BREAST RECONSTRUCTION
USING A LATISSIMUS DORSI (LD) FLAP

This fact sheet is for women who are having a breast reconstruction using an LD flap, or are considering having a LD flap reconstruction. It explains what the reconstruction involves, and what to expect before and after the operation.

What is an LD flap reconstruction?

The latissimus dorsi muscle is a large triangular muscle of the upper back. These muscles lie either side of the spine and are involved in shoulder movement.

Breast reconstruction using the latissimus dorsi involves moving part of the muscle, together with the attached blood vessels and usually some overlying skin, and tunnelling the tissue under your skin from your back to your chest.

Breast reconstruction using your own tissue can provide a natural looking mound that will feel soft. This mound will age as a natural breast would and, as it is your own tissue, will vary in size depending on your weight.

You may find that you have a decreased range of shoulder movement after surgery. This will usually improve over the following weeks. Over time your remaining shoulder muscles will become stronger to compensate for the loss of tissue and provide near-normal function. Studies suggest that shoulder function after LD breast reconstruction will be reduced by about seven per cent; however, most people will not notice the absence of the muscle in their usual activities.

This form of breast reconstruction may be used to increase breast volume following breast conserving surgery or for breast reconstruction following a mastectomy. To increase breast volume a breast implant may be placed under the flap. If this is required your plastic surgeon will discuss this with you before your operation. Breast reconstruction using your tissue can be performed at the time of mastectomy (immediate reconstruction) or at a later date (delayed reconstruction).

Your breast surgeon and plastic surgeon will decide whether to perform an immediate or delayed reconstruction in consultation with you. Because of factors relating to your treatment for breast cancer, other circumstances, or your personal preference, immediate reconstruction is not always possible.

Immediate reconstruction

Immediate breast reconstruction is a joint procedure. This means that the two operations – the mastectomy (removal of your breast), performed by the breast surgeon and the reconstruction, performed by the plastic surgeon – are done during the same anaesthetic.

An incision is made around the nipple, allowing the removal of the nipple, areola (darker area of skin around the nipple) and breast tissue while preserving the breast skin. The incision may be on the breast around the areola or in the fold under the breast. The breast skin is then filled with muscle, fat and usually some skin from the back. The blood vessels connected to the muscle remain connected in their new position. An area of skin from the back may be used to replace missing skin from the removed breast and to act as a 'monitoring panel' to ensure the transferred tissue is healthy. Most of the skin of the new breast mound is original breast skin.

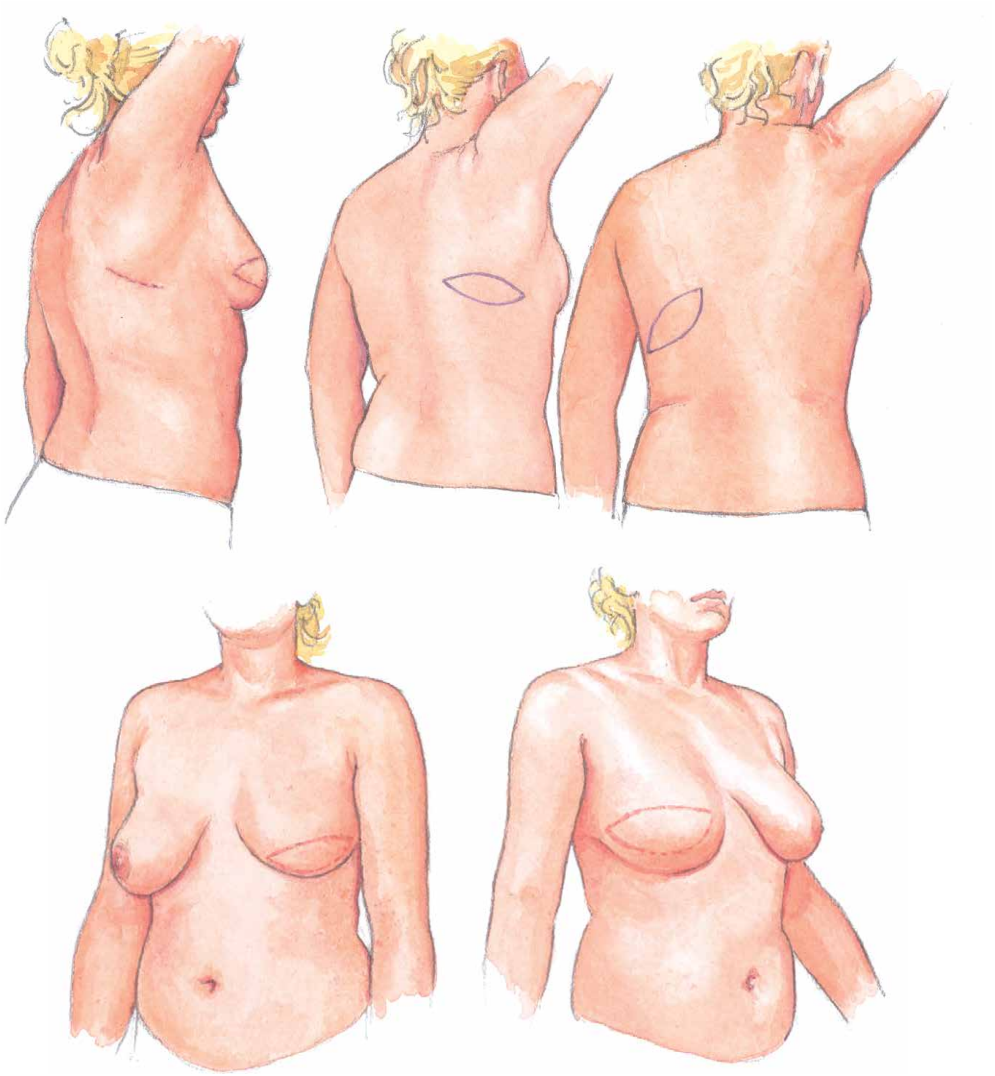

Illustration courtesy of St Andrews Centre for Burns and Plastic Surgery at Broomfield Hospital, Chelmsford UK

Delayed reconstruction

The surgery only involves plastic surgeons because the patient has had a mastectomy at a previous time. The appearance of the newly created breast will appear different as it requires a larger area of skin from the back to replace the skin that was removed at the time of the mastectomy. The end result of this reconstruction is still very good and satisfaction studies show that women having delayed reconstruction are equally satisfied with their reconstructed breast as women having an immediate breast reconstruction.

Nipple reconstruction

If required, a nipple can be reconstructed at a later date, usually at least six months later. This is a day procedure and can be performed under a local or general anaesthetic. After a few months colour can be added to the reconstructed nipple using a semi-permanent tattoo, this is performed at an outpatient clinic appointment.

Restoring breast shape deformity

This surgery only involves plastic surgeons. Depending on the deformity, the transferred tissue may be skin and/or muscle. The aim is to restore the shape and volume of the breast and to provide symmetry with the other breast.

Preparation for breast reconstruction

1. **Consultation with a plastic surgeon**. You will have a discussion with the surgeon and a clinical examination. The clinical examination can be confronting as it involves standing in front of the surgeon while wearing only underpants. This lets the surgeon identify what style of reconstruction is best for you. A breast care nurse is available to be with you at this examination if you would like. If you are considered a good candidate for this procedure, you will be asked to sign a consent form and you will be placed on the Royal Melbourne Hospital waiting list.
2. **Blood tests and clinical photography**.
3. **Appointment with a breast care nurse**. The breast care nurse will discuss your planned surgery in further detail with you. If you wish, you can look at breast reconstruction photographs at this time.

   This appointment can be held before your consultation with the plastic surgeon if you prefer. This may help you feel more informed for your consultation.
4. **Pre-admission clinic appointment at the Women's**. Allow approximately one and a half hours for this appointment. Your medical history will be reviewed and there will be further preparation for surgery with the anaesthetists and nursing staff. You will be asked about any medications you are taking, including prescription, herbal or alternative medicines. You may be advised to stop taking certain medications before surgery.
5. **If you are a smoker**. Smoking is considered to be a risk factor for this type of surgery. If you are a smoker, we advise that you stop smoking at least three weeks before surgery and for as long as possible after surgery. We recognise that stopping smoking is very difficult at any time, and particularly at times of stress; however, smoking increases your risk of wound healing complications.

   Your GP can refer you to the QUIT program if you need help to stop smoking.
6. **A healthy body weight** is preferable for best results. Your plastic surgeon will advise if weight loss is recommended prior to surgery.

What do I need to bring into hospital?

A supportive bra

We will provide one bra post-surgery; however, it is strongly recommended that you purchase another. We recommend a wireless bra that has wide shoulder straps as well a wide supportive back. A bra with a front fastening can be helpful. A lycra-type non-wired one-piece bra (such as the Ahh Bra™) may be suitable, provided you are comfortable stepping into it. It can sometimes be difficult to identify the correct size prior to reconstruction. We advise you buy a size larger (across the band) than what you normally wear to allow room for swelling; for example, a 16C instead of a 14C. Patients are required to wear a bra day and night for six weeks; you will be advised at what stage to start wearing it after your operation (usually day three or four). The bra helps to support the newly formed breast, reducing swelling and bruising while supporting the shape.

Toiletries, slippers and night wear

Loose fitting, short-sleeved pyjama tops with buttons or loose-fitting night gowns are recommended while in hospital. Avoid bringing in jewellery (especially rings, as your hands may swell after surgery) and other valuables.

What to expect after surgery

You can expect to spend between three and five days in hospital.

The length of the operation can vary but may be as long as four to six hours and you will probably feel very drowsy for some time afterwards.

After surgery you will spend some time in the recovery unit before being transferred to the ward. You will be monitored very closely in the first few days. This includes very close observation of your newly created breast mound as well your back. Both surgical and nursing staff will check for any sign of bleeding or any other concerns at either the breast or donor site. If there are any complications it may be necessary for a return to surgery.

You will be kept quite warm in the first 24 to 48 hours; this is to support good blood supply to the breast flap.

After surgery you will be asked to keep your arm movements to a minimum. This will allow your tissues to heal. You will receive instruction about this from the physiotherapist.

Your back may feel very tight following surgery; the nursing staff will assist you to rest in a comfortable position. You may be fitted with a Tubigrip bandage; this will help to support both the reconstructed breast and the back.

Incision

The incision to the breast mound and flap size will vary depending on your specific surgery. Your plastic surgeon will discuss these details with you beforehand. The flap is monitored by checking the skin from the back in its new position on the breast mound. There will be no stitches (sutures) at the surface of your incision. There will be dissolvable sutures under the skin and the incision will be covered with surgical glue.

The incision to the back is quite long. It generally extends horizontally across your back under your shoulder blade on the same side as your reconstructed breast. Occasionally this scar may run vertically along the side of your back. It's best to discuss the positioning and size of the scars with your surgeon.

The healed scar line is generally well concealed in this position. This suture line has no sutures at the surface of your skin. There will be dissolvable sutures under the skin and the incision will be covered with surgical glue.

When surgical glue is used to cover the suture line it will appear as though there is no dressing. This glue is waterproof. You will usually be asked to avoid getting this area wet for the first 48 hours. After this time you can shower normally. It is best to avoid directing the stream of water from the shower nozzle onto the suture line as this may increase the amount of bruising or swelling. The temperature of the water should be warm rather than hot.

Two weeks after surgery the suture line will be covered with Micropore tape (available at any pharmacy). This will help to minimise the scar. This is recommended for six weeks and you will need to change the tape every five to seven days. Rubbing creams and oils into the suture line is discouraged until after this six-week period.

Drain tubes

You will have several drains following this surgery; one in your breast and usually two in your back. The drains remove excess fluid from the site of the operation and remain in place until you have less than 50mls of drainage in a 24-hour period. This will generally take two to five days. The drain tubes may cause you some discomfort.

Your surgeon will decide when to remove the drain tubes. It is not unusual for patients to go home with a drain tube still in place, especially in the back. If this is the case, a nurse will visit you at home to remove it. It is advisable to have pain relief half an hour before the drain is removed, as the procedure can be painful.

When the drain tube is removed the small hole will be closed with a dressing, this must be removed after 48 hours.

Discuss any arrangements required for this home visit at your pre-admission appointment.

Catheter

During your operation you will have a urinary catheter passed into your bladder. This will allow you to pass urine in the first 24 to 48 hours after surgery without getting out of bed. Once you are more comfortable this will be removed.

Oxygen

After your operation you will be given oxygen either by a mask or nasal prongs. This will continue until your oxygen levels return to normal.

Intravenous infusion

An IV drip (intravenous infusion) will be inserted to help hydrate you in the first 24 hours after surgery. You may also receive pain relief through the drip.

Sequential compression devices (SCD)

Due to the surgery being quite lengthy, there is an increased risk of developing a deep vein thrombosis (DVT). A DVT is a blood clot that forms in the veins of the leg. To reduce this risk you may be prescribed daily blood thinning injections and be given SCDs to wear. SCDs are disposable sleeves that are wrapped around a patient's legs, or boots worn on the feet. Air is pumped into the channels within the sleeve or boot, massaging the calves or feet and improving circulation.

Pain

You can expect moderate discomfort or pain following surgery. It is often described as a feeling of tightness across both the chest and back. Most patients manage this well with the help of pain medication and support from nursing staff and your physiotherapist. They will be able to show you positions to reduce discomfort, such as being supported by several pillows in a sitting position while resting in bed or a recliner.

Physiotherapist

A physiotherapist will visit you several times while you are recovering from your surgery. The physiotherapist will show you:

» techniques to reduce the risk of a chest infection following a general anaesthetic

» ways to protect your healing wounds when moving

» exercises to help regain strength and movement in your arm(s). The physiotherapist, in conjunction with the surgeon, will advise when to start these exercises.

When can I get out of bed?

You will usually be encouraged to get out of bed on the first day after your surgery.

Arm exercises

Following surgery you may be advised to limit your arm movement to avoid damaging the newly created breast. Your surgeon and nurses will advise you of any movement to avoid. This restriction of your movement may increase the risk of developing a stiff shoulder. The physiotherapist will show you arm exercises, like the examples below, to reduce this risk.

Clasp your hands in front of your chest.
Rock your arms from side to side taking your elbows away from the side of your chest.

Clasp your hands together in front of your chest with your elows bent.
Stretch both arms out at shoulder height and return to starting position.

Place your hands on top of your head or around your neck.
Slowly bring your elbows as close together as possible.
Return to the starting position.

Images and exercises courtesy of the Allied Health Department, Royal Melbourne Hospital

Appearance

It is wise to look at your suture lines and newly created breast as soon as you feel ready. The breast care nurse is available to do this with you. Looking down at your chest and then in the mirror is usually a good idea. By doing this you prepare yourself for change. The more familiar you become with your appearance the more confident you will feel.

The number of scars and the length of the back scar can be quite confronting. While everyone heals differently most patients find that with good advice these scars become minimal over time. The breast will initially appear swollen, a little firm and sometimes quite bruised. This will take several weeks to settle.

It will take up to six months for your reconstructed breast to drop and settle into its final shape. Your back will feel very tight and sometimes a little swollen for a similar amount of time. Most patients will find that both their breast and back have reduced sensation. The degree to which sensation returns varies between individual patients.

Driving

Because of limited arm movement and the time needed to recover from tiredness as a result of your surgery, it may take six weeks before you are able to drive.

Scar management

Our aim is minimise any scarring as much as possible. We use different techniques at different times to achieve this:

Week 1 to 6

Micropore is paper tape that provides gentle support to your wound and helps to flatten the scar. The tape is to be worn continuously and changed once a week. You are able to shower with the tape on, but ensure you dry it off afterwards. Do not use any creams or oils on your scars during this time.

Week 6 onwards

Massage and moisturising with a gentle cream (e.g. Cetaphil, sorbolene) will help soften the scar and break up any underlying scar tissue. This will encourage the scar to become flatter and smoother. Massage should be done in a firm circular motion along the length of the healed scar. Massage any scars three to four times a day for at least five minutes each time.

6 weeks to 12 months

Silicone gels and sheets can be used to help lock in moisture as well as put pressure on a scar to flatten and soften it. Silicone should only be used on wounds once they are completely healed (normally after 6 weeks, but please check with your doctor/nurse). They can be used for many months; however, most silicone sheets need to be applied gradually in case your skin has an allergic reaction to them.

Follow up appointments

Approximately one week after your discharge you will have a follow up appointment at the Royal Melbourne Hospital's Complex Wound Clinic. This gives the plastic surgeons and the clinical nurse consultants an opportunity to assess how you are healing. The nurses will instruct you on any scar and wound management needed.

Approximately four to six weeks after surgery you will be seen in the Breast Plastics clinic. At this appointment your wound healing will be reviewed and the options for any further surgery needed or desired can be discussed.

For more information

For more information and advice or if you require medical assistance please contact:

Breast Care Nurse

The Royal Women's Hospital
(03) 8345 2000 (switchboard, ask for pager 53100)
(03) 8345 3565 (Monday to Friday during business hours, leave a message if phone unattended)

Breast Care Nurse

The Royal Melbourne Hospital
(03) 9342 8120