in the skin left behind. So it is important to continue checking your natural breast and your reconstructed breast for any abnormal areas or changes. Your doctor will also regularly examine your breasts after your reconstruction.

It may take time to get used to the look and feel of your reconstructed breast. Ask your nurse to show you how to check your breasts. They can also give you leaflets to remind you what to do.

Things to look out for include:

- breast tissue that feels different – for example, harder or tighter
- a change in the appearance or shape of a breast
- a change in the skin's texture – for example, puckering, dimpling, a rash or thickening
- a lump or lumpy area you can feel in the breast or armpit
- a change in the appearance or colour of the breast
- a rash or change along the scar line
- swelling of the upper arm
- discharge from the nipple if it was not removed
- a rash or swelling on the nipple or the areola if it was not removed
- pain or discomfort.

These changes may not be caused by cancer. But it is important to tell your nurse or doctor if you find anything that worries you. They will examine you and arrange tests to check for anything unusual. These can include an ultrasound, MRI scan or biopsy.

We have more information about these scans and mammograms on our website. Visit **macmillan.org.uk/tests-scans**

Relationships, sex and intimacy

Having breast surgery may affect your sex life and the way you think and feel about your body (your body image). Usually, this improves with time.

Breast reconstruction will create the shape of a breast, but sensation in the breast and nipple will not be the same as before. If you were previously aroused by having your breasts touched, your sexual arousal may be affected. It may take time to adjust, but it is still possible to enjoy a fulfilling sex life.

It is important to take things at your own pace.

If you have other treatment for breast cancer, this might also affect your sex life. If you are having sexual difficulties that are not improving, help is available. You can get sex counselling through Relate (page 144). Or ask your doctor to refer you to a sex counsellor. You can also talk to your breast care nurse about this.

We also have more information in our booklets **Body image and cancer** and **Cancer and your sex life**.

You can order our booklets and leaflets for free.
Visit **orders.macmillan.org.uk** or call **0808 808 00 00**.

If you have a partner

There may be a period of adjustment for you both. It may take time to feel comfortable talking about your surgery and showing your partner your reconstructed breast. You may feel nervous about your partner's reaction.

The surgery may affect how you feel and think about yourself sexually. Your partner may be worried about touching the reconstructed breast because they think they may hurt you. You may find talking to each other and sharing your feelings and fears can help you both.

Even if you do not feel like having sex, there are other sensual and affectionate ways of showing how much you care for someone. Some examples of this include cuddles, kisses and massages.

It might help to spend time being close and intimate without having sex. Sometimes this can lead to sex. But it is also a way to build trust and confidence together.

If you are not in a relationship

You may worry about what a new partner might think about your surgery. You may be unsure what to tell a new partner. It is your decision how, when and what you tell them. Usually, talking openly with each other can have a positive effect on your relationship. It can make you feel more comfortable with each other.

Emotional effects

Breast reconstruction can cause many different emotions and feelings. Many people who have this surgery are pleased with the result. But they may still have feelings of loss for their previous appearance and health.

You may have concerns about how you see and feel about your body. At first, your reconstructed breast might not really feel like part of you. It is normal to take time to adjust to the change in your breast shape and the way the reconstructed breast feels.

If you have concerns about your body image that do not improve, talk to your breast care nurse about how you feel. Many people and organisations (pages 140 to 145) can help you talk about and deal with your feelings.

If you are struggling to adjust emotionally, you can ask to be referred to psychologist or counsellor. We also have more information in our booklet **How are you feeling? The emotional effects of cancer**.

You can order our booklets and leaflets for free.
Visit **orders.macmillan.org.uk** or call **0808 808 00 00**.

"Doctors can give you a booklet and explain what's going to happen. But they can't give their own personal experience. The support group gives you the opportunity to talk to others who have been there. They can fill in all those gaps you want answered."

Beverley

Further information

About our information

We provide expert, up-to-date information about cancer. And all our information is free for everyone.

Order what you need

You may want to order more booklets or leaflets like this one. Visit **orders.macmillan.org.uk** or call us on **0808 808 00 00**.

We have booklets about different cancer types, treatments and side effects. We also have information about work, financial issues, diet, life after cancer treatment and information for carers, family and friends.

Online information

All our information is also available online at **macmillan.org.uk/information-and-support** You can also find videos featuring stories from people affected by cancer, and information from health and social care professionals.

Other formats

We also provide information in different languages and formats, including:

- audiobooks
- Braille
- British Sign Language
- easy read booklets
- interactive PDFs
- large print
- translations.

Find out more at **macmillan.org.uk/otherformats**

If you would like us to produce information in a different format for you, email us at **informationproductionteam@macmillan.org.uk** or call us on **0808 808 00 00**.

The language we use

We want everyone affected by cancer to feel our information is written for them.

We try to make sure our information is as clear as possible. We use plain English, avoid jargon, explain any medical words, use illustrations to explain text, and make sure important points are highlighted clearly.

We use gender-inclusive language and talk to our readers as 'you' so that everyone feels included. Where clinically necessary we use the terms 'men' and 'women' or 'male' and 'female'. For example, we do so when talking about parts of the body or mentioning statistics or research about who is affected. Our aims are for our information to be as clear and relevant as possible for everyone.

You can read more about how we produce our information at **macmillan.org.uk/ourinfo**

Other ways we can help you

At Macmillan, we know how a cancer diagnosis can affect everything, and we are here to support you.

Talk to us

If you or someone you know is affected by cancer, talking about how youfeel and sharing your concerns can really help.

Macmillan Support Line

Our free, confidential phone line is open 7 days a week, 8am to 8pm. We can:

- help with any medical questions you have about cancer or your treatment
- help you access benefits and give you financial guidance
- be there to listen if you need someone to talk to
- tell you about services that can help you in your area.

Our trained cancer information advisers can listen and signpost you to further support. Call us on **0808 808 00 00**. We are open 7 days a week, 8am to 8pm.

You can also email us, or use the Macmillan Chat Service via our website. You can use the chat service to ask our advisers about anything that is worrying you. Tell them what you would like to talk about so they can direct your chat to the right person. Click on the 'Chat to us' button, which appears on pages across the website. Or go to **macmillan.org.uk/talktous**

If you would like to talk to someone in a language other than English, we also offer an interpreter service for our Macmillan Support Line. Call **0808 808 00 00** and say, in English, the language you want to use. Or send us a web chat message saying you would like an interpreter. Let us know the language you need and we'll arrange for an interpreter to contact you.

Macmillan Information and Support Centres

Our Information and Support Centres are based in hospitals, libraries and mobile centres. Visit one to get the information you need and speak with someone face to face. If you would like a private chat, most centres have a room where you can speak with someone confidentially.

Find your nearest centre at **macmillan.org.uk/informationcentres** or call us on **0808 808 00 00**.

Help with money worries

Having cancer can bring extra costs such as hospital parking, travel fares and higher heating bills. If you have been affected in this way, we can help. Please note the opening times may vary by service.

Our advisers can discuss money worries in general and signpost you to more information and support.

Macmillan Grants

Macmillan Grants are small, one-off payments to help people with the extra costs that cancer can cause. They are for people who have a low level of income and savings.

If you need things like extra clothing or help paying heating bills, you may be able to get a Macmillan Grant. A grant from Macmillan does not affect the benefits you are entitled to. It is an extra bit of help, not a replacement for other support.

To find out more, or to apply, call on **0808 808 00 00** or visit **macmillan.org.uk/grants**

Help with work and cancer

Whether you are an employee, a carer, an employer or are self-employed, we can provide support and information to help you manage cancer at work. Visit **macmillan.org.uk/work**

Talk to others

No one knows more about the impact cancer can have on your life than those who have been through it themselves. That is why we help bring people together in their communities and online.

Support groups

Whether you are someone living with cancer or a carer, family member or friend, we can help you find support in your local area, so you can speak face to face with people who understand. Find out about support groups in your area by calling us or by visiting **macmillan.org.uk/selfhelpandsupport**

Online Community

Thousands of people use our Online Community to make friends, blog about their experiences and join groups to meet other people going through the same things. You can access it any time of day or night. Share your experiences, ask questions, or just read through people's posts at **macmillan.org.uk/community**

You can also use our Ask an Expert service on the Online Community. You can ask a financial guide, cancer information nurse, work support advisor or an information and support advisor any questions you have.

Macmillan healthcare professionals

Our nurses, doctors and other health and social care professionals give expert care and support to individuals and their families. Call us or ask your GP, consultant, district nurse or hospital ward sister if there are any Macmillan professionals near you.

Other useful organisations

There are lots of other organisations that can give you information or support. Details correct at time of printing.

Breast cancer organisations

Breast Cancer Haven

Tel **07572 637 588**
www.breastcancerhaven.org.uk
Has information about healthy eating, exercise and stress reduction classes, and a range of self-help videos and resources. These can be accessed online.

Breast Cancer Now

Helpline **0808 800 6000**
www.breastcancernow.org
Provides information and practical and emotional support to people affected by breast cancer. Specialist breast care nurses run the helpline. Also offers a peer support service where anyone affected by breast cancer can be put in touch with a trained supporter who has had personal experience of breast cancer.

Keeping Abreast

Tel **01603 819 113**
www.keepingabreast.org.uk
Offers support for people having breast reconstruction. Provides a network of dedicated support groups and online support across the UK.

Restore

www.restore-bcr.co.uk
Offers information and support, and connects women going through breast cancer and breast reconstruction. Hosts 'show and tell' events in London, the South-East and online, where prospective patients can see results.

General cancer support organisations

Asian Women Cancer Group

www.asianwomencancergroup.co.uk
Helps Asian women who have been affected by breast cancer. Provides emotional support and financial guidance.

Cancer Black Care

Tel **020 8961 4151**
www.cancerblackcare.org.uk
Offers UK-wide information and support for people from Black and ethnic minority communities who have cancer. Also supports their friends, carers and families.

Cancer Focus Northern Ireland

Helpline **0800 783 3339**
www.cancerfocusni.org
Offers many services to people affected by cancer in Northern Ireland.

Cancer Research UK

Tel **0300 123 1022**
www.cancerresearchuk.org
A UK-wide organisation that has patient information on all types of cancer. Also has a clinical trials database.

Macmillan Cancer Voices

www.macmillan.org.uk/volunteering/share-your-experience/cancer-voices
A UK-wide network that enables people who have or have had cancer, and those close to them such as family and carers, to speak out about their experience of cancer.

Maggie's

Tel **0300 123 1801**
www.maggies.org
Has a network of centres in many locations throughout the UK. Provides free information about cancer and financial benefits. Also offers emotional and social support to people with cancer, their family, and friends.

Penny Brohn UK

Tel **0303 3000 118**
www.pennybrohn.org.uk
Offers physical, emotional and spiritual support across the UK, using complementary therapies and self-help techniques.

Tenovus

Helpline **0808 808 1010**
www.tenovuscancercare.org.uk
Aims to help everyone in the UK get equal access to cancer treatment and support. Funds research and provides support such as mobile cancer support units, a free helpline, benefits advice and an online 'Ask the nurse' service.

General health information

Health and Social Care in Northern Ireland

online.hscni.net
Provides information about health and social care services in Northern Ireland.

NHS.UK

www.nhs.uk
The UK's biggest health information website. Has service information for England.

NHS 111 Wales

111.wales.nhs.uk
NHS health information site for Wales.

NHS Inform

Helpline **0800 22 44 88**
www.nhsinform.scot
NHS health information site for Scotland.

Counselling

British Association for Counselling and Psychotherapy (BACP)

Tel **0145 588 3300**
www.bacp.co.uk
Promotes awareness of counselling and signposts people to appropriate services across the UK. You can also search for a qualified counsellor on their 'How to find a therapist' page.

College of Sexual and Relationship Therapists (COSRT)

Tel **020 8106 9635**
www.cosrt.org.uk
Has a directory of therapists to help members of the public find professional support in their local area.

Relate

www.relate.org.uk
Offers advice, relationship counselling, sex therapy, workshops, mediation, consultations and support face to face, by phone and online.

Emotional and mental health support

Mind

Helpline **0300 123 3393**
www.mind.org.uk
Provides information, advice and support to anyone with a mental health problem through its helpline and website.

Samaritans

Helpline **116 123**
Email **jo@samaritans.org**
www.samaritans.org
Provides confidential and non-judgemental emotional support, 24 hours a day, 365 days a year, for people experiencing feelings of distress or despair.

LGBT-specific support

LGBT Foundation

Tel **0345 330 3030**
www.lgbt.foundation
Provides a range of services to the LGBT community, including a helpline, email advice and counselling. The website has information on various topics including sexual health, relationships, mental health, community groups and events.

OUTpatients

www.outpatients.org.uk
A safe space for anybody who identifies as part of the queer spectrum and has had an experience with any kind of cancer at any stage.
Also produces resources about LGBT cancer experiences. OUTpatients runs a peer support group with Maggie's Barts.

Cancer registries

The cancer registry is a national database that collects information on cancer diagnoses and treatment. This information helps the NHS and other organisations plan and improve health and care services.

There is a cancer registry in each country in the UK. They are run by the following organisations:

England – National Disease Registration Service (NDRS)

digital.nhs.uk/ndrs/patients

Scotland – Public Health Scotland (PHS)

publichealthscotland.scot/our-areas-of-work/conditions-and-diseases/cancer/scottish-cancer-registry-and-intelligence-service-scris/overview

Wales – Welsh Cancer Intelligence and Surveillance Unit (WCISU)

Tel **0292 010 4278**
phw.nhs.wales/wcisu

Northern Ireland – Northern Ireland Cancer Registry (NICR)

Tel **0289 097 6028**
qub.ac.uk/research-centres/nicr/AboutUs/Registry

Your notes and questions

Your notes and questions

Disclaimer

We make every effort to ensure that the information we provide is accurate and up to date, but it should not be relied upon as a substitute for specialist professional advice tailored to your situation. So far as is permitted by law, Macmillan does not accept liability in relation to the use of any information contained in this publication, or third-party information or websites included or referred to in it. Some photos are of models.

Thanks

This booklet has been written, revised and edited by Macmillan Cancer Support's Cancer Information Development team. It has been approved by our Senior Medical Editor, Professor Mike Dixon, Professor of Surgery and Consultant Surgeon.

With thanks to:

Caroline Coles, Breast Reconstruction Nurse; Miss Joanna Franks, Consultant Breast and Oncoplastic Surgeon; Rebecca Spencer, Macmillan Breast Reconstruction Clinical Nurse Specialist; and Mr Simon Wood, Consultant Plastic Surgeon.

Surgical photos supplied by Professor Mike Dixon, Elaine Sassoon and Miss Kalliope Valassiadou.

Thanks also to the people affected by cancer who reviewed this edition, and those who shared their stories.

We welcome feedback on our information. If you have any, please contact **informationproductionteam@macmillan.org.uk**

Sources

Below is a sample of the sources used in our breast reconstruction information. If you would like more information about the sources we use, please contact us at **informationproductionteam@macmillan.org.uk**

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National Institute for Health and Care Excellence (NICE). Breast reconstruction using lipomodelling after breast cancer treatment. 2012. Available from: www.nice.org.uk/guidance/ipg417/ (accessed November 2022).

National Institute for Health and Care Excellence (NICE). Early and locally advanced breast cancer: diagnosis and management. Guidelines. July 2018. Available from: www.nice.org.uk/guidance/ng101 (accessed November 2022).

Can you do something to help?

We hope this booklet has been useful to you. It is just one of our many publications that are available free to anyone affected by cancer. They are produced by our cancer information specialists who, along with our nurses, benefits advisers, campaigners and volunteers, are part of the Macmillan team. When people are facing the toughest fight of their lives, we are here to support them every step of the way.

We want to make sure no one has to go through cancer alone, so we need more people to help us. When the time is right for you, here are some ways in which you can become a part of our team.

5 ways you can help someone with cancer

1. **Share your cancer experience**
   Support people living with cancer by telling your story, online, in the media or face to face.

2. **Campaign for change**
   We need your help to make sure everyone gets the right support. Take an action, big or small, for better cancer care.

3. **Help someone in your community**
   A lift to an appointment. Help with the shopping. Or just a cup of tea and a chat. Could you lend a hand?

4. **Raise money**
   Whatever you like doing you can raise money to help. Take part in one of our events or create your own.

5. **Give money**
   Big or small, every penny helps.
   To make a one-off donation see over.

Please fill in your personal details

Mr/Mrs/Miss/Other

Name

Surname

Address

Postcode

Phone

Email

Please accept my gift of £
(Please delete as appropriate)

I enclose a cheque / postal order / Charity Voucher made payable to Macmillan Cancer Support
OR debit my:
Visa / MasterCard / CAF Charity Card / Switch / Maestro

Card number

Valid from

Expiry date

Issue no

Security number

Signature

Date / /

Do not let the taxman keep your money

Do you pay tax? If so, your gift will be worth 25% more to us – at no extra cost to you. All you have to do is tick the box below, and the tax office will give 25p for every pound you give.

☐ I am a UK tax payer and I would like Macmillan Cancer Support to treat all donations I make or have made to Macmillan Cancer Support in the last 4 years as Gift Aid donations, until I notify you otherwise.

I understand that if I pay less Income Tax and/or Capital Gains Tax than the amount of Gift Aid claimed on all my donations in that tax year it is my responsibility to pay any difference. I understand Macmillan Cancer Support will reclaim 25p of tax on every £1 that I give.

Macmillan Cancer Support and our trading companies would like to hold your details in order to contact you about our fundraising, campaigning and services for people affected by cancer. If you would prefer us not to use your details in this way please tick this box. ☐

In order to carry out our work we may need to pass your details to agents or partners who act on our behalf.

If you would rather donate online go to **macmillan.org.uk/donate**

Registered with FUNDRAISING REGULATOR

Please cut out this form and return it in an envelope (no stamp required) to: Supporter donations, Freepost RUCY-XGCA-XTHU, Macmillan Cancer Support, PO Box 791, York House, York YO1 0NJ

MACMILLAN CANCER SUPPORT

This booklet is for anyone who is thinking about having breast reconstruction. It explains what breast reconstruction is and what it involves. It talks about the different options for breast reconstruction.

There is information about the benefits, limitations and risks of each type of surgery. We also talk about some of the physical and emotional issues you may experience, and ways to cope with these.

At Macmillan, we give people with cancer everything we've got. If you are diagnosed, your worries are our worries. We will help you live life as fully as you can.

For information, support or just someone to talk to, call **0808 808 00 00** or visit **macmillan.org.uk**

Would you prefer to speak to us in another language? Interpreters are available. Please tell us in English the language you would like to use.
Are you deaf or hard of hearing? Call us using Relay UK on **18001 0808 808 00 00**, or use the Relay UK app.

Need information in different languages or formats? We produce information in audio, interactive PDFs, easy read, Braille, large print and translations.
To order these, visit **macmillan.org.uk/otherformats** or call our support line.

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