The ROYAL MARSDEN
NHS Foundation Trust

Reconstructive surgery of the breast – partial local perforator flap reconstruction

Breast Unit

Patient Information

NHS

Introduction

This booklet provides general information about your surgery. If you have any questions or concerns after reading it, please speak to your Breast Care Nurse. Contact details are provided on page 14.

Local perforator flap reconstruction

This type of operation is suitable for some patients who have a breast cancer which requires replacement of the removed tissue to restore breast shape. The procedure aims to replace the lost breast tissue (removed at the time of cancer surgery) with skin and fat. Therefore it can be referred to as a partial breast reconstruction.

Most women have spare tissue under the arms and around the side of the chest wall or back – this tissue can be used to reconstruct the space left in your breast after your tumour has been removed.

The tissue is kept alive by one or more small blood vessels (arteries and veins) which remain intact when the fatty tissue is placed into the breast. There is no muscle removed in this operation, therefore there is no effect on your arm or chest wall function.

This surgery may be recommended to you as an alternative to a mastectomy. Other breast preserving techniques (operations to remove the breast lump) may result in changes to the size and shape of the breast.

You may have quite a long scar on the side of your chest wall going towards your back (please see image on page 3). All the surgery on your breast, including lymph nodal surgery (if required) will be performed at the same time and through the same scar, in most cases. Therefore, there should not be any scar on the breast (except in some cases where it may be necessary to remove the skin on the breast if the underlying cancer is close to the skin). You would need a separate incision for axillary node clearance.

The aim of this operation is to replace the tissue lost from your breast and to restore its size and shape. However, if you have radiotherapy after this surgery, it may result in some overall shrinkage of the operated breast. This shrinkage may make your breasts appear different to one another.

Medical photographs

You will be able to view photographs of patients who have had this procedure which may help you to decide whether this is the correct procedure for you. Please ask your key worker (one of our Breast Cancer Nurses) to view these photos.

Local perforator flaps are described by different terms which may seem confusing. An abbreviation based on the blood vessels used to nourish the flap tissue is often used.

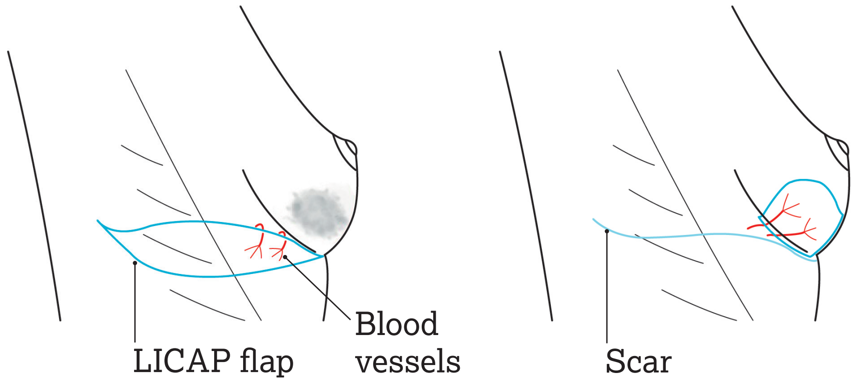
Some examples of the common flap names are listed below:

LICAP – Lateral intercostal artery perforator (*see figure 1*)

LTAP – Lateral thoracic artery perforator (*see figure 2*)

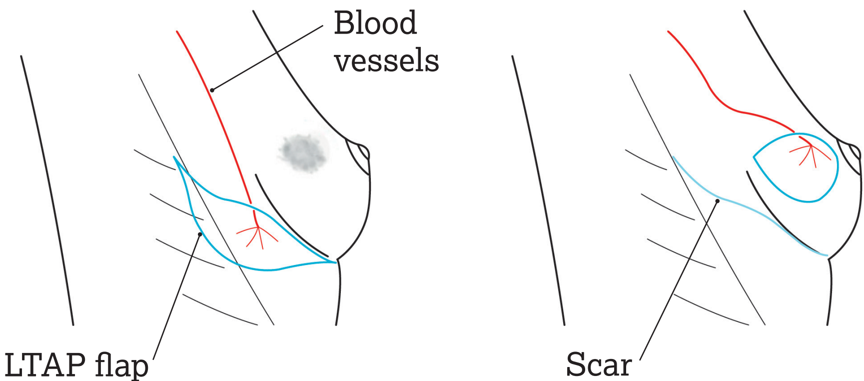
AICAP – Anterior intercostal perforator (*see figure 3*)

Figure 1 – LICAP



In the first image (left) the blue lines demonstrate where we take the tissue from for a LICAP flap design; the red lines show the blood vessels which nourish the tissue. The second image (right) shows the scar behind the breast (lighter blue) after the surgery and the LICAP tissue sitting within the breast where the tumour once was. The only scar visible will be the one on the chest wall.

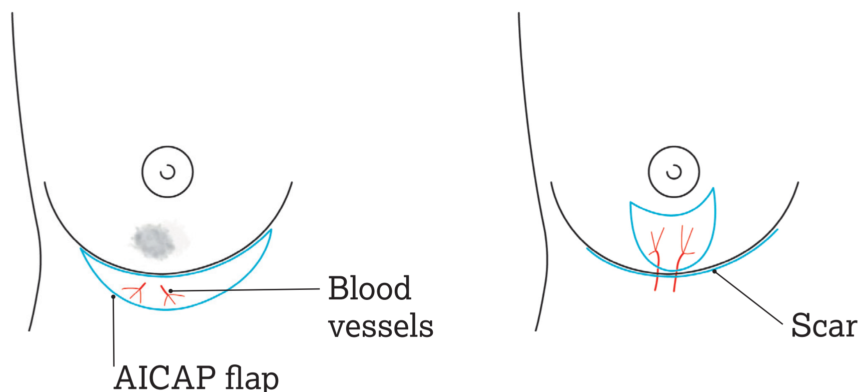
Figure 2 – LTAP



In the first image (left) the blue lines demonstrate where we take the tissue from for an LTAP flap design; the red lines show the blood vessel which nourishes the tissue. The second image (right) shows the scar on the side of the breast

(lighter blue) and the LTAP tissue sitting within the breast where the tumour once was. The only scar visible will be the one on the chest wall just behind the breast.

Figure 3 – AICAP



In the first image (left) the blue lines demonstrate where we take the AICAP tissue from. The blood supply (shown in red) nourishes the tissue for an AICAP flap design. The second image shows the scar along the crease below the breast and the tissue sitting within the breast where the tumour once was. The only scar visible will be beneath the breast. You will also have a small incision in the armpit if you need to have surgery to the lymph nodes in the armpit.

The specific type of flap can sometimes be selected based on the exact location of your cancer within the breast. Sometimes the type of flap used will only be determined during your surgery. This is a technical issue decided by your surgeon based on what will work best in your particular case.

What happens before and on the day of surgery?

Before surgery

During your clinic appointment before surgery, you can discuss the procedure in detail with your surgeon including the possible complications. You will be asked to sign a consent form to show that you agree to the surgery. You will be able to take a copy of the consent form home to look over if needed.

We will ask to have photographs of you taken for our records and for comparison with your result after surgery; this is not mandatory. Photos will not include your face and will be stored securely on the hospital digital database.

You may need to have one or more seed(s) or wire(s) inserted into the breast to help the surgeon identify the area of cancer in the breast. This may be done before the day of surgery (seed) or on the morning of surgery (wire). These will be removed during the surgery.

On the day of your surgery

Your surgical team will see you shortly after you arrive on the ward and draw on you to show where the incisions (cuts) will be made and explain where you will have scars after the operation. They will use a piece of equipment called a hand-held Doppler to accurately plan the flap being moved to fill the breast.

What are the benefits?

The main benefit is that the cancer is completely removed from the breast without having to remove the entire breast. This will provide information to help decision-making about further treatment.

This is also a way of restoring the breast shape and volume close to the way it was before surgery. Because it is less likely it will change significantly compared to the other breast, this may reduce the need to alter the other breast to match it.

What are the risks?

All operations involve risks and benefits. You need to be aware of these so that you can make an informed choice about whether this surgery is right for you. Your surgeon will talk with you in more detail if there are any individual risks in your particular case.

If you are a smoker it is advisable to stop smoking to reduce the risks of surgical complications. Please speak to your surgeon or Breast Care Nurse if you would like help with this.

Risks associated with a local perforator flap reconstruction:

- **Further surgery:** It is important that all of the cancer is removed. You may need further surgery (10% risk or 10 in 100 patients) if we find that this surgery has not removed all of the cancer. The risk of this is greater if you need to have a wire/seed inserted which is not in the correct place or moves. If further surgery is required, we will discuss this with you at your follow up appointment two weeks after the surgery. Occasionally this may lead to a mastectomy, where we might recommend that the whole breast is removed.
- **Pain:** Breast surgery is not usually associated with severe pain but you will need some pain relief after the operation. Pain relief may be in the form of an injection and/or painkillers such as paracetamol and codeine; these are usually effective enough to take when you go home. As this operation involves moving the breast tissue around, the pain or discomfort you feel may not be directly under the scar. Up to 1 in 3 patients (33%) can experience some form of long-term pain or discomfort after this surgery.

- **Infection:** All surgery carries a risk of developing an infection. This is rare (5 in 100 patients or 5%) and can be treated with antibiotics and/or dressings. Very rarely an abscess can form, which is a collection of infection/pus under the skin that requires drainage (1% or 1 in 100 patients). The risk of infection is higher in smokers, diabetics and obese patients. If you feel unwell with a temperature, vomiting or notice significant redness of the skin on or around your breasts, you should contact your Breast Care Nurse or The Royal Marsden Macmillan Hotline.
- **Bleeding/bruising:** You are likely to be bruised after the surgery but this will settle down by itself after a few weeks. Very rarely (2% or 2 in 100 patients) further surgery may be needed if the bleeding persists or if there is a bigger collection of blood (haematoma).
- **Seroma:** Sometimes, after surgery, the wound continues to produce fluid under the scar and can cause swelling called seroma. It is quite a common problem (around 30-50% or 30 to 50 out of 100 patients) following breast surgery and is not harmful. Seromas can last take 6–8 weeks to resolve and only require drainage if they are causing discomfort.
- **Delayed wound healing:** Some patients can have breakdown of the wound and the wound will open up. This leads to delay in wound healing but it will heal with the help of dressings. This is more common in smokers and people with large breasts or with thin skin.
- **Increased sensitivity:** Numbness of the skin surrounding the scar and where the tissue has been repositioned (sometimes extending to the nipple) is common, although some sensation returns in many patients. Some patients experience increased sensation which can last for two to three months.

- **Flap failure/loss:** There is a small risk (1 or 2 in 100 patients) of the flap not working. This is due to the blood vessels supplying the flap being very small and becoming kinked or blocked resulting in part or the entire flap 'dying off'.
- **Inability to proceed with the reconstruction:** During the operation, there is a possibility that your surgeon will be unable to proceed with the reconstruction (less than 1% or 1 in 100 patients). This would happen if, for example, no suitable blood vessel is identified during the operation. In this case, the removal of your cancer will still go ahead. You may be offered alternative forms of reconstruction later to improve the appearance of your breast.
- **Scarring:** This operation will result in a relatively long scar on the side of the chest wall going towards your back, most of which may be hidden by your bra. The scars will be most noticeable soon after the operation but should settle down with time. This may take up to a year or longer depending on how well you usually heal. A thickened/more noticeable scar (hypertrophy or keloid scarring) can occur in up to 10% (or 10 in 100 patients) in certain skin types, particularly Afro-Caribbean. If previous scars at other body sites have been troublesome, you will need to discuss this with your surgeon before deciding on this surgery. Steps may be taken to reduce this problem if you make your surgeon aware of your concerns.
- **Shoulder stiffness:** You are likely to experience some tightness after the surgery due to the scar tissue. This may have an effect on your shoulder movements temporarily. This does not usually last longer than four weeks. You should perform regular exercises to make sure your shoulder movement returns quickly. A physiotherapist will help advise you on which exercises you should do.

- **Fat necrosis:** These are firm lump(s) in your breast which are due to a lack of blood supply in the tissue from the flap. They are not cancerous and can be assessed by mammogram and/or ultrasound, but may need to be biopsied to make sure they are not of any concern. This occasionally may be corrected with further surgery. This occurs in less than 1 in 10 patients but the risk might be increased in patients who smoke and it may happen after breast radiotherapy.
- **Deep vein thrombosis (DVT):** This is a blood clot that can form in a deep vein, usually within the leg. This can happen after any operation and general anaesthetic. The risk of getting a DVT is reduced by wearing special stockings and/or an anti-clotting injection which we would give to you. After the operation, we advise you to move around soon after you are able to get out of bed, and to stay active on your return home.
- **Cosmetic outcome:** There will be a slight difference in the size and shape between the operated and non-operated breast. During the operation we do our best to get the shape and size of the reconstructed breast to be similar to the other breast.
- **Very rare risks:** Surgery and anaesthesia can result in life-threatening complications affecting breathing, the heart or other vital organs, including blood clots and strokes. Please ask your surgeon or pre-assessment clinic team if you have specific questions about the risks of anaesthesia.

Preparing for admission to hospital

Pre-admission clinic

We will ask you to attend a pre-admission clinic or a pre-admission telephone consultation to ensure that you are as physically fit as possible before the operation.

On admission

You will be admitted on the morning of your surgery and will likely be discharged home the same evening. Sometimes an overnight stay may be required.

Breast Care Nurse support

You will have the chance to talk with a Breast Care Nurse about your diagnosis, surgery and any other concerns that you may have.

Before surgery

You will not be allowed to eat for **6 hours** before the anaesthetic (no food or chewing gum), however you may sip water up to **2 hours** before the anaesthetic. Medication may be given 1–2 hours before your operation which can help to reduce discomfort and sickness.

A ward nurse will go with you to and from the theatre. The operation usually takes two hours. You will also spend up to an hour on the recovery ward immediately after surgery.

After surgery

On your return to the ward, a nurse will regularly measure your pulse, blood pressure and check your dressings. You may have wound drains in place for a short time after your surgery. You can go home with the drain and then come back to the ward to have it removed when the amount of fluid coming out of the drain has reduced. This is usually 4 or 5 days after the operation.

The fear of experiencing pain after surgery is understandable. However severe discomfort is uncommon. After the surgery the ward nurse will ask you about your pain and provide pain relief to meet your needs. Once you are home it is advisable to have some paracetamol at home should you need it, however you will be given some pain relief medication and advice before you are discharged.

The wound is closed by dissolvable stitches under the skin therefore you will not need to have any stitches removed. There will be a dressing or bandage over the wound which is waterproof and should remain in place until your follow up appointment at the clinic. You can shower when you get home but **do not** have a bath where you submerge the wound in water.

The day after your operation you should feel more independent. The Breast Care Nurse or physiotherapist will show you some gentle arm exercises and give you a leaflet with exercises to help maintain your shoulder mobility.

The scar may feel tight to start with but it tends to relax fairly quickly within a few weeks. We encourage you to do gentle exercises to ensure you regain complete range of shoulder movement within 1–2 weeks.

Please ask your key worker or physiotherapist for The Royal Marsden booklet *Exercise and advice following breast surgery*.

We recommend you wear a soft breast support (such as a vest) for the first week. You could then change to a soft non-wired bra for a further few weeks (3–4 weeks).

The typical stay in hospital is one night with a recovery period at home of approximately 3–4 weeks.

General advice

Driving is best avoided for the first 1–2 weeks. Normal strenuous activities such as jogging and sports can be resumed after 4–6 weeks to allow wound healing. The swelling and bruising should subside in a few weeks but it can take six to 12 months for the scars and shape of the breasts to settle.

Employment

If you work, you will need to let your employer know how much time off you will need to take. Normally it is advised that you take 3–4 weeks off work, which includes the week of your operation. If your job is particularly strenuous, you may need a longer period off work.

Please discuss this with your Breast Care Nurse or surgeon. If you need a medical certificate for your employer, the ward staff can provide you with one that covers the duration of your stay in hospital and the expected recovery time at home. If you need further time off after this you may need to ask your GP.

Caring responsibilities

If you have responsibility for the care of someone and are anxious about this, it can be helpful to talk with your GP or Breast Care Nurse. They may be able to offer suggestions for help both during and after your admission.

Whilst you will be able to look after yourself on discharge home, you may need help initially if you care for someone else.

Living alone

If you live alone, you may be concerned about how you will cope after your surgery. Most people are able to manage at home and will be able to wash, dress, cook and do light household tasks. It might be advisable to make some arrangements for help with shopping or heavier tasks (such as carrying wet laundry) for the first week or two. If you do not feel you will be able to manage at home when you are first discharged, please discuss this with your Breast Care Nurse who will be able to advise you.

Follow up

Usually, your surgeon will see you in the outpatients' clinic two weeks after surgery to discuss the results of your operation. The appointment date and time will either be given to you before you go home or posted to you.

Support

It is normal to feel anxious around this time, particularly as this might be your first time in hospital. There are various people who specialise in the diagnosis and treatment of breast cancer that are available to give you support.

A Breast Care Nurse is a senior nurse who has taken additional training to help you when a diagnosis of breast cancer is made. You will be given the name and contact details of a Breast Care Nurse who will be your 'key worker' and the main point of contact for any concerns you might have. Your Breast Care Nurse can support you from the time you attend the breast clinic, through to diagnosis and afterwards if you need any further treatment. They work closely with the breast surgeon and other doctors and health care professionals involved in your care.

Your Breast Care Nurse can provide:

- Information about your diagnosis and its treatments
- Advice on emotional, financial and social support
- Help with practical problems such as body shape, clothing, wound care, skin care and pain relief.

Long-term outlook

Most women are pleased with the results of their surgery. The shape of your breasts will change with time, particularly with changes in weight, ageing, and pregnancy. The results of this surgery will alter as you get older in the same way that natural breast shape changes as we age.

Contact details

If you have any questions or concerns, please contact us on the numbers below.

Breast Care Nurses

Sutton: 020 8661 3027

Chelsea: 020 7811 2813

Alternatively, please call:

The Royal Marsden Macmillan Hotline: 020 8915 6899
(Available 24 hours a day, seven days a week)

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Notes and questions

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References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre
Freephone: 0800 783 7176
Email: patientcentre@rmh.nhs.uk

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Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

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