

MACMILLAN
CANCER SUPPORT

UNDERSTANDING BREAST RECONSTRUCTION





“My reconstruction was wonderful. I couldn’t believe how good it was and showed it to anyone that would look.”

Jazz, diagnosed with breast cancer

About this booklet

This booklet is for anyone who is thinking about having breast reconstruction.

The booklet 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 in this booklet. This is to help show how a reconstruction may look.

This 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

The booklet is split into sections to help you find what you need. Some parts of the booklet might not be relevant to your situation. You can use the contents list on page 5 to help you find the information you need.

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

At the end of this booklet, there are details of other organisations that can help (see pages 105 to 108).

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. Others are from our Online Community, which you can visit at **[macmillan.org.uk/community](https://www.macmillan.org.uk/community)**

For more information

We hope this booklet answers some of your questions and helps you deal with some of the feelings you may have. We have also listed other sources of support and information, which we hope you will find useful. We cannot advise you about the best treatment for you. This information can only come from your doctor, who knows your full medical history.

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. 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 NGT (Text Relay) on **08001 0808 808 00 00**, or use the NGT Lite app.

We have some information in different languages and formats, including audio, eBooks, easy read, large print and translations. To order these, visit **[macmillan.org.uk/otherformats](https://www.macmillan.org.uk/otherformats)** or call **0808 808 00 00**.

Your data and the cancer registry

When you are diagnosed with cancer in the UK, some information about you, your cancer diagnosis and your treatment is collected in a cancer registry. This is used to plan and improve health and care services. Your hospital will usually give this information to the registry automatically. There are strict rules to make sure the information is kept safely and securely. It will only be used for your direct care or for health and social care planning and research.

Talk to your doctor or nurse if you have any questions. If you do not want your information included in the registry, you can contact the cancer registry in your country to opt out.

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'My plastic surgeon met with me three times to discuss the procedure and offered to put me in touch with someone who had already had it done.'

Jazz

MAKING YOUR DECISION

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What is breast reconstruction?

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

Breast reconstruction may be done at the same time as a mastectomy. This is called immediate reconstruction. Or it can be done as a second operation months or sometimes years later. This is called delayed reconstruction.

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

The aim of breast reconstruction is to match your reconstructed breast to your other breast as closely as possible. This usually involves more than one operation. The first operation creates a breast shape. Then you may have further operations to improve the appearance of your reconstructed breast. You may also be offered surgery to your other breast so they both look the same.

The new breast shape can be made with:

- a breast implant
- tissue taken from another part of your body
- a combination of both.

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

Most women who have a mastectomy have their nipple removed as part of the operation. If you decide to have a new nipple made, you will usually have this done as a separate operation. This is normally done a few months after the mastectomy. This gives the reconstructed breast time to settle into its final shape.

Women who have part of their breast removed (breast-conserving surgery) usually do not need breast reconstruction. But if you are unhappy with the appearance of the breast after breast-conserving surgery, there are things that can help.

Thinking about breast reconstruction

Deciding whether to have breast reconstruction or when to have it will depend on your individual situation. You are the best person to know what feels right for you.

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 relative or friend you trust. You might want to contact an organisation such as Breast Cancer Now. You can find their contact details on pages 105 to 106.

Breast reconstruction is available on the NHS. There are many options available.

It is important to discuss your options for breast reconstruction before you have a mastectomy. You do not have to make a definite decision about it at this stage. But it will help the surgeon to plan your initial surgery.

Should I have breast reconstruction surgery?

Women have breast reconstruction for different reasons. You may choose it so that you will not need to wear a false breast (breast prosthesis/form). Or you may feel that it will improve your confidence about how you look and feel about your body after breast surgery.

You may decide that you are comfortable wearing a breast prosthesis. You may not want to go through the additional surgery that breast reconstruction involves.

Some women plan to have breast reconstruction but then decide not to. They find that losing their breast does not trouble them as much they thought it would.

Some women feel ready to have breast reconstruction years after surgery for breast cancer.

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 you will have a breast shape immediately after the operation.

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

- your general health
- your relationships
- your commitments and priorities.

It is important to have realistic expectations about breast reconstruction. It cannot give you a perfect breast. A reconstructed breast will not have as much sensation and may not move as well as your natural breast did.

If you are only having one breast reconstructed, your surgeon will aim to match it to your other breast. But there may be differences in the size, shape or position of the two breasts. Most women are pleased with the results of their surgery, but some women are disappointed.

Breast reconstruction usually involves having two or more operations. These are usually done over a period of 6 to 12 months.

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

It may be helpful to think about the possible benefits and limitations of breast reconstruction before making your decision.

Benefits of breast 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.
- You will take longer to recover from your operation.
- Most women 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.

Deciding when to have breast reconstruction

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

Immediate reconstruction

An immediate reconstruction is done at the same time as a mastectomy. It is often possible for the surgeon to leave most of the skin that covers the breast when they remove the breast tissue. Doctors call this a skin-sparing mastectomy. It leaves less scarring than a delayed reconstruction. This is because less skin is removed.

This operation usually removes the nipple, the dark area around the nipple (areola) and a small circle of skin around the areola.

Sometimes it is possible to leave the nipple in place attached to the breast skin. Doctors call this a nipple-sparing mastectomy. Sometimes the nipple is removed and then put back on to the reconstructed breast.

Benefits of immediate reconstruction

- Immediate reconstruction often 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

- You may have to wait longer to have your mastectomy if two teams of surgeons are involved.
- Immediate reconstruction involves a longer operation and recovery time.
- 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. But this is uncommon.
- Having radiotherapy after breast reconstruction may affect the appearance of the reconstructed breast. If you need radiotherapy, your doctors may suggest delayed breast reconstruction.

Delayed reconstruction

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

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

Benefits of delayed reconstruction

- Delayed reconstruction is usually always available – even years after your original surgery.
- You will have your surgery in stages. This means that you will have a shorter recovery time after each procedure.
- Reconstructive surgery 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 then 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 will need at least one additional operation, which requires a general anaesthetic.

Talking with your surgeon

Breast reconstruction is done by an oncoplastic breast surgeon (breast reconstructive surgeon) or a plastic surgeon.

Oncoplastic surgeons are trained in breast cancer surgery and some types of breast reconstruction. Plastic surgeons usually do the more complex breast reconstruction operations. You may need to travel to a plastic surgery unit to have these.

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

A new breast shape can be made:

- with a breast implant (see pages 28 to 40)
- by using tissue taken from another part of your body (see pages 41 to 61)
- 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 women who have had breast reconstruction. There are also photos in this booklet of women who have had different types of breast reconstruction.

'I was shown realistic photos of women at my appointment. They had a scrapbook of before and after photos with each type of reconstruction and the negative points for each. It was very helpful.'

Christine

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

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

Some questions to ask your surgeons

It often helps to have a list of questions to ask. Both your breast surgeon and your reconstructive surgeon will be sensitive to your thoughts and feelings about breast reconstruction. So do not be afraid to ask about anything you are concerned about.

Some questions for your breast surgeon

- What types of reconstruction 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 can perform this type of surgery?
- If I need to have radiotherapy, will this affect the reconstruction or type of reconstruction I should have?

Some questions for your breast reconstructive surgeon

Here are some questions you might like to ask about reconstruction:

- What types of reconstruction would be suitable for me?
- What are the risks or complications of the different types of surgery, and 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?

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

- 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 effect breast reconstruction will have on your life. These might include:

- 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 immediately after surgery? How about 6 months or a year after surgery?
- Will I need any further surgery in the future 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.

'I have seen the plastic surgeon twice and had a chat with a psychologist. The consultation with my plastic surgeon was very in depth and he went through the options, asked me a lot of questions and showed me before and after photos.'

Michelle

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 full information about:

- the type of the operation and exactly what it involves
- the advantages 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 several discussions with your surgeon and nurse. It is a good idea to have a relative 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 so they can explain again. They should always give you time to ask questions.

If you are thinking about having 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.

Smoking and breast reconstruction

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

If you smoke, you are much more likely to develop problems during breast reconstruction. Smoking damages blood vessels. People who smoke are more likely to have problems with wound healing. They are also much more likely to have complications with breast reconstruction operations.

Even if you only stop smoking for a few weeks, this will reduce the risk of complications. So if you smoke, try to stop before surgery and do not smoke during the recovery period. Your hospital and GP will give you help and support to stop smoking.

The NHS has a lot of information and support to help you give up smoking. Look on the NHS website for the country where you live.

‘The operation sounded amazing. I was very impressed. I am a very strong character and had made my mind up that this treatment was right for me.’

Jazz



DIFFERENT TYPES OF BREAST RECONSTRUCTION

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Types of breast reconstruction

There are three main types of breast reconstruction:

Reconstruction using breast implants

The surgeon puts an implant under the muscle and skin of your chest to make a new breast shape.

Reconstruction using your own tissue

Skin, fat and sometimes muscle are taken from another part of your body to make a new breast shape.

Reconstruction using implants and your own tissue

The surgeon makes a breast shape using implants and 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 build and the shape and size of your breasts
- whether you have had or are going to have radiotherapy to your chest
- how much of your breast tissue has already been removed
- how healthy the tissue and skin are on your breast 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 page 63.

Reconstruction using an implant

Breast implants are often used for:

- immediate breast reconstruction
- women having both breasts reconstructed.

The surgeon makes a breast shape by putting a breast implant under, or sometimes in front of, the chest muscle.

Breast implants have a silicone outer cover with silicone gel or salt water (saline) inside. They come in a range of sizes and can be round or teardrop-shaped.

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

One-stage procedure

The surgeon puts either a fixed-size implant or an expandable implant under your chest muscle.

Fixed-size implant

The surgeon puts a permanent silicone implant under or sometimes in front of the muscle to create a new breast shape.

The surgeon may use a surgical mesh to support the implant and improve the shape of the reconstructed breast. It can be made from different materials, such as a synthetic material or a tissue-like material, made from animal or human tissue.

Sometimes, the surgeon uses your own tissue to make a supporting sling for the implant. This may be suitable if you want your reconstructed breast to be smaller or more lifted.

The surgeon attaches the supporting material to the chest muscle and the chest wall to create a sling. This holds the lower part of the implant in place. It also helps give the breast a natural droop without stretching the chest muscle.

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

'The new permanent implant is very soft and is not uncomfortable at all. I can barely feel it. Life will never be exactly the same but I am learning to enjoy it again.'

Elena

Expandable implant

If your chest muscle needs to be stretched, the surgeon can use an expandable implant. An expandable implant has an outer chamber of silicone gel and a hollow inner chamber. This inner chamber can be filled with saline through a valve (port).

The surgeon puts the expandable implant under your chest muscle. You then wait a few weeks for the tissues to heal. After this, the muscle and skin begin to stretch to form your new breast shape.

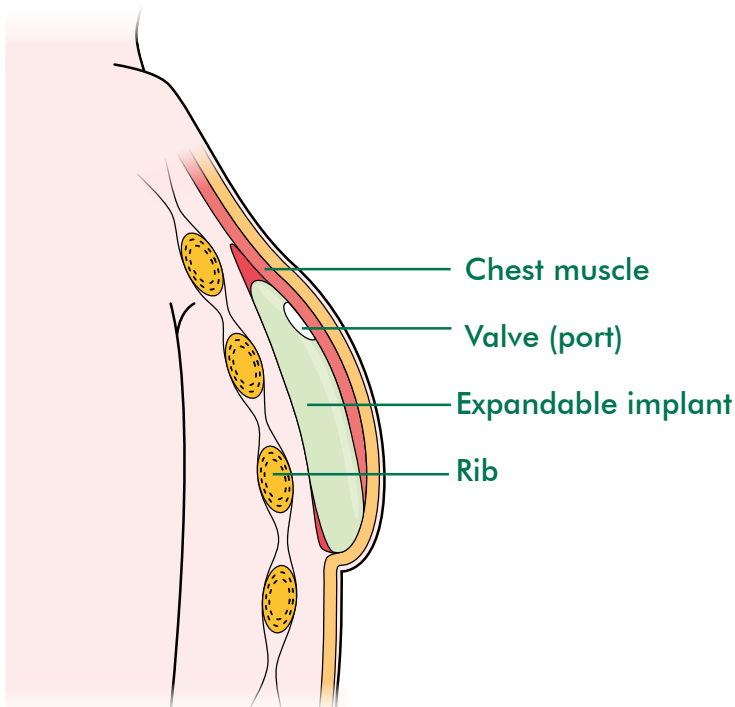
Every 1 to 2 weeks, a nurse or doctor injects saline into the implant. They do this through a port under the skin of your underarm. You may feel some aching or tightness in the breast area for a day or two after each injection. This process continues over several weeks.

After a few more weeks, once the muscle has been stretched, the nurse or doctor may remove some saline through the port. The surgeon can then take the port out during a small operation. The operation can be done under a local or general anaesthetic.

Two-stage procedure

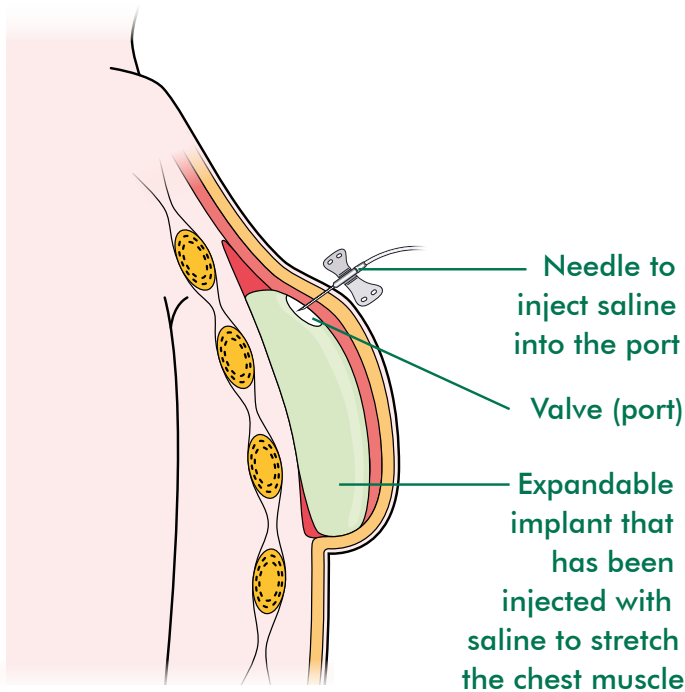
The surgeon puts a temporary tissue expander under the chest muscle to stretch it. A temporary tissue expander has a hollow inner chamber that can be filled with saline. But it does not have the silicone gel outer chamber that a permanent expandable implant has.

A temporary tissue expander in the breast



A nurse or doctor injects saline into the expander through a port just under the skin of the chest. This increases the size of the expander and stretches the chest muscle to form the breast shape.

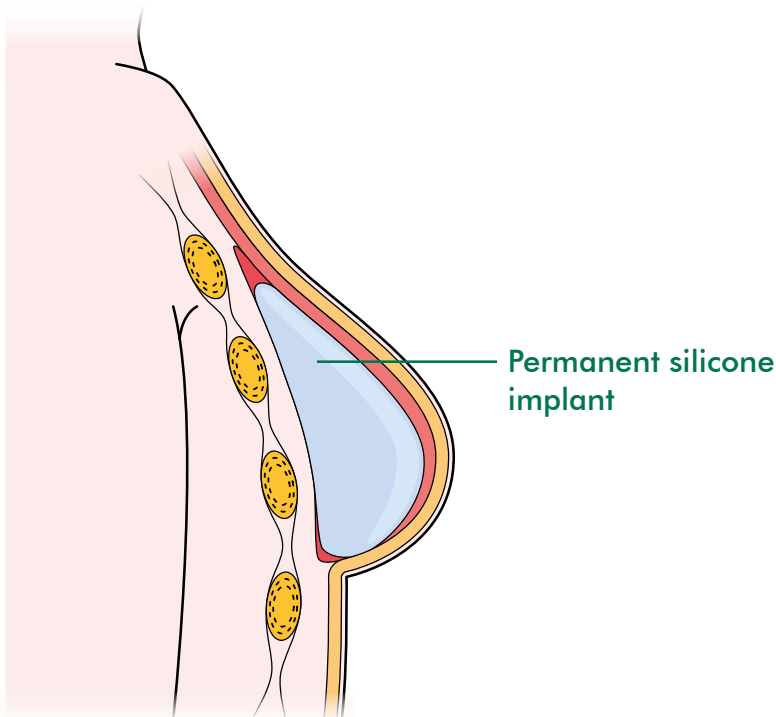
Saline is injected through a port into the temporary implant



Once the temporary implant has expanded to its final size, it stays in place for a few months. This allows the muscle to stretch fully.

You then have an operation to have the implant taken out. At the same time, the surgeon puts a permanent silicone implant under your chest muscle. This gives you your final breast shape.

The expandable implant is removed and a permanent silicone implant is put in its place



Reconstruction of both breasts with expander implants – the photo on the right also shows nipple reconstruction



Reconstruction of both breasts with expander implants (without nipple reconstruction)



What are the benefits?

- It is an easier operation than other types of 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.
- It can give a good appearance, particularly for women with small breasts or women who are having both breasts reconstructed.

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 it may be done to add fat over the implant (lipomodelling – see pages 68 to 69) to improve the shape and give a more natural feel.
- The reconstructed breast is unlikely to have the same droop as the natural breast.
- Your natural breast changes over time, but the breast with the implant will not. This may mean that in future your breasts look less even. You may need surgery to lift your natural breast.
- The implant may change in shape when the muscle over it tightens (contracts).
- Some women may be able to see a rippling effect through their skin. This is caused by creasing or folds in the implant.
- A reconstructed breast has less sensation than a natural breast. It may feel numb.
- You may need surgery to replace an implant if it leaks or if the tissue around the implant tightens.

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 will have gone up to 1 in 7 women (15%). This can happen because of wounds not healing properly, which can cause infection.

Smoking or having radiotherapy further increase the risk. Up to 1 in 5 women (20%) who smoke or who had radiotherapy after mastectomy need their implant removed.

If the implant needs to be removed, there will usually be a delay of a few months before a new implant is 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.

Infection around the implant

It is rare to have an infection in the tissue around the implant. But if this happens, the implant usually has to be removed until the infection clears. The implant can then be replaced with a new one. 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, the final appearance of the reconstructed breast may not be as good. It is important to follow any advice you are given about preventing infection.

Tightening or hardening of tissue around the implant

A breast implant is not a natural part of you. Because of this your body reacts to it by forming a capsule of scar tissue around the implant.

Over a few months, the scar tissue can shrink (contract) as part of the natural healing process. In some women, the capsule can become very tight. This is called capsular contracture. The reconstructed breast may then feel hard or painful. It may also change shape.

Smoking, infections or having radiotherapy to the chest increase the risk of capsular contracture.

Capsular contracture can be treated by taking fat from another part of your body and injecting it around the implant (lipomodelling). Or you may need an operation to remove the capsule or scar tissue and replace the implant. Some women may need to have the breast reconstructed with a flap of their own tissue.

Rippling of implants

The surgeon usually places the implant under the chest muscle. But the chest muscle is thin, so implants are close to the skin. If the implant is placed over the muscle, then the implant is also very close to the skin. This can make the implant crease, which can produce rippling. You may be able to see this all the time. Or you may only be able to see it when you move and the muscle contracts. Your surgeon may suggest injecting fat under the skin (lipomodelling) to thicken the tissue over the implant. This can reduce the appearance of rippling. Lipomodelling may need to be repeated to remove the rippling completely.

Damage (rupture) to implants

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

But occasionally an implant might split or tear. Most silicone implants contain a firm gel. This is unlikely to leak in significant 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 device, it will not cause any harm. But the implant device will go flat and will need to be replaced.

Implants and mammograms

Implants can make mammograms (breast x-rays) more difficult to read.

But if you have an implant put in after breast-conserving surgery, you still need to have mammograms of that breast. Women who have an implant in their other breast (to balance it with their reconstructed breast) still need mammograms of that breast.

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 Protheses (PIP). PIP implants have not been used in the UK since 2010.

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

If you are concerned 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 an extremely rare type of non-Hodgkin lymphoma that can sometimes affect the breast. Women with 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 estimated that about 1 in 80,000 women who have a type of breast implant known as a textured implant will develop BIA-ALCL. This is a small risk. But it is important to talk with your reconstructive surgeon before deciding on implant surgery.

If BIA-ALCL develops, it is most likely to show up as a swelling or an increase in the size of the breast. This can happen months or years after implant surgery. It can usually be successfully treated by an operation to remove the implant and the capsule of tissue surrounding it.

Reconstruction using your own tissue

Flap reconstruction is a type of breast reconstruction that uses your own tissue. It is more complex than implant reconstruction. 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 flap is taken from a part of your body called the donor site. Most flap reconstructions use tissue from the tummy (abdomen). But tissue from the back, buttocks or thighs can also be used.

Blood supply

The reconstructed breast needs a good blood supply to keep it healthy. There are two 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. They then move the flap of tissue to your chest and connect it to a new blood supply there. It 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.

Pedicle flap reconstruction

With a pedicle flap reconstruction, the surgeon takes a flap of tissue from your back or tummy. They keep it connected to its original blood supply. They then tunnel the tissue and its blood supply under your skin and out onto your chest. All reconstructions using tissue from the back are pedicle flap reconstructions. So are some that use tissue from the tummy.

Who might it be 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
- cannot have an implant or tissue expansion because the chest skin and muscle are too tight
- have large or droopy breasts and do not want your breasts to be smaller.

Flap reconstructions, especially free flap operations, may not be suitable if you:

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

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.
- The reconstructed breast is more likely to look the same as your other breast over time. This means you are less likely to have to consider further maintenance breast surgery in the future.
- You can often avoid having an implant.

What are the limitations?

- You will have a scar on the part of your body that the tissue flap is taken from.
- You may have a patch of skin or circle of skin on the reconstructed breasts. 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 more information about this.
- It involves having surgery to another part of your body to remove the skin flap.
- You will have a longer operation, hospital stay and recovery.
- Reconstructed breasts have less sensation than the original breasts. They may feel numb.

What are the risks?

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

Second operation

Your surgeon and nurses will check the reconstructed breast for a few days after the operation. They will want to be sure that the breast has a good blood supply. If there are any signs of a problem during this time, you may need another operation so they can check it. This is to make sure the reconstructed breast tissue stays healthy and heals well.

Loss of part or all of the reconstructed breast

Most operations are successful. But occasionally some or all of the tissue dies soon after the operation. This can happen if the reconstructed breast does not have a good blood supply. If this happens, you may not be happy with the appearance of your breast. If you want to improve the appearance of your breast, you may need another operation.

Fat necrosis

Fat necrosis can cause a firm lump in the reconstructed breast. It can happen when fatty tissue does not have a good enough blood supply.

Small areas of fat necrosis can often be absorbed by the body over time. But some women need surgery or liposuction to remove the 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 by injecting fat into your breast (lipomodelling).

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

Reconstruction using tissue from your back

This is known as 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. They then put it into position on your chest to make a new breast shape.

Some women have a combination of an LD flap and implant reconstruction. The implant gives more volume to the breast. The flap covers the implant. This gives the breast a more natural look and feel. Sometimes, surgeons use liposuction to take fat from another part of the body. They then inject this into the muscle to create a reconstructed breast. This is called lipomodelling. It may be used to create a larger breast shape so an implant is not needed.

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

LD flap with nipple prosthesis, and the scar on the back



Extended LD flap and nipple reconstruction



LD flap with implant



Delayed LD flap with lipofilling



Who might it be suitable for?

Using tissue from the back may be suitable for women with breasts of any size.

It may not be suitable for women who have jobs or hobbies that involve:

- using their arms above shoulder height
- heavy lifting or climbing.

'I had an immediate reconstruction using muscle from my back and an implant. The cosmetic result in clothes is amazing and I honestly cannot tell the difference!'

Allison

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 your other breast.
- You may need to have surgery to lift or reduce the size of 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.

What are the risks?

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

Build-up of fluid (seroma) under the wound on the back

This sometimes happens after the operation but usually gets better within a few weeks.

Changes in sensation

Sometimes surgery can cause numbness, pain or oversensitivity in the area of your back where the tissue was taken from.

The chance of this happening is higher after an extended LD flap operation, where more tissue is taken from the back.

Shoulder weakness

After the operation, you will have some weakness in your back and shoulder. This will improve over time. There are other muscles in the back that can compensate 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 notice weakness during some movements. For example, you may have problems with:

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

Most women can return to daily activities without any problems, including sports such as swimming and tennis. However, having LD flap surgery can affect your ability to take part in some sports, such as rowing, rock climbing, cross-country skiing and high-level competitive racquet sports.

Reconstruction using tissue from your tummy

Reconstructed breasts are usually made using tissue from your tummy (abdomen). Most women have a reconstruction called a free DIEP flap (deep inferior epigastric perforator flap).

With a free DIEP flap, the surgeon uses a flap of fat and skin from the tummy area to create a breast shape. They separate the tissue and its blood vessels from your tummy. They then move the flap to the breast area and connect it to a new blood supply in your chest.

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, but the surgeon uses a different blood vessel to create the new blood supply.
- 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. 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.
- MS-TRAM flap (muscle sparing transverse rectus abdominal muscle flap). The surgeon takes only a part of the muscle from your tummy area to create a new breast shape. This is usually done as a free flap operation.

Immediate DIEP flap



DIEP flap and nipple reconstruction



Delayed SIEA flap



Who is it suitable for?

This type of reconstruction may be suitable for women:

- with breasts of any size
- who do not want an implant
- who need to have both breasts reconstructed.

It may not be suitable for women who:

- have previous scarring on the tummy area
- are very slim and do not have enough tissue on their tummy
- smoke
- have diabetes or other illnesses, such as rheumatoid arthritis or other autoimmune diseases, that interfere with blood circulation to their tissue.

What are the limitations?

- You may have a patch of skin on your breast which is a different skin tone.
- You will have a scar across your tummy below your belly button, from hip to hip.
- Most operations using tissue from the tummy are successful. But they have a slightly higher risk of complications than operations using tissue from the back.
- Some women have some loss of sensation (numbness) in the tummy area.

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. A seroma sometimes happens after the operation, but it usually gets better within a few weeks. You may be asked to buy supportive underwear to wear for 6 weeks after surgery. Wearing this will support your tummy and help to reduce swelling and seroma.

Muscle weakness

TRAM flaps use one of the muscles from the front of the tummy (the ones that form the six-pack). These muscles are important for lifting and physical work. They also work with the back muscles. If they are weakened, you may get back pain and find some sports and physical activities more difficult. A physiotherapist may give you exercises to do to strengthen your tummy. A 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.

In a DIEP or SIEA flap, no muscle is used. This preserves the strength of the tummy more.

Hernia or bulge in the tummy area

Some women develop a bulge or hernia in the tummy area. If a muscle is used in the breast reconstruction, there is a higher risk of this happening. But a bulge can develop after any type of flap surgery that uses tissue from the tummy.

Sometimes the surgeon will use a mesh to strengthen the abdominal wall. This is used to try to prevent a bulge or hernia. This mesh may be permanent, or it can be designed to dissolve away in time.

Reconstruction using tissue from your thigh

This is a free flap operation. It uses tissue from the upper inner thigh. It may be an option when the tummy area cannot be used.

There are two different operations that use tissue from the thigh:

- A TMG flap (transverse myocutaneous gracilis flap) or TUG flap (transverse upper gracilis flap). This uses skin, fat, and usually muscle from the thigh.
- A PAP flap (profunda artery perforator flap). This uses skin and fat from the thigh.

The plastic surgeon removes tissue from the thigh and attaches it to the chest using microsurgery. Microsurgery uses high magnification microscopes to operate on areas that are too small to be seen.



Who is it suitable for?

This type of reconstruction may be suitable for women who:

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

It may not be suitable for women who want large breasts reconstructed.

What are the limitations?

- You will have a scar on your breast and a scar on your upper inner thigh.
- If you want a larger breast, you may need an implant as well.
- Your upper thigh may become numb or lose some feeling.
- You may need to have surgery to lift or reduce the size of your natural breast so that both breasts are a good match.
- One thigh may be slightly smaller than the other after surgery.

What are the risks?

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

Build-up of fluid (seroma) under the wound on the thigh

Sometimes after wound drains are taken out, fluid builds up under the wound. This is called a seroma. This sometimes happens after the operation, but usually gets better within a few weeks.

Swelling of the leg

You may be asked to wear supportive clothing, such as cycling shorts and support (TED) stockings, for up to 6 weeks after the operation. 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. They drain fluid from the tissues. 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 a booklet called **Understanding lymphoedema** we can send you. See page 100 for ways to order.

Tightness in the upper 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 upper inner thigh during a TUG flap.

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 when the tummy (abdomen) or thigh cannot be used.

There are two different operations that use tissue from the buttock:

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

SGAP flap, and the scar on the buttock



Who is it suitable for?

This type of reconstruction may be suitable for women who:

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

What are the limitations?

- You will have a scar on your breast and a scar on your buttock. A 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.
- There is a limit to the amount of tissue that can be taken and to the size of breast that can be reconstructed.



Table comparing breast reconstruction options

We have included a table over the next few 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 surgeries 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 a recovery time after surgery. This is when you can expect to get back to doing most normal 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 specialist nurse if there is anything you are not sure about.

	Breast implants	Back LD flaps	Tummy TRAM and MS-TRAM flaps	Tummy SIEA or DIEP flaps	Buttock SGAP or IGAP flaps	Thigh TMG or PAP flaps
Will I need an implant?	Yes	Implants may be placed behind the flap.	No	No	No	Implants occasionally used.
Average length of surgery	1 ½ to 2 ½ hours (two surgeons) 3 to 4 hours (one surgeon)	3 to 5 hours	About 4 to 6 hours	4 to 6 hours	4 to 6 hours	4 to 6 hours
Time in hospital	1 to 3 days	3 to 5 days	3 to 7 days	4 to 8 days	4 to 8 days	4 to 8 days
Recovery time	4 to 6 weeks	6 to 8 weeks	6 to 12 weeks	6 to 12 weeks	6 to 12 weeks	6 to 12 weeks
Scars	On breasts only.	Scars on breasts and scars on the back.	Scars on breasts and from hip to hip, near the bikini line.	Scars on breasts and from hip to hip, near the bikini line.	Scars on breasts and scar on upper buttocks (SGAP) or in the creases under lower buttocks (IGAP).	Scars on breasts and in the crease of the upper, inner thighs.

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 used to strengthen them.	Small risk of weakness in tummy muscles.	No change in muscle strength.	No change in muscle strength.
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 certain problems develop.	May not be suitable if you need to regularly use your arms above shoulder height. May affect ability to do: <ul style="list-style-type: none"> • sports such as climbing • racquet sports or swimming at a professional level. 	May not be suitable if you: <ul style="list-style-type: none"> • are very slim or overweight • have scars on your tummy from previous surgery • have health problems such as diabetes • smoke. 	May not be suitable if you: <ul style="list-style-type: none"> • are very slim or overweight • have scars on your tummy from previous surgery • have health problems such as diabetes • smoke. 	May not be suitable if you: <ul style="list-style-type: none"> • have health problems such as diabetes • are very overweight • smoke. 	Small risk of lymphoedema (long-term swelling) in lower leg. May not be suitable if you: <ul style="list-style-type: none"> • have health problems such as diabetes • are very overweight • smoke.



'I loved the boob but found it difficult to look at my body as a whole – I couldn't wait to have my nipple created. Once that was done I felt a lot better.'

Jazz

IMPROVING THE FINAL LOOK AND SHAPE

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Fat transfer (lipomodelling)

After breast reconstruction, there may be dents or unevenness in the outline (contour) of the new breast. This unevenness may improve over a few months. But if the breast still looks uneven, your surgeon can inject fat into your breast to improve the appearance. This is called lipomodelling, lipofilling or autologous fat grafting.

Women who have a breast implant may have lipomodelling to make the reconstructed breasts look and feel more natural. It can also be used to cover the appearance of rippling sometimes seen over implants. Lipomodelling may also make a breast reconstructed with an implant feel warmer.

In some women, lipomodelling is used before breast reconstruction. If you have had a mastectomy and radiotherapy, lipomodelling can improve the skin before reconstruction.

Lipomodelling may also be recommended if you have lost an implant. It can help to thicken the tissues before the implant is put back.

Delayed LD flap with lipofilling following radiotherapy



Lipomodelling is done as a day-case. This means you can go home the same day. It is usually done under a general anaesthetic. But it sometimes may be done with a local anaesthetic to numb the area. It involves taking fat from another part of your body and injecting it into the breast. For example, fat from the thigh, tummy or occasionally the lower back can be used. The area where the fat was taken from is likely to be bruised, sore or numb afterwards. This will get better within a few weeks.

If you have lipomodelling done many times, you can also get irregularities in the area where the fat is taken from. If this happens, let your surgeon know as these can be smoothed out.

Some of the fat injected into the breast will be absorbed into the body. For a few weeks after the operation, you should wear a non-wired, supporting bra 24 hours a day. You should also avoid strenuous exercise. This will help reduce fat loss from the breast reconstruction. You may also be advised to wear supportive underwear to reduce swelling and bruising in the areas where the fat was taken from.

Fat injections usually need to be repeated a few times. This is because of the fat loss from the breast reconstruction. How many times varies from person to person. Injecting fat more than once also helps to make sure any uneven areas are smoothed out.

Lipomodelling is not usually done until the reconstructed breast has fully healed. This usually takes about 6 to 12 months. Your reconstructive surgeon can give you more information and discuss the risks and benefits of lipomodelling.

The nipple

The nipple is often removed as part of a mastectomy. But there are times when the nipple can be kept (preserved). This is usually possible if:

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

There are two ways a surgeon may preserve 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.

Implant reconstruction after a double (bilateral) nipple-sparing mastectomy



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

Nipple reconstruction

If your nipple was removed as part of your surgery, you will usually be offered nipple reconstruction. Occasionally this is done at the same time as breast reconstruction. But it is usually done some time afterwards. This delay lets the reconstructed breast settle into its final shape so that the surgeon can position the nipple accurately.

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

Nipple reconstruction is usually done under a local anaesthetic and you can go home the same day.

Your nipple shape may be reconstructed in two 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.

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.

LD flap with implant and nipple reconstruction



Nipple/areola tattooing

If you have a new nipple shape made, you can have it and the area around it tattooed. This can be made to match the colour of the nipple and areola of your other breast. This is sometimes called micro-pigmentation.

Sometimes, the opposite nipple is also tattooed to ensure a good match.

Nipple tattooing is usually done in the hospital outpatient department.

A reconstructed breast does not have the same sensation as a natural breast. Most women 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 units 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 prosthesis

If you do not want to have nipple reconstruction or tattooing, you may choose to have a silicone nipple. 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.

Nipple prosthesis on the right breast



Ready-made nipple prostheses come in different shades and sizes. Most women find a good match with their other nipple. You can also get custom-made nipple prostheses to match your other nipple.

Surgery to the other breast

During breast reconstruction, surgeons aim 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 usually done as a second operation some months later. But sometimes it is done at the same time as mastectomy and breast reconstruction.

Surgery to the other breast may involve the following:

- **Breast reduction.** This can be done if your natural breast is larger than the reconstructed breast. The surgeon can make it smaller and change its shape so they match.
- **Breast lifting and reshaping (mastopexy).** If your natural breast is droopier 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 combined 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 having reduced sensation or loss of sensation in the nipple.

Reconstruction after breast-conserving surgery

Most women do not need breast reconstruction after an operation to remove part of their breast (breast-conserving surgery). But if you have a larger 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 later on with the appearance of the breast.

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

- as one operation (immediate reconstruction)
- as two separate operations (delayed reconstruction).

As with any breast cancer operation, it is very important to be sure that all the cancer has been removed from the breast. This is done by carefully checking the tissue taken from the breast after the operation. 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 the appearance of the breasts after breast-conserving surgery include:

- breast reshaping (mastopexy)
- partial breast reconstruction using your own tissue (mini-flap or local flap reconstruction)
- lipomodelling (fat transfer) to increase the size of the treated breast and to fill any dents.

LD mini-flap reconstructions



Breast reduction and reshaping

Breast reduction and reshaping may be an option for you 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. You can have surgery to make your other breast smaller so your breasts match. This is usually done at the same time but may be done as a second operation.

Breast reduction and reshaping can:

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

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 flap of tissue from another part of the body
- with lipomodelling.

These procedures are only available in some breast units.

'I feel so lucky. When I am wearing underwear you would not know what my poor body had been through – it really is amazing.'

Jazz



AFTER YOUR OPERATION AND RECOVERY

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Recovery after your operation

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

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

If you are having reconstructive surgery using tissue flaps, you will also have a catheter to drain urine from your bladder. This will be taken out once you are able to get up and move around.

Immediately after surgery, your wound may be covered with dressings or sticky plastic strips. These are left in place until the wound has healed.

Your reconstructed breast will be swollen to begin with. The swelling gradually gets better over a few weeks.

If you have breast reconstruction using your own tissue, 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 circulates warm air over you. Or you may have thick gauze pads over the breasts.

There will be drainage tube(s) coming out of the wound(s). These will be attached to a small container to collect any excess blood or body fluid. A nurse will remove them a few days after the operation.

Once you are up and moving, your surgeon or nurse will tell you whether you should keep the area dry or if you can gently shower the wound with clean water.

Pain or discomfort

After any type of operation, you will have some pain or discomfort. Some women need painkillers for a few weeks after surgery. Make sure you ask for pain-relieving medicines if you need them. This will help you recover more quickly.

Numbness

You will usually have some numbness or pins and needles across your chest or reconstructed breast. You may also have numbness under your upper arms.

These symptoms improve over months to years, but it is common to have some permanent numbness. Most people adjust to this over time.

Constipation

Constipation is common after surgery. Here are some tips that can help:

- Drink plenty of fluids.
- Increase the amount of fibre in your diet.
- Eat fruit and vegetables.

Some painkillers can cause constipation. You may need to take laxatives while you are on these. Your doctor can prescribe these for you or you can get them from your local chemist.

Wearing a bra

You may be advised to wear a bra to support your newly reconstructed breast. A soft, supportive bra without underwires will be more comfortable to begin with. Ask your breast care nurse for advice.

If you have reconstruction with an implant, you may be given a Velcro® band to wear for several weeks. This sits on top of the implant and helps make sure they stay in the correct position. You should wear this during the day and at night.

Exercises

Your physiotherapist or breast care nurse 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 to do the exercises suggested. You will also be given specific exercises to do if you have had surgery to another part of your body, such as your tummy.

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 had immediate or delayed reconstruction.

If you have a breast implant, you may be in hospital for up to 3 days. After an operation using a tissue flap you may be in hospital for up to 7 days.

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. After this, you can start doing more and gradually increase your level of activity. Avoid strenuous housework such as vacuuming. Just do light tasks to begin with and slowly build up from there. Don't move or lift anything heavy for a few weeks until your surgeon says it is okay to do so. This includes lifting babies or children.

Possible complications after surgery

Most complications are mild and can be treated. But some women have more serious or long-term problems. Smoking, being overweight or having diabetes can increase this risk.

Bruising and bleeding

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

In some women, 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 carry away the blood. But if the bleeding continues, some women need an operation to stop the bleeding and remove the haematoma.

Blood clots

Surgery and bed rest increase the risk of developing a blood clot in the legs after breast surgery. This is called deep vein thrombosis (DVT). You will usually be given compression stockings to wear to try to prevent DVT. You will also be encouraged to move around as soon as possible after the operation. Some women 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.

If this happens, it may be left to settle on its own. Or 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 be delayed. This may be because of infection. Or there may not be a good blood supply to the wound.

Smoking, radiotherapy or being very overweight can delay wound healing. Stopping smoking (if you smoke) and eating a healthy, balanced diet with enough protein and vitamin C helps tissues heal.

Infection

When you go home after your operation, check your wound(s) regularly. Tell your breast care nurse or surgeon immediately if you have any signs of infection, such as:

- redness or change in colour over the breast, around the scar area or both
- fluid being released (discharge) from the wound
- a fever (a temperature above 38°C or 100.4°F)
- uncontrollable shivering (rigors)
- feeling generally unwell.

Your doctor can prescribe antibiotics to treat an infection. If you have an implant, you may need to go into hospital for observation. You may have to have antibiotics given into a vein.

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 an immediate reconstruction, your doctors will wait until your breast has healed before starting chemotherapy. This is to reduce the risk of infection.

If you feel unwell or have any signs of infection in your breast or elsewhere after starting chemotherapy, contact the chemotherapy team immediately for advice. Your chemotherapy nurse will tell you about the signs of infection to look for.

Raised, thickened scars

In a small number of women, tissue along the scars may become thickened and red. This makes the scar wider and look raised above the skin.

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

Chronic pain

Pain usually gets better in the weeks following surgery. But occasionally, women continue to have pain for months or even years after the operation.

Pain that continues for a long time is called chronic pain. There are several different causes of chronic pain, and many of these can be treated. If you have pain that does not improve, tell your breast surgeon. They can do tests to find out the cause or recommend a treatment to help.



Recovering at home

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 gradually build up the amount of times you look at and feel your breast. 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.

Sex

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

Having breast reconstruction will create a new breast shape. But the sensations in the breast and nipple will not be the same as before. If you were previously aroused by having your breasts touched, you may find that your sexual arousal is affected.

Take things at your own pace. If you have a partner, talk to them about any concerns you have. Some women feel nervous about how their partner will react to their body. It may take some time for you to feel comfortable talking about your surgery and showing them your reconstructed breast.

Sometimes a partner may worry about touching the reconstructed breast, because they think they may hurt you. It can help for you and your partner to talk about how you feel and any fears you have. Your breast care nurse can also advise you.

Looking after your skin

Your wounds may feel itchy after your operation. But 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 and 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 quite firm and may be slightly raised. If you have lighter skin they will be red, and if you have dark skin they will be darker.

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

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

There are specific scar treatments that can help the scars settle and fade. It is very important to protect your scars from the sun. Use a suncream with a high sun protection factor (SPF) of at least 50 if any area of scarring is exposed to the sun. You may be advised to do this for up to 2 years.

Work

When you can return to work depends on the type of work you do and the type of operation you had. If your job does not involve heavy manual work, you should be able to go back to work sooner. You are likely to feel more tired than usual for a while. You may find it difficult to concentrate fully at first.

Driving

You can usually start driving again:

- once you can use the gear stick and handbrake
- as long as you can do an emergency stop and move the steering wheel suddenly if necessary.

Some women are able to drive within a few weeks after surgery. Others find it takes longer. Insurance companies often have their own guidelines about when you can drive again after an operation. You should check this with your car insurance company.

If you are not happy with the results

The way you feel about your breast reconstruction will depend partly on what you expect from the surgery. Make sure you discuss your expectations with your surgeon before you decide to have the surgery.

It takes several months for the breasts to settle into their final shape. So the way you feel about the appearance of your breasts may change over time. It can take up to 2 years for swelling to settle, wounds to heal and redness to fade.

'It took me a long time to accept my breast but with the help of lovely people on the Online Community, I got there. I really quite like it now. It all takes time and the real emotional recovery starts when treatment finishes.'

Ronni

If you have concerns about your reconstructed breast, talk to your surgeon or breast care nurse. It usually takes more than one operation to achieve 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 be referred to another surgeon for a second opinion.

How you judge the success of breast reconstruction may be different from how a surgeon will think about it. Sometimes exploring feelings about your breasts, the surgery and reconstruction can be more helpful than another operation. A psychologist or counsellor can help you to do this and focus on what feels right for you.

Mammograms and checking your breasts

Mammograms

You will not usually need to have mammograms of the reconstructed breast after a mastectomy. But you will be invited to have regular mammograms of the other breast. If you have had 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 can advise you on how any possible recurrence of cancer can be found.

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 both your natural breast and your reconstructed breast for any abnormalities or changes. Your doctor will also regularly examine your breasts after your reconstruction.

It may take some time for you to get used to the feel and look 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.

Having a mammogram



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 not removed)
- a rash or swelling on the nipple or the areola (if not removed)
- pain or discomfort.

There can be other causes for these changes other than cancer. But it is important to tell your nurse or doctor if you find anything that concerns you. They will examine you and arrange tests to check for anything unusual. These can include an ultrasound, MRI scan or biopsy.

Your feelings

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

It is also normal to have some concerns about how you see and feel about your body (body image). For example, the change in your breast shape will take some time to get used to. At first, your reconstructed breast might not really feel like you. It will take some time to get used to your new 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 (see pages 105 to 108) can help you talk about and deal with your feelings.

Our booklet **Body image and cancer** has more information about coping with changes to your body after surgery. See page 100 for ways to order.



'There are lots of resources available and my advice is to look them up and see what they offer. Ask questions, seek advice and weigh up options.'

Jazz

FURTHER INFORMATION

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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 leaflets or booklets like this one. Visit **be.macmillan.org.uk** or call us on **0808 808 00 00**.

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

Online information

All of our information is also available at **macmillan.org.uk/information-and-support**

There you'll also find videos featuring real-life 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
- eBooks
- large print
- translations.

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

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



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 you feel and sharing your concerns can really help.

Macmillan Support Line

Our free, confidential phone line is open 7 days a week, 8am to 8pm. Our cancer support specialists 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.

Call us on **0808 808 00 00** or email us via our website, **macmillan.org.uk/talktous**

Information centres

Our information and support centres are based in hospitals, libraries and mobile centres. There, you can speak with someone face to face.

Visit one to get the information you need, or if you would like a private chat, most centres have a room where you can speak with someone alone and in confidence.

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

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's why we help to bring people together in their communities and online.

Support groups

Whether you are someone living with cancer or a carer, 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**

The Macmillan healthcare team

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.

'Everyone is so supportive on the Online Community, they know exactly what you're going through. It can be fun too. It's not all just chats about cancer.'

Mal

Help with money worries

Having cancer can bring extra costs such as hospital parking, travel fares and higher heating bills. If you've been affected in this way, we can help.

Financial guidance

Our financial team can give you guidance on mortgages, pensions, insurance, borrowing and savings.

Help accessing benefits

Our benefits advisers can offer advice and information on benefits, tax credits, grants and loans. They can help you work out what financial help you could be entitled to. They can also help you complete your forms and apply for benefits.

Macmillan Grants

Macmillan offers one-off payments to people with cancer. A grant can be for anything from heating bills or extra clothing to a much-needed break.

Call us on **0808 808 00 00** to speak to a financial guide or benefits adviser, or to find out more about Macmillan Grants. We can also tell you about benefits advisers in your area. Visit **[macmillan.org.uk/financialsupport](https://www.macmillan.org.uk/financialsupport)** to find out more about how we can help you with your finances.

Help with work and cancer

Whether you're 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](https://www.macmillan.org.uk/work)**

Other useful organisations

There are lots of other organisations that can give you information or support.

Breast cancer organisations

Asian Women Cancer Group

Tel 07934 591384

Email info@

asianwomencancergroup.co.uk

www.

asianwomencancergroup.co.uk

Helps women of all cultures who have been affected by breast cancer. Provides emotional support and financial guidance.

Breast Cancer Haven

Tel 020 7384 0000 (London)

Email info@thehaven.org.uk

www.breastcancerhaven.org.uk

Havens are day centres providing support, information and complementary therapies before, during or after cancer treatment. They have a network of centres across the UK. Details of other UK Haven centres are on the website.

Breast Cancer Now

Tel 0800 800 6000

(Mon to Fri, 9am to 4pm,
Sat, 9am to 1pm)

www.breastcancernow.org

Provides information and support for anyone affected by breast cancer. Specialist breast care nurses run the helpline. Also committed to fighting breast cancer through research and awareness.

General cancer support organisations

Cancer Black Care

Tel 020 8961 4151

Email info@cancerblackcare.org.uk

www.cancerblackcare.org.uk

Offers UK-wide information and support for people with cancer, as well as their friends, carers and families, with a focus on those from BME communities.

Cancer Focus

Northern Ireland

Helpline 0800 783 3339

(Mon to Fri, 9am to 1pm)

Email nurseline@cancerfocusni.org

www.cancerfocusni.org

Offers a variety of services to people affected by cancer in Northern Ireland, including a free helpline, counselling and links to local support groups.

Cancer Research UK

Helpline 0808 800 4040

(Mon to Fri, 9am to 5pm)

www.cancerresearchuk.org

A UK-wide organisation that has patient information on all types of cancer. Also has a clinical trials database.

Cancer Support Scotland

Tel 0800 652 4531

(Mon to Fri, 9am to 5pm)

Email info@cancersupportscotland.org

cancersupportscotland.org

www.cancersupportscotland.org

Runs cancer support groups throughout Scotland. Also offers free complementary therapies and counselling to anyone affected by cancer.

Macmillan Cancer Voices

www.macmillan.org.uk/cancervoices

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**Email** enquiries@maggies.org**www.maggies.org**

Has a network of centres in various 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**Helpline** 0303 3000 118

(Mon to Fri, 10am to 1pm)

Email helpline@pennybrohn.org.uk**www.pennybrohn.org.uk**

Offers a combination of physical, emotional and spiritual support across the UK, using complementary therapies and self-help techniques.

Tenovus**Helpline** 0808 808 1010

(Daily, 8am to 8pm)

Email info@tenovuscancercare.org.uk**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.

Counselling and emotional support

British Association for Counselling and Psychotherapy (BACP)

Tel 01455 883 300

Email bacp@bacp.co.uk

www.bacp.co.uk

Promotes awareness of counselling and signposts people to appropriate services across the UK. You can search for a qualified counsellor at **itsgoodtotalk.org.uk**

College of Sexual and Sexual and Relationship Therapists (COSRT)

Tel 020 8543 2707

Email info@cosrt.org.uk

www.cosrt.org.uk

Has a directory of therapists to help members of the public find professional support in their local area.

Relate

Email [relate.enquiries@](mailto:relate.enquiries@relate.org.uk)

relate.org.uk

www.relate.org.uk

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

LGBT-specific support

LGBT Foundation

Tel 0345 330 3030

(Mon to Fri, 9am to 9pm, and Sat and Sun, 10am to 6pm)

Email helpline@lgbt.foundation

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.

Cancer registries

The cancer registry

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 one in each country in the UK:

National Cancer Registration and Analysis Service

Tel 0207 654 8000

Email enquiries@phe.gov.uk

www.ncras.nhs.uk

Tel (Ireland) 021 4318 014

www.ncri.ie

Scottish Cancer Registry

Tel 0131 275 7050

Email nss.csd@nhs.net

www.isdscotland.org/health-topics/cancer/scottish-cancer-registry

Welsh Cancer Intelligence and Surveillance

Unit (WCISU)

Tel 0292 037 3500

Email general.enquiries@wales.nhs.uk

www.wcisuwales.nhs.uk

Northern Ireland Cancer Registry

Tel 0289 097 6028

Email nicr@qub.ac.uk

www.qub.ac.uk/nicr

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: Jayne Knight, Breast Reconstruction Nurse Specialist; Ms Katherine Krupa, Consultant Breast Surgeon; Rebecca Spencer, Macmillan Breast Reconstruction Nurse Specialist; Christina Summerhayes, Consultant Breast Surgeon; and Mrs Eva Weiler-Mithoff, Consultant Plastic and Reconstructive Surgeon.

Surgical photos supplied by: Professor Mike Dixon, Elaine Sassoon and Calliope Valassiadou. Thanks also to the people affected by cancer who reviewed this edition, and to those who shared their stories.

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

Sources

We have listed a sample of the sources used in this publication below. If you would like further information about the sources we use, please contact us at **cancerinformationteam@macmillan.org.uk**

National Institute for Health and Care Excellence (NICE). Early and locally advanced breast cancer: diagnosis and management. Guidelines. July 2018.

National Institute for Health and Care Excellence (NICE). Breast reconstruction using lipomodelling after breast cancer treatment. 2012.

Can you do something to help?

We hope this booklet has been useful to you. It's just one of our many publications that are available free to anyone affected by cancer. They're 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're there 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.



Share your cancer experience

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

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.

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?

Raise money

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

Give money

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

Call us to find out more

0300 1000 200

macmillan.org.uk/getinvolved

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

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Signature

Date / /

Don't 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'd rather donate online go to macmillan.org.uk/donate

Please cut out this form and return it in an envelope (no stamp required) to:
Supporter Donations, Macmillan Cancer Support, FREEPOST LON15851,
89 Albert Embankment, London SE1 7UQ

This booklet is for anyone who is thinking about having breast reconstruction.

The booklet explains what breast reconstruction is. It talks about the different options for breast reconstruction, and the possible benefits, limitations and risks of each type of surgery. We also talk about some of the physical and emotional issues you might experience, and ways to cope with these.

We're here to help everyone with cancer live life as fully as they can, providing physical, financial and emotional support. So whatever cancer throws your way, we're right there with you. For information, support or just someone to talk to, call **0808 808 00 00** (7 days a week, 8am to 8pm) 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 NGT (Text Relay) on **18001 0808 808 00 00**, or use the NGT Lite app.

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

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CANCER SUPPORT**

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