NHS
Royal Cornwall Hospitals
NHS Trust

Delayed Latissimus Dorsi breast reconstruction

affix patient label

What is a delayed breast reconstruction?

When your breast reconstruction is done some time after your original mastectomy.

The aim of breast reconstruction is to produce a replacement breast with a satisfactory appearance both in and out of clothes, avoiding the need for an external prosthesis in the bra. This can be achieved by either:

a) producing a 'replica' sized and shaped breast to the one which has been lost - matching the other (contralateral) breast.

   or

b) if it is not possible or desirable to produce a replica breast, then your surgeon may suggest to you producing the best breast possible (usually smaller and more youthful). In this case you will need cosmetic surgery to the other (contralateral) breast in the future if you wish it to match your breast reconstruction.

Latissimus Dorsi (LD) breast reconstruction

What is a Latissimus Dorsi breast reconstruction?

The Latissimus Dorsi myocutaneous flap (LD flap) is an excellent reconstructive method for producing a natural, larger breast. The LD muscle is a large triangular back muscle of variable thickness. A variable sized skin 'paddle' on the back over the muscle is used to provide the skin needed for the new breast. This leaves a scar over the back which in many cases is hidden under the bra strap.

The muscle, skin and fat of the back is kept healthy by blood vessels and nerves that enter from the axilla (armpit). All the freed tissue from the back is passed through a tunnel into the axilla and through to the front of the body. It is then sculpted and folded into the ideal shape to make the breast mound.

The breast reconstruction is completed by trimming the skin paddle into the exact shape required to form a 'patch-work' with the existing skin.

Autologous reconstruction (implant free) – This is used when there is enough of the body's own tissues to make the breast. Sometimes it may be possible to add your own fat to complete your reconstruction at a later operation (fat grafting/lipomodelling), rather than needing to use an implant.

Implant assisted – When there is not enough volume from the muscle and fat to make the new breast, a silicone implant or tissue expander may be placed behind the muscle to produce the extra volume needed.

Are there any alternatives?

Although delayed reconstruction is essentially a reconstructive cosmetic procedure, it is perhaps better considered to be the completion of the surgery for suitable patients who have finished their cancer treatment. Nevertheless, it is not a medical necessity and should only be carried out in patients medically fit and motivated enough to achieve a good recovery with a low risk of serious or health threatening complications.

A non-surgical alternative would be to wear an external breast prosthesis in a specially designed mastectomy bra.

How do I prepare for it?

Most patients attend a pre-admission clinic where we will ask for details of your medical history and carry out any necessary clinical examinations and investigations. Please ask us any questions about the procedure, and feel free to discuss any concerns you might have. You will also have the opportunity to discuss any concerns or queries with a member of the breast care nursing team.

You must **not** eat anything for at least **6 hours** before your operation. This is to make sure your stomach is empty when you have your anaesthetic. Drinks containing fats (e.g. tea or coffee with milk) and sweets all count as food.

You **can** drink water or a drink without fats in it (e.g. black coffee) until **2 hours** before your operation. You may also have small sips of water to take tablets. There is a hospital leaflet about having an anaesthetic. Ask the staff for a copy if you would like one.

You will be given a general anaesthetic during the operation which will keep you asleep. The anaesthetist will come and see you before your operation to discuss this with you. You will be able to ask them questions about the anaesthetic.

A member of the surgical team will also see you on the ward. This is usually the surgeon that will perform your operation. Feel free to ask any questions you have about the operation or what will happen after the surgery.

The surgeon will spend a short time with you measuring and planning the exact steps of the operation and will usually draw and make notes of important landmarks on your skin with a special marker pen. This is called the 'marking-up' process and may be done whilst you are sitting, standing and lying down. An arrow will also be drawn on the side to be operated on and a check made that this consent form has been completed and signed.

Part of the 'marking up' process will involve taking photographs in a special private photography room after the markings have been completed. This is done as a record of your operation planning and forms an important part of the medical record of your treatment. You have the right to decline photographs being taken and they will only be taken after your written consent has been given and you are happy about where they will be stored and who will have access to viewing them.

What does it involve?

Firstly, your surgeon will prepare the area of your mastectomy scar and free up or remove any unhealthy skin or excessive scar tissue in the chest wall and axilla (armpit).

While you are asleep you will be carefully turned onto your side and protected with cushions, supports and padding. After your LD muscle has been freed (harvested) from its usual position in your back, it is passed through a tunnel in your axilla (armpit) into the front and the back scar is closed with internal stitches. Your surgeon will leave one or two soft plastic drainage tubes within the space where the muscle was, to drain away the tissue fluid which will be produced as a result of your surgery. The surgeon may also place a special tube known as a 'pain catheter' for giving painkilling medicine directly into the area for up to 48 hours after surgery.

For the final part of your operation you will be gently turned onto your back so that the flap may be sculpted and formed into your new breast. During this process of 'insetting the flap' the operating couch may be adjusted several times so that you are in an almost sitting up position. This allows the new breast shape to be observed with gravity in different positions and helps the surgeon create as natural a breast as possible.

All the stitches used are dissolvable and paper stitches (steristrips) are used to cover the scar lines. A waterproof dressing is put over this. You should leave the dressing intact if possible until you see your surgeon in the outpatient clinic.

What happens afterwards?

The number of nights patients stay in hospital will vary but most will stay 2 or 3 days. The drains will need to stay in until the amount draining over a 24 hour period is less than 40 mls. This generally takes between 3 and 5 days. You will be able to go home with the drains in and the district nurses will take over the management and removal of the drain.

Before you go home, the nursing staff will want to be sure that you are well enough and that the conditions at home are such that you can manage safely. They will offer advice about dressings and painkillers. Taking regular simple painkillers is recommended for the first week. You will be prescribed stronger painkillers for the first couple of days if necessary.

You will be given a leaflet about arm and shoulder exercises depending on the type of axillary surgery you have had in conjunction with this breast operation.

You will be able to shower briefly but you need to be careful to keep your dressings dry.

Your surgical and breast care nursing team will advise you of any special instructions about your postoperative care. You will need a full cup, well-fitting support bra to wear over your dressings night and day until you are seen again back in the clinic.

What are the risks of the operation?

As with all procedures, there are risks from having this operation:

General Risks

Risk from the anaesthetic: The risk to a healthy patient of problems arising from an anaesthetic is very small. However, each year in the UK a few healthy people will die or suffer serious heart lung or brain injury following an anaesthetic. For a woman who is otherwise in good health, the risk of a serious complication due to general anaesthesia is less than 1%.

Bleeding: This is usually minor and is stopped during the operation. Occasionally, patients develop a collection of blood called a haematoma which requires a second operation. For axillary surgery this is less than 1%.

Infection: All surgery has a risk of infection. If the wound becomes red, hot or weeps, or you feel unwell you should consult your doctor.

Pain: A degree of pain is likely after any surgery. We aim to manage your pain with painkillers to an acceptable level postoperatively. There is evidence to suggest that if we get on top of your pain in the early postoperative period we can reduce the chance of it becoming a chronic problem. If the pain or numbness and tingling continues to be troublesome please let your surgeon or breast care nurse know and we can give you a medication to manage the pain.

DVT/PE: With all surgical procedures there is a risk of developing a clot in the deep veins of the leg, deep vein thrombosis (DVT). In a very small number of patients a bit of this clot breaks off and lodges in the lungs. This is a pulmonary embolus and in very extreme cases can be life-threatening. Your surgical team will prescribe you compression stockings and/or blood thinning medication after careful assessment of your individual risk.

Numbness: The nerves which supply sensation to the skin may be disturbed or need to be sacrificed during the procedure. You may experience numbness and discomfort in your back, arm and new breast. The numbness usually lessens slowly over time, but may persist forever in some places. Most patients become accustomed to the numbness. Areas that are prone to rubbing or trauma must always be checked and caution taken with the sun, hot water bottles, radiators etc. when there is the possibility of serious trauma or damage to the numb skin.

Risks specific to Latissimus Dorsi (LD) reconstruction

Donor site morbidity

Extent of scar: The back scar may be tight and if there have been healing problems may become widened, thickened or unsightly. It may not be totally covered by a bra strap.

Seroma: Up to 80% of patients may have a repeated build up of harmless tissue fluid in the space where the muscle was. This may need to be drained with a needle several times in the first few months after surgery. Sometimes it is necessary to use a steroid injection or re-insert a drain but rarely it is necessary to perform further surgery. Most seromas settle within 6 months.

Uneven back contour (especially after the extended fat harvest of an autologous LD): Depending on the amount of extra fatty tissue removed with the LD muscle, the contour of the back may become quite asymmetrical. This improves over the first couple of years but is likely to always be different from the other side.

Back skin healing problems and necrosis: Depending upon the type of LD 'harvest' there is a risk of up to 10% of all patients having an area of the skin alongside the scar which does not heal well. This may form a scab or even open slightly requiring special dressings and treatments which will be coordinated by the breast care nursing team. Rarely this might require further surgery to heal. This is particularly a problem in recent cigarette smokers, diabetics, those with some autoimmune diseases or patients with poor skin quality.

Reduced shoulder strength and function problems: Significant reduction in strength or impairment of the shoulder and back is rare. Within 2-3 months almost all patients are able to perform the activities they did before the operation (including swimming, golf, tennis). The loss of an LD muscle only tends to affect those women who perform specialised leisure activities like rowing, cross country skiing, mountain climbing etc. Most patients manage extremely well without their LD muscle and there appears to be very little functional weakness. To achieve the best recovery of function however does require a well motivated patient and a planned period of exercise and rehabilitation. Additional physiotherapy may be required to restore full shoulder mobility.

Flap and new breast

Partial or full flap failure: The LD flap is a very safe and reliable method of reconstruction and the risk of the flap not surviving because of a poor blood supply is very small (less than 1 women in 100). If some of the tissue does not survive then it may require intensive observation, frequent dressing changes and rarely, further surgery.

Twitching of flap: Twitching of the LD muscle may produce movement of the new breast. This is usually not problematic, but occasionally requires a Botox injection to the muscle or a minor operation to divide the nerve in the armpit.

Atrophy (volume loss): The LD flap reconstruction is composed of muscle. Muscles that are not used will lose their tone and bulk – known as 'disuse atrophy'. Your breast reconstruction will be created to be larger than the desired final volume to allow for this. Even so, some patients may lose significant volume over the first two years. Fat grafting can sometimes be used to correct this.

Fat necrosis (lumpiness, volume loss): Depending on the proportion of additional fat attached to the LD muscle there is a possibility that some areas may become firmer and lumpy where some of the fat doesn't survive and becomes scarred to the surrounding tissues. Any new lump in the reconstruction, although extremely unlikely to be cancerous, must be fully investigated with biopsies when necessary. This can cause additional anxiety until the diagnosis of simple fat necrosis has been confirmed. Further surgery for fat necrosis is unlikely.

Implant assisted Latissimus Dorsi flap reconstruction

Palpable / visible implants: No breast reconstruction can replace the breast you have lost in terms of feeling and movement. Close palpation of the breast may reveal the presence of an implant. The implant may also move when the chest muscles are tensed. You may also notice some rippling of the implant.

Rotation and movement: Shaped or 'tear drop' implants can rotate.

Contracture: A contracture is a tight fibrous capsule that the body forms around the breast implant causing it to become less natural looking. Approximately 1 in 4 women will develop a contracture. It should be regarded as a side effect of implant surgery rather than a complication and it is not possible to predict pre-operatively. However, smoking and any infection such as urinary tract or dental infections dramatically increases the risk. Your surgeon will have discussed the risks of radiotherapy to an implant based reconstruction as part of your preoperative discussion. There is an increased chance of developing a capsular contracture after radiotherapy.

Need for further surgery: There is a significant (more than 50%) chance that you will need some further aesthetic (non-cancer surgery) at some point in the future. This may be a small adjustment to the reconstruction or you may need the implant replacing.

….and finally

As with any oncoplastic and reconstructive breast procedure, it is not possible to guarantee exact symmetry of shape, volume or the perfect cosmetic outcome. It may be necessary to have further surgery at any time in the future either to refine the cosmetic outcome or to treat a complication as above.

If you would like this leaflet in large print, Braille, audio version or in another language, please contact the General Office on 01872 252690

Patient copy

CONSENT FORM 1
PROCEDURE SPECIFIC PATIENT AGREEMENT

NHS
Royal Cornwall Hospitals
NHS Trust

NHS number: .....
Name of patient: .....
Address: .....
AFFIX PATIENT LABEL
Date of birth: .....
CR number: .....

_____ **side**

Delayed Latissimus Dorsi breast reconstruction

STATEMENT OF HEALTH PROFESSIONAL (to be filled in by health professional with appropriate knowledge of proposed procedure, as specified in consent policy)

I have explained the procedure to the patient. In particular, I have explained the intended benefits and summarised the risks, as below:

- *Produce a replacement breast.*

Significant, unavoidable or frequently occurring risks:

- *Bleeding, infection, DVT/PE, pain, numbness. Flap complications: Necrosis, twitching, atrophy and fat necrosis. Donor site: Skin necrosis, seroma, unsightly scar, uneven back contour and reduced shoulder strength. Implant complications: Palpable/visible implants, rotation and movement, contracture, need for further surgery, asymmetry.*

Uncommon but more serious risks:

- *Partial or full flap failure, skin necrosis.*

Rare but serious risks:

- *Anaesthetic risk which includes a very small risk to life from complications such as heart attack and stroke .*

Any extra procedures which may become necessary during the procedure:

- *Blood transfusion (required very infrequently)*
- *Other (please specify):*

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

I have given and discussed the Trust's approved patient information leaflet for this procedure: Delayed Latissimus Dorsi breast reconstruction CHA3273 which forms part of this document.

I am satisfied that this patient has the capacity to consent to the procedure.

This procedure will involve: ☐ General and/or regional anaesthesia ☐ Local anaesthesia ☐ Sedation

Health Professional signature: ..... Date: .....

Name (PRINT): ..... Job title: .....

STATEMENT OF INTERPRETER (where appropriate)

I have interpreted the information above to the patient to the best of my ability and in a way in which I believe he/she can understand.

Interpreter signature: ..... Name (PRINT): ..... Date: .....

affix patient label

STATEMENT OF PATIENT

Please read this form carefully. If your treatment has been planned in advance, you should already have a copy of the patient information leaflet which describes the benefits and risks of the proposed treatment. If not, you will be given a copy now. If you have any further questions, do ask - we are here to help you. You have the right to change your mind at any time, including after you have signed this form.

I agree to the procedure or course of treatment described on this form.

I understand that you cannot give me a guarantee that a particular person will perform the procedure. The person will, however, have appropriate experience.

I understand that I will have the opportunity to discuss the details of anaesthesia with an anaesthetist before the procedure, unless the urgency of my situation prevents this. (This only applies to patients having general or regional anaesthesia).

I understand that any procedure in addition to those described on this form will only be carried out if it is necessary to save my life or to prevent serious harm to my health.

I understand that tissue samples will only be taken in relation to the procedure explained to me. No samples will be taken for quality control, clinical education or research purposes.

I have been told about additional procedures which may become necessary during my treatment. I have listed below any procedures **which I do not wish to be carried out** without further discussion.

.....

I have received a copy of the Consent Form and Patient Information leaflet: Delayed Latissimus Dorsi breast reconstruction CHA3273 which forms part of this document.

Patient signature: ..... Name (PRINT): ..... Date: .....

A **witness** should sign below if this patient is unable to sign but has indicated his or her consent.
Young people / children may also like a parent to sign here (see guidance notes).

Witness signature: ..... Name (PRINT): ..... Date: .....

CONFIRMATION OF CONSENT (to be completed by health professional when the patient is admitted for the procedure, if the patient has signed the form in advance).

On behalf of the team treating the patient, I have confirmed with the patient that they have no further questions and wish the procedure to go ahead.

Health Professional signature: ..... Date: .....

Name (PRINT): ..... Job title: .....

Important notes (tick if applicable):

☐ See advance decision to refuse treatment ☐ Patient has withdrawn consent (ask patient to sign/date here)

Patient signature: ..... Name (PRINT): ..... Date: .....

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