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About this booklet

This booklet is for you if you are thinking about whether or not to have breast reconstruction.

It aims to help you understand what breast reconstruction is and the possible benefits and difficulties there are with this type of surgery. We talk about some of the physical and emotional issues you may experience, and give suggestions to help you cope with them.

We describe the different types of breast reconstruction and list the benefits and limitations of each. We’ve also included photographs of women who’ve had surgery, so you can see how a reconstruction may look. But these don’t necessarily show what is possible in your case. Your surgeon or breast care nurse can tell you what’s most likely in your situation.

In this booklet, we’ve included some comments from women who have had (or considered having) breast reconstruction, which you might find helpful. Some comments are taken from the website healthtalkonline.org and others are from our online community, which you can visit at macmillan.org.uk/community Some names have been changed.

This booklet only gives an overview of breast reconstruction. It’s important to talk about it with your surgeon and breast care nurse before making any decisions about it.

Reactions to losing a breast vary and not all women want to have breast reconstruction. Every woman’s needs are different. Give yourself plenty of time to consider the possible benefits, limitations and risks before deciding what you want to do.
We hope this booklet answers some of your questions and helps you deal with some of the feelings you may have. We’ve also listed other sources of support and information, which we hope you’ll find useful.

If you’d like to discuss this information, call the Macmillan Support Line free on 0808 808 00 00, Monday–Friday, 9am–8pm. If you’re hard of hearing, you can use textphone 0808 808 0121, or Text Relay. For non-English speakers, interpreters are available. Alternatively, visit macmillan.org.uk

Turn to pages 84–91 for some useful addresses, helpful books and websites. You can write down any notes or questions for your doctor or nurse on page 92.

If you have found this booklet helpful, you could pass it on to your family and friends. They may also want information to help them support you.
‘I was definitely against it at the time. But, as time goes on, you do think “maybe”.’

Bethany
YOUR CHOICE

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What is breast reconstruction?

Breast reconstruction is surgery to replace your breast shape after a mastectomy. A mastectomy is an operation to remove the whole breast (or as much breast tissue as possible). Breast reconstruction can be done at the same time as a mastectomy (immediate reconstruction), a few months afterwards, or even years afterwards (delayed reconstruction).

The aim of reconstruction is to match your new breast to your other breast as closely as possible. This usually involves more than one operation. The first operation creates a breast shape. Then, further procedures may be done to improve the appearance of your breast and to achieve a good match with the other one. You may also be offered surgery to your other breast so they both match.

The new breast shape can be made with a breast implant, or by using tissue taken from another part of your body, or a combination of both. Your surgeon will advise you on the type of reconstruction that is 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. It’s normally done a few months later when the new breast has settled into its final shape.

Women who have part of their breast removed (lumpectomy) usually don’t need a full breast reconstruction. But, if the appearance of the breast isn’t right after a lumpectomy, some of the techniques described in this booklet can be used to help.
Thinking about breast reconstruction

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

It’s important you feel happy with your decision. You can discuss it with your surgeon, breast care nurse, family or friends. There are also support organisations that can help (see pages 84–87).

If you have had, or are going to have, a mastectomy as part of your cancer treatment, you are entitled to free breast reconstruction on the NHS. There are many options for breast reconstruction available.

It’s important that you have the chance to discuss your options for breast reconstruction before your mastectomy. You don’t have to make a definite decision about it at this stage, but it will help the surgeon to plan your initial surgery.

Our booklet *Understanding breast cancer* discusses the types of surgery used to treat breast cancer.
Women have breast reconstruction for different reasons. You may choose it so that you won’t need to wear a false breast (breast prosthesis/form), or you may feel that breast reconstruction will help you feel more confident or feminine.

‘Because I’m such an active person, I don’t want this false boob in my bra all the time. It’s inconvenient.’

Mary

Or, you may decide that you feel comfortable wearing a breast prosthesis and that you don’t want to go through the additional surgery and recovery that breast reconstruction involves. Some women plan to have reconstructive surgery after their treatment but then change their minds. They find that the loss of a breast doesn’t trouble them as much they thought it would.

‘I haven’t really considered reconstruction because I think it must be quite difficult to get you looking exactly the same as you were. And I’d never feel it was me really, so I’m quite happy just having the prosthesis.’

Tamsin
Sometimes women decide years after breast cancer surgery that they feel ready to have reconstruction.

‘It would be nice to have some cleavage and to be able to wear lower necklines.’

Nadia

If you decide to have it done, you will need to think about the timing of the surgery. It may be possible to have it at the same time as your mastectomy so that you will have a breast shape immediately after the operation. Or you may prefer to finish your cancer treatment first before going ahead with reconstruction. You can read more about when to have breast reconstruction on pages 12–14.

Other factors may also affect your decisions about reconstruction, such as your general health, relationships, commitments and priorities.

It’s important to have realistic expectations about the possible results of breast reconstruction. It can’t give you a perfect breast. A reconstructed breast won’t have as much sensation and may not ‘move’ as well as your natural breast. Your surgeon will aim to make the new breast as good a match as possible to your other breast, but there may be differences in the size, shape or position of the two breasts. In general, most women are pleased with the results of their surgery, but some women are disappointed.
A typical appearance after a mastectomy

Breast reconstruction usually involves having two or more operations over a period of 6–12 months to get the best appearance for your new breast.

Breast reconstruction doesn’t increase the chance of the cancer coming back. And it doesn’t interfere with your doctors’ ability to detect the cancer if it comes back in the breast area.

‘I had my reconstruction 23 years ago and have had no problems.’

Ruth

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

• In clothes (including underwear and swimwear), your appearance will be similar to what it was before.

• You won’t have to wear external breast prostheses or a special bra.

• You will have a cleavage and be able to wear clothes with low necklines.

• It can help to restore your self-confidence and feelings of femininity, attractiveness and sexuality.

Limitations

• You will spend more time in hospital and your recovery will take longer.

• Most women need several visits to the hospital and further minor operations to get the best cosmetic results.

• As with all operations, problems may occur. See pages 68–71 for information about possible problems following breast reconstruction surgery.

• You’re unlikely to have much sensation in the new breast.

• You may have scars elsewhere on your body (depending on the type of reconstruction – see pages 22–53).

• You may not be pleased with the result.

• You may need to have an operation on your other breast to reduce or increase its size, or to lift it so that both breasts are even.
Understanding breast reconstruction

When to have breast reconstruction

Reconstruction can be done at the same time as a mastectomy, or months or even years afterwards.

**Immediate reconstruction**
An immediate reconstruction is done at the same time as the mastectomy. With this operation, it is often possible for the surgeon to leave most of the breast skin when removing the breast tissue.

The surgeon removes the nipple and areola (the dark area around the nipple) and just a small circle of skin around it (skin-sparing mastectomy). This gives a more natural-looking reconstructed breast with less scarring than delayed reconstruction, where all the spare skin is removed during the mastectomy. Sometimes, it is possible to preserve the nipple too (nipple-sparing mastectomy) – see pages 56–57.

‘I decided not to go for a reconstruction. I wasn’t very happy about having a foreign part in my body. I wasn’t very keen to have a muscle cut and moved within my body. I felt that was too big a price to pay.’

Colleen
Benefits

• Immediate reconstruction often gives a better appearance than delayed reconstruction.

• There’s less scarring afterwards than with delayed reconstruction.

• You won’t be without a breast shape at any time.

Limitations

• If you have radiotherapy to your breast after reconstruction, it may affect the appearance of the reconstructed breast. If your doctors think you may need radiotherapy, they may suggest delayed breast reconstruction.

• Immediate reconstruction involves a longer operation and recovery time.

• Other treatments needed after your surgery (such as chemotherapy or radiotherapy) could be delayed if your recovery takes longer due to problems such as infection. But, this is uncommon.

• You may have to wait longer to have your mastectomy if two teams of surgeons are involved.

Delayed reconstruction
Delayed breast reconstruction can be done after you have fully recovered from the mastectomy and any other treatments such as chemotherapy and radiotherapy. After radiotherapy, there is usually a delay of about 6–12 months before reconstructive surgery is done. This allows the skin over the chest to recover.
There is no upper time limit for having delayed breast reconstruction. Some women choose to have it done many years after a mastectomy.

**Benefits**

- Delayed breast reconstruction is always available – even years after your original surgery.
- Having your surgery in stages means a shorter recovery after each procedure.
- There is no risk of reconstructive surgery causing delays to other cancer treatments.
- You have more time to think about whether reconstruction is right for you.
- You can deal with your cancer treatment first, and then think about reconstructive surgery.

**Limitations**

- You will have more scars.
- You won’t have a breast shape for a period of time.
- The result may not be as good as it would be with an immediate reconstruction.
- You will need at least one additional operation and anaesthetic.
- You will be a patient again for a while.
Talking with your surgeon

Breast reconstruction is specialised surgery. Surgeons who perform this type of operation may be plastic surgeons or oncoplastic surgeons. In general, plastic surgeons will carry out reconstruction after a breast surgeon has removed the cancer in the breast with a mastectomy. Oncoplastic surgeons are trained in both breast cancer surgery and reconstruction surgery, so they can perform both types of operation.

Some types of breast reconstruction operations need to be carried out by a surgeon who is skilled in microsurgery (a reconstructive plastic surgeon). Microsurgery is performed using a microscope, which helps the reconstructive surgeon see very fine blood vessels that need to be joined. You may need to travel to your regional plastic surgery unit, which may be some distance from your home, to have this type of operation.

You can ask your breast cancer surgeon or specialist nurse if there is a surgeon in your hospital who carries out breast reconstruction. If there’s not, your surgeon can refer you to a reconstructive specialist at another hospital.

When you see your surgeon, you can ask them about their experience in breast reconstruction. You can also ask to see photographs of reconstructions they’ve done. This can help to give you an idea of what may be possible with the surgery. Your surgeon or specialist nurse may also be able to put you in contact with women who have had breast reconstruction so you can talk to them about it.

You may also want to discuss breast reconstruction with other 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 your surgeons. There are some here you may want to ask and you can write any more questions you have on page 92. Both your breast surgeon and your reconstructive surgeon will be sensitive to your thoughts and feelings about breast reconstruction, so don’t be afraid to ask about anything you’re concerned about.

Some questions you might want to ask your breast surgeon:
• What type of reconstructive surgery would you recommend for me and why?

• What are the benefits, limitations and risks of this surgery?

• When is the best time for me to have a reconstruction?

• Where can I have this surgery?

• Who can do this type of surgery?

‘I was shown realistic photos of women at my appointment. There was a scrapbook of “before and after” photos with each type of reconstruction and the negative points, such as the scarring, for each. It was very helpful.’

Chris
Some questions you may want to ask your reconstruction surgeon:
• What experience do you have in this type of surgery?

• What can I expect my reconstructed breast to look and feel like: immediately after surgery, six months after surgery, a year after surgery?

• What will the scar(s) be like?

• How long will I need to stay in hospital for?

• How long will my recovery take?

• What do I need to do to help my recovery?

• Can I see pictures of the results of the different types of operations?

• Can I talk to someone who has had this type of operation?

‘I went to see the plastic surgeon twice because I couldn’t make a decision the first time.’

Roxanne
Giving your consent

Before you have any operation, your surgeon will explain its aims. They will ask you to sign a form giving your permission (consent) for the surgery to take place. Before giving your consent, you should receive full information about:

- the type and extent of the surgery you are advised to have
- the advantages and possible disadvantages
- any other types of surgery that may be suitable for you
- possible complications and any significant risks or side effects.

If you don’t understand the information you have been given, let the staff know straight away so they can explain again. Breast reconstruction can be complex, so it’s not unusual for people to need repeated explanations.

It’s often a good idea to have a relative or friend with you when the surgery is explained, to help you remember the discussion more clearly.

People sometimes feel that hospital staff are too busy to answer questions, but it’s important for you to be aware of how your treatment might affect you. Your surgeon and breast care nurse should allow time for you to ask questions. You can ask for more time to decide if you feel you can’t make a decision when the surgery is first explained to you, especially if you’re having a delayed reconstruction. You may need to make a decision more quickly if you’re having an immediate reconstruction. But, it’s still very important to be as sure as possible that you are satisfied with your decision.
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Types of breast reconstruction

There are three main types of breast reconstruction:

• **Reconstruction using a breast implant (see pages 23–35)**  
  This is when an implant is placed under the skin and muscle that covers your chest to create a breast shape.

• **Reconstruction using your own tissue (see pages 35–51)**  
  This is when skin, fat and sometimes muscle from another part of your body is used to make a new breast. This type of operation is more complex than using an implant.

• **Reconstruction using both an implant and your own tissue**  
  This is when the surgeon creates a breast shape using both an implant and skin, fat and sometimes muscle taken from another part of your body.

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

• how much of your breast tissue has already been removed

• how healthy the tissue is on your breast and on other areas of your body that may be used (donor sites)

• whether you’ve had radiotherapy to the breast area or chest wall

• the shape and size of your breasts

• your preference

• your general health and body build.
Using an implant

This method is often used for immediate breast reconstruction and for women having both their breasts reconstructed.

Breast implants are made of a silicone outer cover with either silicone gel or salt water (saline) inside. They come in a range of sizes and can be tear-drop or round in shape. The outer surface may be smooth or textured.

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

One-stage procedure
In a one-stage procedure, either an implant on its own or a special type of implant called an expandable implant is put under your chest muscle.

Implant alone
If you have had a skin-sparing mastectomy (see page 12), the muscle in your chest wall may not need to be stretched. Your surgeon may be able to put in a permanent silicone implant without the need for an expandable implant.

Expandable implant
An expandable implant has an outer chamber of silicone gel and an inflatable, hollow inner chamber with a valve (port). Salt water (saline) can be injected through the valve into the hollow inner chamber to expand it. This stretches the muscle covering the expander to form the new breast shape.

After an operation to place the expandable implant under your chest muscle, it takes a few weeks for the tissue to heal. Then the process of gradually stretching your muscle to form your new breast begins.
You will have appointments at the outpatient clinic every 1–2 weeks, where a nurse or doctor injects salt water (saline) into the expandable implant through a valve just under the skin of your underarm. This only takes a few minutes each time. You may feel some aching or tightness in the breast area for a day or two after each injection, but it should not be painful. This process continues over several weeks.

Sometimes an expandable implant is over-inflated slightly to allow the muscle to stretch.

Once the skin has fully stretched, some saline is removed through the valve until the size of the new breast matches the other breast. Slightly overstretching the muscle will help the new breast have a more natural appearance.

The surgeon then takes the valve out during a small operation carried out under a local anaesthetic.

‘Yesterday I went back to have some of the saline taken out. And that makes them a little bit smaller – the size I want now. They are softer like they were before. The recovery was good. I’m very pleased with the results.’

Harjinder
(Had expandable implants in both breasts)
Two-stage procedure
In a two-stage procedure, a temporary tissue expander is put under the chest muscle to stretch it. A temporary tissue expander has a hollow inner chamber, but not a silicone gel outer chamber like a permanent expandable implant.
Using a butterfly needle, a nurse or doctor injects salt water into the expander through a valve just under the skin of the chest. This increases its size and stretches the chest muscle to form the breast shape.

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

You will then have a second operation to have the implant taken out and a permanent silicone implant put into the space under your chest muscle (see the diagram on the next page). This gives you your final breast shape.
After there has been complete healing from the one- or two-stage implant procedure, a further procedure can be done to create nipples, if desired. There is more detailed information about this on page 57.

Women who have implants may also benefit from a new procedure called lipomodelling (see page 56). Lipomodelling can be used to improve the shape and appearance of the breast.
Both these women have had reconstruction of both breasts with expandable implants. The photograph on the right also shows nipple reconstruction (see page 57).

This woman had a bilateral mastectomy (both breasts removed) followed by breast reconstruction using implants (without nipple reconstruction).
New methods in implant surgery
Sometimes the surgeon may use a type of mesh called an acellular dermal matrix (ADM) to help support an implant. ADM is a tissue-like substance made from pig skin, cow skin or other natural substances.

The surgeon attaches the mesh to the chest (pectoral) muscle and the chest wall to create a sling. This holds the lower part of the implant in place and helps to give the breast a natural droop.

ADM materials are new in breast reconstruction and are not used by every breast surgeon. Your surgeon can talk through the possible advantages and disadvantages of it with you.

Are implants suitable for me?
Implants may be suitable for women who:

• are having surgery to reconstruct both breasts at the same time

• may not be fit enough for longer operations

• want to have an immediate reconstruction but who will need to have radiotherapy after a mastectomy. In this situation, a temporary implant may be used to preserve the skin. Breast reconstruction using tissue from another part of the body may then be used to reconstruct the breast shape after radiotherapy.

Implants are not usually suitable for women who have:

• concerns about implants

• had radiotherapy to the chest.
Benefits

- Having an implant put into the breast is a simple operation that usually lasts 2–3 hours. It has a slightly shorter recovery time than other types of reconstruction.

- It leaves less scarring on the breast and no scars elsewhere on your body.

- The breast outline can look balanced in clothes.

- It can give a good appearance, particularly for women with small breasts or women having both breasts reconstructed.

Limitations

- You may need several visits to the hospital for tissue expansion over the course of a few months.

- The operation will leave a scar. If the implant is being put in as a delayed reconstruction, the surgeon may re-use the mastectomy scar to avoid making a new scar.

- Up to 10% of women (1 in 10) who have breast reconstruction using implants may need to have the implants taken out due to infection or problems with wound healing.

- Implants don’t feel as soft or as warm as a breast formed using your own tissue.

- The new breast may not have the same droop as the natural breast and can sit higher than your natural breast.
• In a bra, the new breast may look fuller above the bra line. A breast that is reconstructed with an implant is slightly flatter and so won’t fill the tip of the bra as well as your natural breast.

• The implant can change shape slightly when the muscle over the implant tightens (contracts) during some movements.

• Some women may be able to see a rippling effect through their skin caused by creasing or folds in the implant.

• Reconstructed breasts have little or no sensation (they feel numb).

• You may need surgery in the future to keep your breasts looking balanced (symmetrical). For example, over time the natural breast may droop more than the new breast. Gaining or losing a lot of weight can also make a difference to the shape of your breasts.

• You may need surgery to replace implants if they leak (rupture) or cause tightening of the scar around the implant (capsular contracture – see page 32).

**Risks**
After any operation, there is a risk of problems immediately afterwards, such as bleeding, pain, infection and bruising. You can read more about these problems on pages 68–71.
Most women don’t have many problems, but possible problems include the following.

**Infection**
It’s uncommon 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’ll be given antibiotics at the time of your operation to reduce the risk of infection.

If an implant needs to be removed due to infection, the final appearance of the reconstructed breast may not be as good.

**Tightening or hardening of tissue around the implant (capsular contracture)**
A breast implant is not a natural part of you, so your body tries to keep it separate. It does this by forming a ‘capsule’ of scar tissue around the implant. Over a few months, the scar tissue shrinks (contracts) as part of the natural healing process. In about 10% of women (1 in 10), the capsule can become very tight. This is called capsular contracture. If it happens, your breast may feel hard, painful or change shape. Sometimes an operation is needed to remove the implant and replace it with a new one. A new procedure called lipomodelling (see page 56) can also sometimes be used to help with capsular contracture.

Smoking, infection and radiotherapy increase the risk of capsular contracture.

**Damage (rupture) to implants**
It is very difficult to damage implants. It’s fine to continue with your normal activities, including sports and air travel, without worrying that it will affect your implant. However, sometimes implants can split or tear. Most silicone implants contain a firm gel that is very unlikely to leak in significant amounts, even if the outer cover is damaged.
Saline-filled implants aren’t commonly used in the UK, as they’re more likely to leak and don’t look or feel as natural as silicone implants. If saline leaks out of an expander device, it won’t cause any harm. But, the implant will go flat and need to be replaced.

**Safety of silicone breast implants**
A lot of research in different countries has been carried out to look into whether silicone implants cause health problems. No link has been found between silicone implants and the development of cancer or other conditions.

Recent concerns have focused on the quality of the silicone used to fill breast implants after French-made PIP breast implants were found to contain industrial- rather than medical-grade silicone filler. There were concerns that these implants could have a higher rate of rupture than other implants and a toxic effect if the unapproved silicone filling leaked out. Evidence shows that PIP implants are more likely to rupture than other implants, but there is no evidence that they can cause harm to health. PIP implants have not been used in the UK since 2010.

To comply with safety standards, all breast implants that are used in the UK must first 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’re concerned about having breast implants, it’s important to discuss this with your surgeon before your surgery. They’ll be able to tell you what type of implants you’ll have and who makes them.

**Implants and mammograms**
Implants can make mammograms (breast x-rays) more difficult to read. If you have had a mastectomy, you won’t need to have mammograms of the reconstructed breast, but you may have...
Creating the breast shape

an implant put into your other breast to balance the look of your breasts. Alternatively, you may have an implant put in after breast-conserving surgery (when not all of the breast is removed). In this case, you should continue to have mammograms of the reconstructed breast.

You will need to tell the person doing the mammogram (usually a radiographer) that you have an implant. This is so they can use the most appropriate screening method for you.

**Using your own tissue**

Breast reconstruction that uses your own tissue is called flap reconstruction. This type of reconstruction is more complex than implant reconstruction. It involves transferring a flap of skin, fat and sometimes muscle from another part of your body (the donor site) to your chest wall to create a breast shape. The flap is usually taken from either your back or tummy (abdomen).

Flap reconstruction can be used to create a new breast after a mastectomy, or to replace breast tissue that has been taken away during a lumpectomy (wide local excision).

This type of reconstruction may be suitable if you:

- have had or need radiotherapy as part of your treatment
- can’t have an implant or tissue expansion because the chest skin and muscle is too tight, or because a lot of skin and muscle has been removed from the breast
- have large or droopy breasts and don’t want to make your breasts smaller
- do not want a breast implant.
Benefits

- Reconstruction using your own tissue gives a more natural shape and feel to the reconstructed breast.
- It’s suitable if you have small or large breasts.
- It can create a breast with a more natural droop.
- It means you can often avoid having an implant.

Limitations

- The operation will leave a scar on the part of your body that the tissue flap is taken from, and a patch of skin on the reconstructed breast. Because this patch of skin has come from a different part of your body, it may be a different texture and colour from the breast skin.
- It involves having surgery to another part of your body as well to remove the skin flap.
- You will have a longer operation, hospital stay and recovery.
- Reconstructed breasts have less sensation than the original breast (they may feel numb).

Having radiotherapy afterwards

There is a risk that radiotherapy may shrink or harden the tissue used to form the new breast and affect how the breast looks. So if your doctors think you may need radiotherapy after a mastectomy, they may suggest you have a delayed breast reconstruction.
Using tissue from your back

This is known as a latissimus dorsi flap or LD flap. In this operation, the surgeon uses a muscle called the latissimus dorsi and some overlying fat and skin from your back. The flap and its blood supply are tunnelled under the skin below your armpit and put into position on your chest to make a new breast shape.

Occasionally, the surgeon removes a large amount of fat with the muscle. This is called an extended latissimus dorsi flap and may be done so that an implant isn’t needed.
A latissimus dorsi flap may be suitable for women who:

- have small, medium or large breasts
- need breast reconstruction after a lumpectomy (wide local excision).

It may not be suitable for women:

- with very large breasts
- who are very overweight.

**Benefits**

- A latissimus dorsi flap can match most breast sizes well.
- The breast looks and feels more natural than with an implant only.
- It has a high success rate and problems with the flap are rare.

**Limitations**

- The operation takes up to five hours and recovery time can be up to three months.
- You’ll have a scar on your back. This is usually horizontal across the part of your back the muscle is taken from, but won’t be seen under a bra. Sometimes the scar is at more of an angle (diagonal) and more difficult to cover with a bra, but can be covered with a swimsuit.
• There will be a scar on the reconstructed breast. The skin on your back is a slightly different texture and colour from the skin on your chest, so the patch of skin on the reconstructed breast may not completely match that of the other breast.

• There may be a small bulge under your armpit where the muscle is tunnelled under the skin.

• The breast will have less sensation than the original breast (it may feel numb).

• It may take several months for the muscle to feel part of the breast and not the shoulder.

• Some women notice their reconstructed breast twitches or jumps when they cough or sneeze. Most women aren’t too troubled by this. But, if it is very troublesome, it may be stopped with an operation to the nerve that runs to the LD muscle in the breast.

• You may need to have surgery to lift or reduce the size of your natural breast to get a good match.

• If you want a larger breast reconstructed, you may need an implant as well.

‘I had reconstruction using muscle from my back and an implant, as there wasn’t enough of me to reconstruct without an implant! The cosmetic result in clothes, even low-cut tops, is amazing. I honestly can’t tell the difference!’

Allison
Understanding breast reconstruction
Risks

**Fluid under the back wound (seroma)**
This is the most common problem soon after LD flap surgery. Seromas usually get better with time as the body heals, although they may need to be drained (see page 69). Occasionally, they persist (chronic seroma) and need extra treatment.

> ‘I struggled for a while with fluid (seroma), which led to my back wound not healing up properly. But that is all behind me now (excuse the pun).’

Rose

**Shoulder weakness**
After the operation, you will have some weakness in your back and shoulder. This will improve over time, as there are many muscles in the back that can compensate for the loss of the LD muscle. You should regain full shoulder strength for most activities within about six months after the surgery. You may notice weakness during some movements, for example, when you push up to get out of the bath, or if you raise your arms above shoulder height, such as when climbing a ladder.

Most women can return to daily activities, including sports such as swimming and tennis, without any problems. However, the ability to take part in sports such as rowing, rock climbing, cross-country skiing or playing competitive racquet sports at a high level, are likely to be affected by LD flap surgery.
Using tissue from your tummy area (abdomen)

This operation uses a flap of skin, fat and sometimes muscle from the tummy area (abdomen) to create a breast shape. The procedure also tightens and flattens the tummy area (similar to a ‘tummy tuck’ operation). The tummy button is moved to a new position on your tummy.

Types of reconstruction operations using tissue from the tummy area include a:

- TRAM flap
- DIEP flap
- SIEA flap.

TRAM flap reconstruction
This procedure uses a flap of fat, muscle and skin from your tummy area to create the shape of a breast.

It is called a TRAM flap because the rectus abdominis muscle (large tummy muscle) is used and because the skin is taken from across your tummy (transversely). After removing the muscle, the surgeon may use a mesh to strengthen the tummy wall and prevent a bulge or hernia developing.

There are two types of TRAM flap:

Pedicled TRAM flap
The surgeon takes a flap of skin, fat and muscle from your tummy with its blood supply still connected. They then tunnel the flap under the skin to the chest to make a breast shape. The operation takes about 4–6 hours.
Free TRAM flap
The surgeon takes a flap of skin, fat and muscle from your tummy. The tissue and its blood vessels are completely detached from the tummy. They then transfer the flap to the breast area and connect it to a new blood supply in the armpit or near the breastbone. This involves microsurgery, where the surgeon uses a microscope to help them see the very fine blood vessels they need to join.

Once the blood vessels are reconnected, the blood supply to the new breast is better than with a pedicle TRAM flap because the blood does not have so far to travel. This means it’s possible to make a larger breast using this technique, although less muscle is taken from your tummy than in the pedicle TRAM flap.

Free TRAM flap surgery is very specialised and is done by a plastic surgeon. It takes longer than pedicle TRAM flap surgery – usually about 6–8 hours.

Most plastic surgeons advise delaying a free TRAM flap reconstruction if radiotherapy is planned. This is because radiotherapy can affect the look and feel of the new breast.
**DIEP flap reconstruction**
A flap of fat and skin (but not muscle) is taken from your tummy area to create the shape of a breast. The tissue and its blood vessels are completely detached from your tummy and reconnected to a new blood supply in your chest area. It is called DIEP because deep blood vessels called the inferior epigastric perforators are used. This is a free flap operation and requires microsurgery. Like the free TRAM flap, it is a long and complex operation and takes about 6–8 hours.
SIEA flap reconstruction

Another possible operation using fat and skin from the tummy area is called a free SIEA flap (superficial inferior epigastric artery flap). The operation is similar to the free DIEP flap but uses a different blood vessel.

Free TRAM, DIEP and SIEA flaps all involve very specialised surgery. You may have to travel to a specialist unit for this. There may be a longer waiting time for these operations.

Reconstruction using tissue from the tummy area may be suitable for women:

• with breasts of any size
• who don’t want an implant
• who need to have both breasts reconstructed.

They may not be suitable for women who:

• have previous scarring on the tummy area
• are very slim and don’t have enough tissue on their tummy
• are very overweight
• have health problems such as diabetes
• smoke.
Benefits

- The breast looks, feels and moves naturally.
- An implant is not usually needed.
- The procedure tightens and flattens the tummy area (similar to a ‘tummy tuck’ operation).

Limitations

- You will have a patch of skin on your breast and a scar on your tummy. The tummy scar is horizontal, just below the bikini line.
- 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.
- The reconstructed breast will have less sensation than the original breast (it may feel numb).
- Tummy operations are long (4–8 hours).
- Recovery from the operation can take three months or more.
Risks
Complications are more common for women who smoke or are very overweight.

Build-up of fluid under the donor wound site (seroma)
This sometimes happens soon after the operation, but usually gets better within a few weeks. This is more common after a pedicle TRAM flap operation than after free flap operations, where the blood supply to the tissue is cut and reconnected.

Hernia or bulge in the tummy area
Taking muscle from your tummy can weaken the tummy wall. Some women develop a bulge or hernia in the tummy area. There’s a greater chance of this happening after a pedicle TRAM flap, as more muscle is taken. To reduce the risk, you’ll have mesh put into your tummy wall to support it. Hernias are less common after a free TRAM flap and are rare after a free DIEP or SIEA flap.

‘It’s been eight months since my operation and I still have a fairly large section in the middle of my tummy that is very hard and gets bigger and tighter as the day progresses. They said it’s perfectly normal and can take up to 12–18 months to go completely.’
Tracey

Flap re-exploration
Your surgeon and nurses will keep a close check on the new tissue in the reconstructed breast during the first few days after the operation. They will want to be sure that its blood supply is working well. If there are any signs of a problem, you may need to go back to the operating theatre to have it checked. This is done to make sure the new breast tissue stays healthy and heals well.
About 1 in 8 women (12%) who have a flap made from their tummy tissue may need one of these ‘second check’ operations during the week after their surgery. It’s more likely to be needed after a free flap operation than after a pedicle TRAM flap.

Loss of all or part of the new breast
Most operations are successful, but occasionally the blood supply to the reconstructed breast is not good enough and the flap fails (dies). This happens to about 1 in 500 women (0.2%) who have a pedicle TRAM flap and to about 2 in 100 women (2%) who have a free flap procedure.

Sometimes, a small area of the new breast is lost soon after the operation. Another operation may be needed to improve the appearance of the breast.

Fat necrosis
Fat necrosis can sometimes happen after abdominal flap surgery. It occurs when fatty tissue doesn’t have a good enough blood supply. Fat necrosis feels like a firm lump in the reconstructed breast. If you feel a lump in your reconstructed breast, it will need to be checked. Smaller areas of fat necrosis can often be absorbed by the body with time. But sometimes you’ll need further surgery to remove the area of fat necrosis and improve the appearance of the breast.

Muscle weakness
TRAM flaps use some of the muscles from the front of the tummy (those that form the six-pack). These muscles are important for activities such as lifting and physical work. They also work with the back muscles. This means if they are weakened, you may get back pain and find some sports and physical activities more difficult. You may be given exercises to do to get back full strength of the tummy. If you have reconstruction using a DIEP or SIEA flap, no muscle is used and this preserves the strength of the tummy more.
Using tissue from other areas of your body

Breast reconstruction can be done using tissue from other areas of the body. The most common areas are the buttock or the inner thigh. It may also be possible to take flaps from other areas where there is enough fat and a suitable blood supply.

These operations are less common and not all breast reconstruction centres do them. They may be suitable if you want a reconstruction using your own tissue but are very slim, or if you have scars on your tummy from previous abdominal surgery.

Tissue taken from your buttock

Sometimes, a new breast is made using fat and skin taken from the buttock. This may be done when the tummy area can’t be used, perhaps due to scarring from previous operations. Or it may be because there is not enough tummy tissue for reconstruction. It involves complex surgery and a long operation (6–8 hours).

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

- Free SGAP flap (superior gluteal artery perforator flap) – tissue is taken from the upper buttock.

- Free IGAP flap (inferior gluteal artery perforator flap) – tissue is taken from the lower buttock area.
Benefits

• The reconstructed breast looks and feels natural.

• Two breasts can be reconstructed using this procedure.

• There is no need for an implant.

• There is no weakness in the back or tummy afterwards.

Limitations

• You will have an oval-shaped scar on your breast and a scar on your bottom. An SGAP leaves a diagonal scar on the upper buttock, which can usually be hidden by underwear with a higher waistband. An IGAP scar may be hidden in the crease between the lower buttock and thigh.
• One buttock may be slightly smaller than the other after surgery.

• The reconstructed breast will have less sensation than the original breast (it will feel numb).

• This type of reconstruction involves complex surgery and a long operation (6–8 hours).

**Using tissue from your thigh (TUG flap)**
This operation uses tissue from the upper inner thigh, including some muscle. The tissue is removed and attached to the breast area using microsurgery. It is called a free TUG flap because the upper gracilis muscle is used in the operation and the skin is taken from across your thigh (transversely). It involves complex surgery and a long operation (6–8 hours).

It may be suitable for women who are slim and have small breasts, as there is not usually enough tissue on the thigh for larger breasts. As well as a round scar on the new breast, there will also be a long scar on the thigh after the operation. However, this is usually well-hidden because of its position.

Your surgeon may discuss other procedures with you that aim to achieve the best possible appearance for your reconstructed breast, and to match it to the size and shape of your other breast.

There’s a table that compares the different types of breast reconstruction on the next page.
### Comparing breast reconstruction options

<table>
<thead>
<tr>
<th>Will I need an implant?</th>
<th>Length of surgery</th>
<th>Time in hospital</th>
<th>Recovery time</th>
<th>Scars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2–3 hours</td>
<td>0–3 days</td>
<td>6 weeks</td>
<td>Scar on your breast only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LD flap</th>
<th>No implant generally not used</th>
<th>4–6 hours</th>
<th>Up to 7 days</th>
<th>4 months</th>
<th>Scar on your breast and across your lower tummy area close to the bikini line</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIEP or SIEA flap</td>
<td>No implant generally not used</td>
<td>6–8 hours</td>
<td>Up to 7 days</td>
<td>4 months</td>
<td>Scar on your breast and across your lower tummy area close to the bikini line</td>
</tr>
<tr>
<td>Free TRAM flap</td>
<td>No implant generally not used</td>
<td>6–8 hours</td>
<td>Up to 7 days</td>
<td>4 months</td>
<td>Scar on your breast and across your lower tummy area close to the bikini line</td>
</tr>
<tr>
<td>Pedicled TRAM flap</td>
<td>No implant generally not used</td>
<td>4–6 hours</td>
<td>Up to 7 days</td>
<td>4–6 months</td>
<td>Scar on your breast and across your lower tummy area close to the bikini line</td>
</tr>
<tr>
<td>SGAP, IGAP flap or TUG flap</td>
<td>No implant generally not used</td>
<td>6–8 hours</td>
<td>Up to 7 days</td>
<td>4 months</td>
<td>Scar on your breast and on your inner thigh ([TUG] OR IGAP) OR in the crease between your lower buttock and thigh ([SGAP]) OR on your inner thigh ([TUG])</td>
</tr>
<tr>
<td>Effects on muscles</td>
<td>No change in muscle strength</td>
<td>May cause slight shoulder weakness. LD muscle in breast may twitch.</td>
<td>Risk of weakness in tummy muscles (mesh is used to strengthen)</td>
<td>Risk of weakness in tummy muscles (mesh is used to repair and strengthen)</td>
<td>No change in muscle strength</td>
</tr>
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<td>----------------------------------------------------------------</td>
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</tr>
<tr>
<td>Things to consider</td>
<td>Gives a less natural shape than reconstruction using your own tissue. If used to reconstruct just one breast, surgery to your other breast is often needed to match shape and size.</td>
<td>May not be suitable if you have health problems, diabetes or if you smoke. May not be suitable if you’re very slim or overweight, or if you have scars on your tummy from previous surgery.</td>
<td>May not be suitable if you have health problems, diabetes or if you smoke. May not be suitable if you’re very slim or overweight, or if you have scars on your tummy from previous surgery.</td>
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<td>May not be suitable if you have health problems, diabetes or if you smoke. May not be suitable if you’re very slim or overweight.</td>
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</tbody>
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3

IMPROVING THE FINAL LOOK AND SHAPE

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Lipomodelling

After breast reconstruction, there are sometimes dents or irregularities in the outline (contour) of the new breast. This can be improved by injecting fat into your breast to fill out the dent. This is a relatively new procedure that’s been developed from liposuction techniques. It can also be used to enlarge a breast. It is now more widely used in women having implant reconstructions to make them look and feel more natural.

Lipomodelling is a day-case procedure and involves taking fat from one part of your body, for example, the thigh or the abdomen, and injecting it into the breast. After the procedure, the area where the fat was taken from may be bruised and sore, but this wears off quickly. The procedure usually needs to be repeated a few times. This is because some of the fat absorbs into the body so needs to be replaced. Repeating the procedure also makes sure any uneven areas are smoothed out. Lipomodelling is not usually done until the reconstructed breasts have fully healed. This usually takes about 6–12 months. Your reconstruction surgeon can give you more information.

The nipple

As part of a mastectomy, the nipple is often removed. However, it may be possible to keep your nipple. This is usually possible if the risk of the nipple or surrounding tissue containing cancer cells is very low, your breast shape is suitable and if you are having an immediate reconstruction. There are two options for keeping your own nipple:

- The nipple can be left attached to the skin of the breast and only the breast tissue that lies under the skin is removed.
• The nipple and the surrounding darker skin (areola) may be removed with the rest of the breast tissue and then attached (grafted) on to the reconstructed breast.

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

**Nipple reconstruction**

Occasionally, nipple reconstruction is done at the same time as breast reconstruction, but it is usually done some time afterwards. This lets the breast settle into its final shape so that the surgeon can position the nipple accurately, in line with your other nipple. The time between operations for breast and nipple reconstruction may vary, but it is usually about 4–6 months.

Your nipple shape may be reconstructed using a:

• nipple flap – the surgeon folds skin on to your new breast into a nipple shape

• nipple-sharing graft – the surgeon takes part of the nipple from your natural breast and places it on your new breast.

These procedures can be done under a local or a general anaesthetic. It is usually possible to go home on the same day.

A reconstructed nipple does not react to temperature changes or touch and does not have the same sensation as a natural nipple.
Nipple/areola tattooing (micro-pigmentation)
Once you have a new nipple shape, you can have the new nipple and area around it tattooed to match the colour of the nipple and areola of your natural breast. This is done in the hospital. You may have some local anaesthetic cream put on the nipple and surrounding skin to numb the area before any tattooing is done.

A tattooing session usually takes 30–40 minutes. It may need to be done more than once to give the best result. It usually lasts about 18 months to two years. Sometimes the opposite nipple is also tattooed to ensure a good match. Tattooing isn’t usually painful but the area may feel tender (like a graze) for a few days afterwards.

Nipple prosthesis
If you decide you don’t want to have another operation to make a nipple, you may prefer to have a silicone one, which you can attach to your reconstructed breast. Once the nipple is fixed to the breast with special adhesive, it can stay in place for up to three months.

Ready-made nipple prostheses come in various shades and sizes, so most women find a good match with their other nipple. They can also be custom-made to match your other nipple.
‘I have a set of stick-on ones, which look fantastic as they are modelled on the remaining one.’

Karen

Surgery to the other breast

Surgeons carrying out breast reconstruction aim to match the size and shape of the reconstructed breast to your other breast. This is not always possible, so they may suggest you have an operation on your other breast to give a better match.

This may involve the following:

• **Breast reduction** If your natural breast is larger than the reconstructed breast, it can be reduced in size and altered in shape so that the final appearance is balanced.

• **Breast lifting and reshaping (mastopexy)** If your natural breast is droopier than the reconstructed breast, it can be lifted and reshaped.

• **Breast enlargement (augmentation)** If your reconstructed breast is larger than your other breast and you prefer the larger breast, the natural breast can be made bigger with a silicone implant. This can sometimes be combined with a breast lift.

Surgery to your other breast will cause some scars, but these will fade with time. Some operations, such as repositioning the nipple, may lead to reduction or loss of sensation in the nipple.
Reconstruction after breast-conserving surgery

Most women don’t need breast reconstruction after an operation to remove part of their breast (breast-conserving surgery). But, if you need to have a larger amount of breast tissue removed, you may be offered reconstructive surgery to improve the appearance or symmetry of your breasts.

Breast-conserving surgery and reconstruction can be done as one operation (immediate reconstruction) or 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, there’s a chance you may need further surgery if these checks show there may be some remaining cancer cells in the breast.

Possible operations to improve the appearance of the breasts after part of a breast has been removed include:

- breast reshaping (mastopexy)

- partial breast reconstruction using your own tissue (mini-flap reconstruction)

- lipomodelling to increase the size of the treated breast and to fill any dents (see page 56).
**Breast reduction and reshaping**
These procedures may be an option for you if you have larger breasts and need to have part of your breast removed.

After the tumour is removed, the remaining breast tissue is reshaped to create a smaller breast. You can have surgery to make your other breast smaller (breast reduction) at the same time, so that your breasts match in size.

After the operation, you will need radiotherapy to the reshaped breast. This is to reduce the risk of the cancer coming back in the remaining breast tissue.

**Reconstruction using your own tissue (mini-flap)**
If you need a larger area of your breast removed, you may be able to have surgery to fill out the breast and restore its natural shape using tissue from another part of your body. This is done using a muscle from your back called the latissimus dorsi (see page 37) or with skin and fat from the back or side of your chest.

This operation is carried out through a cut in the skin, either under the armpit, at the side of the breast or on your back to avoid more scars on your breast.

Latissimus dorsi mini-flap reconstructions
‘I don’t really see the scars anymore. I seem to be able to see past them – something I never thought I would be able to say.’

Sue
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Recovering after surgery

Immediately after surgery, your reconstructed breast may be covered with dressings. Alternatively, the wound may be held together with sticky plastic strips, which are left in place until the wound has healed.

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. Pat the wound area dry with a clean towel – don’t rub it. Once the wound has healed, you can bathe or shower normally. Wash with lukewarm water and unperfumed soap, and rinse the wound well.

At first, your new breast may be larger than your other breast. This is due to swelling, which can happen after surgery. Your breast will gradually get smaller over a few weeks or months.

Warmth
If you have breast reconstruction using your own tissue, the new breast will need to be kept warm for the first few hours after the operation. Warmth improves blood circulation to the tissue. You may have a special blanket called a ‘bair hugger’, which circulates warm air over you, or you may have a thick gauze pad over the flap to keep it warm.

Pain or discomfort
After any type of operation, you are likely to experience some pain or discomfort. Many women need painkillers for a few weeks after surgery. Make sure you ask for pain-relieving medicines, if you need them. In general, if your pain is controlled well, you’ll recover more quickly after surgery.

Some painkillers may cause constipation, so you may need to take laxatives. Your doctor can prescribe these for you or you can get them from your local chemist.
Your physiotherapist will show you exercises to help your recovery. At first, you may have some discomfort when you move your arm on the side where you’ve had surgery. But it’s important you continue to use your arm and to do the exercises suggested. You’ll also be given specific exercises to do if you’ve had surgery to other areas, such as your back or 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 and on whether you have immediate or delayed reconstruction. If you have implant-based surgery, you may be in hospital for up to three days. After an operation using tissue from your back, you may be in hospital for about 4–7 days. If your reconstruction is done using tissue from your tummy, you may be in hospital for up to seven days.
Work and everyday activities
You’ll probably feel tired in the first week after you get home from hospital. It’s a good idea to have someone around who can help you for the first few days. After this, you can start looking after yourself and gradually increase your level of activity. Just do light tasks to begin with and slowly build up what you can do.

Don’t do any strenuous housework such as vacuuming, or move or lift anything heavy until your surgeon says it’s okay to do so.

How soon you can return to work depends on the type of work you do and on the type of operation you have had. In general, if your job doesn’t involve heavy manual work, you can go back to work sooner. But, it’s important to remember that you’re likely to feel more tired than usual for a while. You may also find it difficult to concentrate fully at first.

Driving
You can usually start driving again once you’re able to use the gear lever and handbrake, and provided you could do an emergency stop or move the steering wheel suddenly if necessary. Some women are able to drive within a few weeks of their surgery, while others find it takes longer. Insurance companies often have their own guidelines about when you can drive again after an operation, so you should check this with your car insurance company.

Your sex life
It’s fine to have sex when you feel comfortable to do so. This will probably be a few weeks after your operation, but it may take longer. Just take things at your own pace and talk to your partner about any concerns you have. Your breast care nurse can also advise you. There’s more information about the effects of breast reconstruction on your sex life on page 75.
Wearing a bra
If you are advised to wear a bra to support your newly reconstructed breast, a soft supportive bra without underwires (such as a sports bra) will be more comfortable to begin with. 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 to make sure it stays in the correct position and doesn’t twist. You should wear this day and night.

Looking after your skin
Your wound may feel itchy as it heals but it’s important not to scratch the healing skin. The itching will reduce as the wound heals. It usually takes about six weeks for it to heal fully.

Once your wounds have healed, most surgeons recommend you massage the skin and scars over your reconstructed breast and at the donor site (if you have one) with body oil or cream at least once a day. Massaging the skin will help to keep it supple and in good condition. Massaging along the length of the scar(s) using moisturiser or massage oil helps prevent it from sticking to tissue underneath as it heals. It can also help to speed up the healing process and soften your scars. Your surgeon or breast care nurse can tell you what they recommend, and show you how much pressure to use when massaging.

‘The scars on the breast are minimal considering what they do, and the tummy scar is hip bone to hip bone, but very low and I am told will fade very well in due course.’

Gill
To begin with, any scars you have will be red or darker if you have dark skin, quite firm and may be slightly raised. But over time, they will flatten and fade. Everyone’s skin heals differently. If you have dark skin or have fair, freckled skin, scars can take a bit more time to settle and may be more noticeable for longer. In general, it can take from 18 months to two years for scars to fully settle and fade. If you have concerns about how your scars are healing, talk to your nurse or surgeon. They can check that everything is healing as it should be or, if there is a problem, can tell you what can be done to help.

**Possible problems**

You may not have any problems after surgery. But it can help to know what the more common problems are so that, if you do have any, they can be detected and treated early.

**Infection**

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

- increased redness or change in colour over the breast, around the scar area or both

- discharge (fluid being released) 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 infection, if needed.
After breast reconstruction

**If you are having chemotherapy**
Chemotherapy reduces your ability to fight infection. If you have an immediate reconstruction, your doctors will wait until your breast has healed before beginning chemotherapy. If you feel unwell or have any signs of infection in your breast or elsewhere after starting chemotherapy, it’s important to contact the chemotherapy team straight away for advice. Your chemotherapy nurse will give you information about the signs of infection to look for while you are having chemotherapy.

**Bruising and bleeding**
Bruising to the breast and donor site is very common after the operation and usually goes away after about three weeks. Sometimes, after the operation, there can be bleeding and a build-up of blood (a haematoma) in the breast or donor site.

If this happens, it is most likely in the first 24 hours after surgery and can cause swelling and pain. Sometimes another operation is needed to stop the bleeding.

**Fluid under the wound (seroma)**
After your surgery, it’s normal for some fluid to collect in the area around the wound (a seroma). You will have drains in place to take away this fluid. These are long, thin plastic tubes attached to vacuum drainage bottles. A nurse will remove these a few days after your operation. Sometimes, after the drains are taken out, fluid builds up under the wound. This may need to be drained by a surgeon or nurse, using a small needle and syringe.
Understanding breast reconstruction
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 experience pain and it doesn’t improve, talk to your breast surgeon. They can do tests to find out the cause or recommend a treatment that may help.

Keloid scars
Most scars following breast reconstruction heal normally and gradually fade. However, a small number of women may develop a keloid scar. These are caused by an overgrowth of tissue along the scars. They are wider than normal scars and often a different colour from normal skin. They are also raised above the normal skin. If you’re worried about your scars, talk to your surgeon.
What if I’m not happy with the results?

‘I suppose my fear is that I never fully “connect” with my new boobs – will they feel like me? Will they look like me? How will I feel?’

Aimi

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 go ahead.

It’s important to remember that it takes several months after reconstructive surgery for the breast to settle into its final shape. So while you may feel unhappy immediately after the surgery, you may feel differently a few months later. Full healing can take about a year. It often takes more than one operation to get a good match with your natural breast.

If you have concerns, discuss them with your surgeon or breast care nurse. Your surgeon may be able to offer you another operation to improve the result. If you are still unhappy following discussions with your surgeon, you can, if you wish, ask to be referred to another surgeon for a second opinion.
Mammograms and checking your breasts

Mammograms
You won’t usually need to have mammograms of the reconstructed breast after a mastectomy. But you will be invited to have regular mammograms on the other breast. If you have had partial breast reconstruction, you will continue to have mammograms on that breast.

Breast implants hide part of the breast during a mammogram. But experts believe that mammograms are still useful to check the overlying breast tissue. Your doctor can advise on how any possible recurrence of cancer can be found.
**Self-examination**

It’s important to continue checking both your remaining natural breast and your reconstructed breast for any abnormalities or changes. If you have not previously done this, ask your nurse to show you how to do it. They can also give you leaflets that show you how to check your breasts. Your doctor will also regularly examine your breasts after your reconstruction.

Things to look out for include:

- breast tissue that feels different, for example, harder or tighter
- a change in the appearance or shape of the breast
- a change in the skin’s texture, for example, puckering, dimpling, a rash or thickening
- a visible lump or bulge
- a lump or lumpy area you can feel in the breast or armpit
- the nipple turns in or points differently
- any kind of discharge from the nipple
- a rash or swelling on the nipple or the areola (the dark area around the nipple)
- enlarged lymph nodes under either armpit
- swelling of the upper arm
- unusual pain or discomfort (different from tenderness before your period).
These signs do not necessarily mean your cancer has come back, but it’s important to tell your nurse or doctor if you find anything that concerns you.

If you are worried that your cancer has come back in the reconstructed breast, your surgeon will examine you and arrange some tests. These can include an ultrasound, MRI scan or a biopsy to check for anything unusual.

**Sex**

Having a breast reconstruction may not make any difference to your sex life. However, women often need to feel relatively happy with their bodies to have a fulfilling sex life. Having breast reconstruction will create a breast shape, but the sensations in the breast and the nipple will not be the same as before. This can affect sexual arousal if you were previously aroused by having your breasts touched.

Although breast reconstruction won’t affect your physical ability to have sex, emotionally you may not feel like having sex for a while. Many women need time to talk about their feelings. Some women feel nervous about how their partner will react to their body. There’s no right or wrong time or way to talk about these issues. You can wait until you and your partner feel ready. With support and clear communication, you can still enjoy a fulfilling sex life.

Our booklet *Sexuality and cancer* discusses these issues in more detail.
Your feelings

The change in your breast shape will take some time to get used to. You will already have had a lot to cope with, from the initial diagnosis, treatment and surgery for breast cancer. This is yet another stage. At first, your new breast might not really feel like ‘you’. It will take some time to get used to your new shape. If you have a partner, it may also take some time for you to feel comfortable talking about your surgery and showing your new breast to them.

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

Many people and organisations can help you talk about and deal with your feelings and emotions. Your breast care nurse can discuss your situation with you, and you can also contact the organisations listed on pages 84–87.

Our booklet *How are you feeling? The emotional effects of cancer* has information about coping with emotions and feelings.
5

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How we can help you

Cancer is the toughest fight most of us will ever face. But you don’t have to go through it alone. The Macmillan team is with you every step of the way.

Get in touch

Macmillan Cancer Support
89 Albert Embankment,
London SE1 7UQ
Questions about cancer?
Call free on 0808 808 00 00
(Mon–Fri, 9am–8pm)
www.macmillan.org.uk
Hard of hearing?
Use textphone 0808 808 0121
or Text Relay.
Non-English speaker?
Interpreters are available.

Clear, reliable information about cancer

We can help you by phone, email, via our website and publications or in person. And our information is free to everyone affected by cancer.

Macmillan Support Line
Our free, confidential phone line is open Monday–Friday, 9am–8pm. Our cancer support specialists provide clinical, financial, emotional and practical information and support to anyone affected by cancer. 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, and offer you the opportunity to speak with someone face to face. Find your nearest one at macmillan.org.uk/informationcentres
Publications
We provide expert, up-to-date information about different types of cancer, tests and treatments, and information about living with and after cancer. We can send you free booklets, leaflets, and fact sheets.

Other formats
We have a small range of information in other languages and formats. Our translations are for people who don’t speak English and our Easy Read booklets are useful for anyone who can’t read our information. We also produce a range of audiobooks. Find out more at macmillan.org.uk/otherformats

Review our information
Help us make our resources even better for people affected by cancer. Being one of our reviewers gives you the chance to comment on a variety of information including booklets, fact sheets, leaflets, videos, illustrations and website text.

If you’d like to hear more about becoming a reviewer, email reviewing@macmillan.org.uk

Need out-of-hours support?
You can find a lot of information on our website, macmillan.org.uk
For medical attention out of hours, please contact your GP for their out-of-hours service.

Please email us at cancerinformationteam@macmillan.org.uk if you’d like us to produce our information for you in Braille or large print.

You can find all of our information, along with several videos, online at macmillan.org.uk/cancerinformation
Someone to talk to

When you or someone you know has cancer, it can be difficult to talk about how you’re feeling. You can call our cancer support specialists to talk about how you feel and what’s worrying you.

We can also help you find support in your local area, so you can speak face to face with people who understand what you’re going through.

Professional help

Our Macmillan nurses, doctors and other health and social care professionals offer expert treatment and care. They help individuals and families deal with cancer from diagnosis onwards, until they no longer need this help.

You can ask your GP, hospital consultant, district nurse or hospital ward sister if there are any Macmillan professionals available in your area, or call us.

Support for each other

No one knows more about the impact cancer has on a person’s life than those who have been affected by it themselves. That’s why we help to bring people with cancer and carers together in their communities and online.

Support groups
You can find out about support groups in your area by calling us or by visiting [macmillan.org.uk/selfhelpandsupport](https://macmillan.org.uk/selfhelpandsupport)

Online community
You can also share your experiences, ask questions, get and give support to others in our online community at [macmillan.org.uk/community](https://macmillan.org.uk/community)
Financial and work-related support

Having cancer can bring extra costs such as hospital parking, travel fares and higher heating bills. Some people may have to stop working.

If you’ve been affected in this way, we can help. Call the Macmillan Support Line and one of our cancer support specialists will tell you about the benefits and other financial help you may be entitled to.

We can also give you information about your rights at work as an employee and help you find further support.

Macmillan Grants
Money worries are the last thing you need when you have cancer. A Macmillan Grant is a one-off payment for people with cancer, to cover a variety of practical needs including heating bills, extra clothing, or a much-needed break.

Find out more about the financial and work-related support we can offer at macmillan.org.uk/financialsupport

Learning about cancer

You may find it useful to learn more about cancer and how to manage the impact it can have on your life.

You can do this online on our Learn Zone – macmillan.org.uk/learnzone – which offers a variety of e-learning courses and workshops. There’s also a section dedicated to supporting people with cancer – ideal for people who want to learn more about what their relative or friend is going through.
Other useful organisations

Breast cancer organisations

Asian Women’s Breast Cancer Group
Shree Kutch Satsang
Swaminarayan Temple,
Westfield Lane, Kenton,
Harrow HA3 9EA
Tel 07790 538 499
Email info@awbcg.co.uk
www.awbcg.co.uk
Helps women of all cultures who have been affected by breast cancer. Provides the support women may need, from emotional support to financial guidance.

Breakthrough Breast Cancer – Scotland
38 Thistle Street,
Edinburgh EH2 1EN
Tel 0131 226 0761
Email scotlandinfo@breakthrough.org.uk

Breast Cancer Care
Weston House, 246 High Holborn, London WC1V 7EX
Tel 0808 800 6000
Email info@breastcancercare.org.uk
www.breastcancercare.org.uk
A charity committed to fighting breast cancer through research and awareness.

Breast Cancer Care
East Midlands and the North of England
S1 St James, Vicar Lane,
Sheffield S1 2EX
Tel 0845 077 1893
Email nrc@breastcancercare.org.uk
Breast Cancer Care
Scotland and Northern Ireland
152 Bath Street,
Glasgow G2 4TB
Tel 0845 077 1892
Email sco@breastcancercare.org.uk

Breast Cancer Care
Wales, Central and South West of England
1st Floor, 14 Cathedral Road,
Cardiff CF11 9IJ
Tel 0845 077 1894
Email cym@breastcancercare.org.uk

The Haven
Tel (The London Haven) 020 7384 0099
Tel (The Hereford Haven) 01432 361 061
Tel (The Leeds Haven) 0113 284 7829
www.thehaven.org.uk
Havens are day centres providing support, information and complementary therapies before, during or after cancer treatment.

General cancer support organisations

Cancer Black Care
79 Acton Lane, London NW10 8UT
Tel 020 8961 4151
Email info@cancerblackcare.org.uk
www.cancerblackcare.org.uk
Offers information and support for people with cancer from ethnic communities, their friends, carers and families.

Cancer Focus
Northern Ireland
40–44 Eglantine Avenue,
Belfast BT9 6DX
Tel 0800 783 3339
(Mon–Fri, 9am–1pm)
Email hello@cancerfocusni.org
www.cancerfocusni.org
Offers a variety of services to people affected by cancer, including a free helpline, counselling and links to local support groups.
Cancer Support Scotland
Calman Cancer Support Centre, 75 Shelley Road, Glasgow G12 0ZE
Tel 0800 652 4531
Email info@cancersupportscotland.org
www.cancersupportscotland.org
Runs cancer support groups throughout Scotland. Also offers free complementary therapies and counselling.

Irish Cancer Society
43–45 Northumberland Road, Dublin 4, Ireland
Tel 1800 200 700 (Mon–Thu, 9am–7pm, Fri, 9am–5pm)
Email helpline@irishcancer.ie
www.cancer.ie
National cancer charity offering information, support and care to people affected by cancer. Has a helpline staffed by specialist cancer nurses.

Maggie’s Centres
1st Floor, One Waterloo Street, Glasgow G2 6AY
Tel 0300 123 1801
Email enquiries@maggiescentres.org
www.maggiescentres.org
Provide information about cancer, benefits advice, and emotional or psychological support.

Penny Brohn Cancer Care
Chapel Pill Lane, Pill, Bristol BS20 0HH
Helpline 0845 123 2310 (Mon–Fri, 9.30am–5pm)
Email helpline@pennybrohn.org
www.pennybrohn cancercare.org
Offers a unique combination of physical, emotional and spiritual support, using complementary therapies and self-help techniques.

Tenovus
Head Office, Gleider House, Ty Glas Road, Cardiff CF14 5BD
Tel 0808 808 1010 (Mon–Sun, 8am–8pm)
www.tenovus.org.uk
Provides support such as mobile cancer support units, a free helpline, an ‘Ask the nurse’ service on the website and benefits advice.
Counselling and emotional support

British Association for Counselling and Psychotherapy (BACP)
BACP House, 15 St John’s Business Park, Lutterworth LE17 4HB
Tel 01455 883 300
Email bacp@bacp.co.uk
www.bacp.co.uk
Promotes awareness of counselling and signposts people to appropriate services.

College of Sexual and Relationship Therapists (COSRT)
PO Box 13686, London SW20 9ZH
Tel 020 8543 2707
Email info@cosrt.org.uk
www.cosrt.org.uk
Provides information and support on sexual problems.

Financial or legal advice and information

Citizens Advice
Provides advice on financial, legal, housing and employment issues. Find details for your local office on one of the following websites:

- England and Wales
  www.citizensadvice.org.uk
- Scotland
  www.cas.org.uk
- Northern Ireland
  www.citizensadvice.co.uk

You can also find advice online in a range of languages at adviceguide.org.uk

You can search for more organisations on our website at macmillan.org.uk/organisations, or call us on 0808 808 00 00.
Further resources

Related Macmillan information

You may want to order some of our other booklets:

- How are you feeling? The emotional effects of cancer
- Sexuality and cancer
- Understanding breast cancer

We have information about chemotherapy, surgery and radiotherapy in these languages: Bengali, Gujarati, Hindi, Polish, Portuguese, Punjabi, Russian, Traditional Chinese and Urdu.

We also have a range of Easy Read booklets. Visit macmillan.org.uk/otherformats to find out more.

To order any of our resources, visit be.macmillan.org.uk or call 0808 808 00 00. All of our information is also available online at macmillan.org.uk/cancerinformation

Helpful books

**Breast reconstruction. Your choice.**
Rainsbury D and Straker V, 2008, £19.99
This guide is based on the experiences of more than 60 women who have had breast reconstruction. It explains all the surgical and non-surgical options available and covers all you need to know to help you make your decision. You can order it by calling 01256 302 699.

**Breast cancer. Your treatment choices.**
Priestman T, 2013, £8.99
Gives the basic information needed to make informed decisions about cancer care, including key facts about surgery. You can order it by calling 01235 465 579.
Macmillan audiobooks

Our high-quality audiobooks include information about cancer types, different treatments and about living with cancer.

To order your free CD, visit be.macmillan.org.uk or call 0808 808 00 00.

Useful websites

A lot of information about cancer is available on the internet. Some websites are excellent; others have misleading or out-of-date information. The sites listed here are considered by nurses and doctors to contain accurate information and are regularly updated.

Macmillan Cancer Support
www.macmillan.org.uk
Find out more about living with the practical, emotional and financial effects of cancer. Our website contains expert information about cancer and its treatments, including:

• all the information from our 150+ booklets and 360+ fact sheets

• videos featuring real-life stories from people affected by cancer and information from medical professionals

• how Macmillan can help, the services we offer and where to get support

• how to contact our cancer support specialists, including an email form to send your questions

• local support groups search, links to other cancer organisations and a directory of information materials

• a huge online community of people affected by cancer sharing their experiences, advice and support.
Cancer Research UK  
www.cancerhelp.org.uk  
Contains patient information on all types of cancer and has a clinical trials database.

Healthtalkonline  
www.healthtalkonline.org  
www.youthhealthtalk.org  
(site for young people)  
Has information about cancer, and videos and audio clips of people’s experiences.

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.

National Cancer Institute – National Institute of Health – USA)  
www.cancer.gov  
Gives comprehensive information on cancer and treatments.

NHS Choices  
www.nhs.uk  
The country’s biggest health website that gives all the information you need to make decisions about your health.

Options for breast reconstruction  
www.optionsforbreastreconstruction.com  
Interactive website providing information about breast reconstruction, and hospitals in the UK and Ireland where reconstruction is carried out.

Patient UK  
www.patient.co.uk  
Provides people in the UK with information about health and disease. Includes evidence-based information leaflets on a wide variety of medical and health topics. Also reviews and links to many health- and illness-related websites.

Riprap  
www.riprap.org.uk  
Developed especially for teenagers who have a parent with cancer.
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 photographs 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, Dr Mark Verrill, Consultant Medical Oncologist, and by our Chief Medical Editor, Dr Tim Iveson, Macmillan Consultant Medical Oncologist.

With thanks to: Jayne Knight, Breast Reconstruction Clinical Nurse Specialist, St Andrews Centre for Plastic Surgery; Miss Jennifer Rusby, Consultant Oncoplastic Breast Surgeon, RMH; Miss Karyn Shenton, Consultant Breast Surgeon, Kingston Hospital; Mrs Eva Weiler Mithoff, Consultant Plastic and Reconstructive Surgeon, Canniesburn/GRI; and the people affected by cancer who reviewed this edition.

Sources

We’ve listed a sample of the sources used in this publication below.
If you’d like further information about the sources we use, please contact us at bookletfeedback@macmillan.org.uk


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NICE interventional procedure guidance 417.

Surgical photograph credits

Page 10 – A typical appearance after a mastectomy. Photograph supplied by
Professor Mike Dixon.
Page 28 (top)– Reconstruction of both breasts using expandable implants and nipple
reconstructions. Photographs supplied by Professor Mike Dixon.
Page 28 (bottom) – Bilateral mastectomy followed by breast reconstruction using
implants (without nipple reconstruction). Photographs supplied by Jennifer Hu.
Page 37 (top) and Page 58 – Scar on breast (with nipple prosthesis).
Photograph supplied by Professor Mike Dixon.
Page 37 (top) – Scar on back. Photograph supplied by Kalliope Valassiadou.
Page 37 (bottom) – Extended latissimus dorsi flap and nipple reconstruction.
Photograph supplied by Professor Mike Dixon.
Page 44 – Immediate DIEP flap. Photograph supplied by Elaine Sassoon.
Page 44 – Delayed SIEA flap. Photograph supplied by Elaine Sassoon.
Page 50 – SGAP flap reconstruction, front and back. Photographs supplied by
Professor Mike Dixon.
Page 61 – Latissimus dorsi mini-flap reconstructions. Photographs supplied by
Professor Mike Dixon.
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.

**5 WAYS YOU CAN HELP SOMEONE WITH CANCER**

**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

Valid from

Expiry date

Issue no

Security number

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 taxpayer and I would like Macmillan Cancer Support to treat all donations I have made for the four years prior to this year, and all donations I make in the future, as Gift Aid donations, until I notify you otherwise.

I confirm I have paid or will pay an amount of Income Tax and/or Capital Gains Tax in each tax year, that is at least equal to the tax that Charities & CASCs I donate to will reclaim on my gifts. I understand that other taxes such as VAT and Council Tax do not qualify and that 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
More than one in three of us will get cancer. For most of us it will be the toughest fight we ever face. And the feelings of isolation and loneliness that so many people experience make it even harder. But you don’t have to go through it alone. The Macmillan team is with you every step of the way.

We are the nurses and therapists helping you through treatment. The experts on the end of the phone. The advisers telling you which benefits you’re entitled to. The volunteers giving you a hand with the everyday things. The campaigners improving cancer care. The community there for you online, any time. The supporters who make it all possible.

Together, we are all Macmillan Cancer Support.

For cancer support every step of the way, call Macmillan on 0808 808 00 00 (Mon–Fri, 9am–8pm) or visit macmillan.org.uk