

Having a Free Tissue Transfer Flap – Lower Limb

Information for patients



Leeds Major Trauma
Centre

This leaflet aims to help you and your family understand more about the treatment of a free tissue transfer and how to manage this on your discharge from hospital.

This leaflet will provide you with general information about coping with a free tissue transfer flap and what to expect during your healing process. It will also provide you with information on dressings, wound care management and clinic appointments.

If you have any other questions that the leaflet does not answer or would like a further explanation, please ask your Surgeon or Nurse Specialist.

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Plastics Dressing Clinic

Opening Hours: Monday-Thursday 08:00am - 6:00pm,
Friday 8:00am - 5:30pm

0113 392 3628

email: Leedsth-tr.handsandplastics.nhs.net

Outpatients Orthopaedic Clinic

0113 392 3628

Ward L22

0113 392 7422

Ward L10

0113 392 7410

Getting in touch

If your enquiry is regarding wound management, please contact Plastic Dressing Clinic and out of hours please contact the ward.

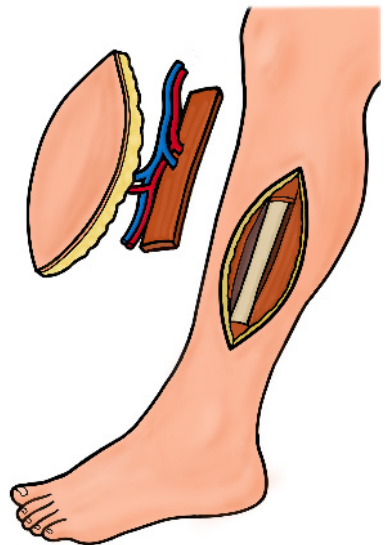
In a non-emergency please contact your GP. If you require urgent medical attention, please attend your local Accident and Emergency Department.

What is a Free Tissue Transfer Flap?

A free tissue transfer flap is a type of surgery used to rebuild the shape of a skin and muscle defect following trauma and/or surgical treatment. A tissue flap includes muscle, blood vessels and sometimes skin and fat, which is removed from one area of the body and reattached (transplanted) to another part of the body for coverage of the skin and muscle defect.

This ability to transplant living tissue from one region of the body to another has greatly facilitated the reconstruction of complex defects.

A free tissue transfer may be offered to you if you are undergoing surgery for an open fracture or revision of osteomyelitis (bone infection) as a form or reconstructive treatment to aid in your recovery.



What type of Free Tissue Transfer can I expect to have?

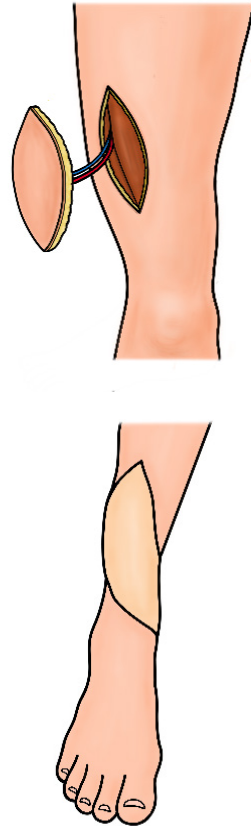
There are many different types of free tissue flaps that you could expect to have, and your surgical team will help prepare you for this prior to your operation. You may be asked to attend different types of scans (CT, MRI, CT angiography) prior to surgery to aid the doctor in choosing an appropriate surgical management plan for you.

Below are a few of the more common tissue flaps we perform:

Anterolateral Thigh Flap (ALT)

An ALT flap is taken from the thigh which comprises of skin, fat and muscle. Once this flap has been removed the thigh is stitched back together to leave a longitudinal scar.

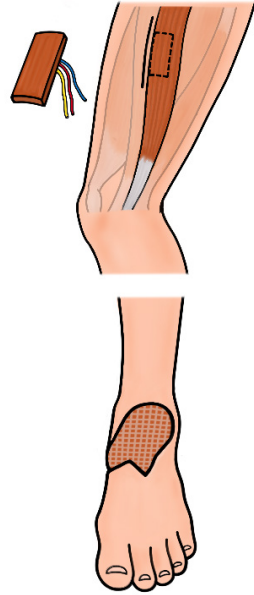
Thigh tissue is often thicker than other flaps so can initially appear bulky. A compression garment or a secondary surgical procedure to thin the flap can often help to reduce this bulkiness once the flap has fully healed.



Gracillis Flap

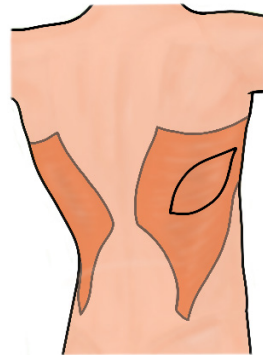
A gracillis flap comprises of muscle. This muscle flap is commonly taken from the inner thigh. Once the muscle is removed the thigh is stitched back together leaving a longitudinal scar. As this flap comprises of muscle, a skin graft will be applied over the top of the flap to aid in healing.

A skin graft involves shaving the top layer of skin, commonly taken from the thigh. The skin graft donor site will usually heal by itself within 2-4 weeks.



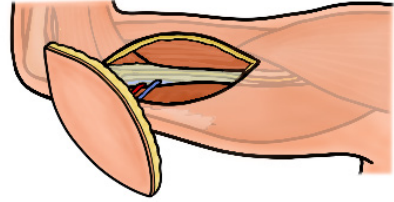
Latissimus Dorsi Flap

A latissimus dorsi flap is more commonly comprised of muscle but can also include fat and skin. This muscle flap is taken from the scapular/mid to upper back region. Similar to the gracillis flap, a skin graft will be applied over the top of the muscle flap.



Lateral Arm Flap

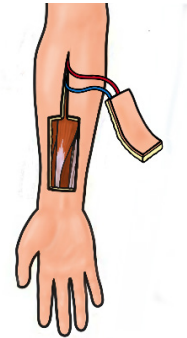
A lateral arm flap is usually taken from the upper arm between the shoulder and elbow level. Your arm will be closed directly with sutures. This flap type will often be chosen for coverage of a small or medium sized defect.



This is an excellent flap choice for areas that require thinner skin coverage, such as feet, to allow for the use of normal footwear.

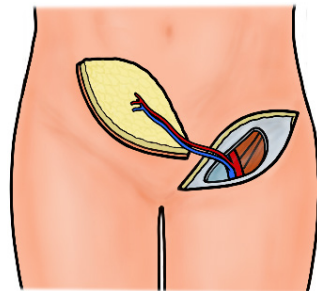
Distal Arm Flap

A distal arm flap is usually taken from the lower arm between the wrist and elbow. As above, this type of flap is used to cover small to medium defects that require thinner skin coverage, such as the ankle or foot. A skin graft will be applied to your arm.



Inguinal Flap (groin)

An inguinal flap comprises of skin and fat taken from the groin. This flap is more commonly used to cover a smaller defect area where muscle coverage is not required.



General Information

What to expect after surgery?

After your surgery you will be transferred from theatre to L8 (HOBs), which is our specialist orthopaedic/plastics high observation unit. Your care will be managed by a member of the nursing team. Your free flap will be monitored carefully within the first 24-48 hours to check the temperature, colour and doppler ultrasound (records the flow of blood through the blood vessels). During this time you will also remain on bed rest with slight elevation of affected area to take pressure off your free flap and to also minimise bleeding.

Within the first 24-48 hours your room/ward environment will be kept at a hot temperature. This will encourage the blood vessels to expand, which ensures adequate blood flow to the free flap.

After this 48-hour period if your doctor is happy with your flap, you will be stepped down to a regular ward where you will no longer have regular flap observations. As you no longer require high observation, you will no longer have 1:1 nursing. Where possible you will have your own side room. Some patients feel this change can be quite isolating, however you will continue to receive care from the ward nursing team and regularly reviewed by doctors and your specialist nurse.

Physiotherapy

Around day 3-5 you will start a dangling regime when your doctor is happy with your progress. You will initially start the dangling process with the physiotherapist on the ward.

Dangling: You will lay or sit on the edge of the bed with the affected limb dangling over the edge. This allows blood flow to the flap in a controlled manner to minimise excessive bleeding. The dangling regime usually follows a five minutes per day progression for a maximum of five days. **Please note,** your dangle protocol can last longer or shorter based on how your flap responds.

Dangling protocol:

Day 1: 5 minutes

Day 2: 10 minutes

Day 3: 15 minutes

Day 4: 20 minutes

Day 5: 25 minutes

Flap observations: During dangling the physiotherapist/nurse will document the colour and warmth of the flap. If this is satisfactory you will continue for longer dangles. If there are any concerns your dangle regime will be put on hold until your doctor is happy to continue.

After the dangling protocol is complete your flap will be able to tolerate mobilising/dangling for extended periods. Your physiotherapist will work with you to ensure you are safely mobilising to your normal level prior to your discharge home.

Some patients may experience increased pain and a throbbing or whooshing sensation following the first several days of dangling. Please request pain relief from your nurse as and when required.

Psychology

Emotional implications of Lower Limb Free Flap Surgery:

Throughout your treatment, you may experience emotions such as sadness, worry or anger surrounding your free flap surgery – this is normal. You may also find that your free flap surgery does not cause you any difficult emotional reactions as people cope differently with their treatment. It is important to consider the circumstances around needing this surgery. Being involved in a traumatic accident may mean you are more likely to experience a difficult emotional reaction.

A change in appearance of your leg may cause emotional reactions such as worry, upset or affect your self-confidence. It is important for you to slowly familiarise yourself with the appearance of your leg by practicing looking at your free flap and touching it, when appropriate to do so. A member of staff involved in your care will be able to support you with this.

There are clinical psychologists who are trained to talk through any difficult feelings you may have. If you think you would benefit from this, please speak with a member of staff involved in your care who can refer you to our services.

It is worthwhile thinking about speaking with a clinical psychologist if you are experiencing any of the following:

- Intense feelings or bodily sensations that are overwhelming.
- Struggling with the appearance of your injury or new scars.
- Uncontrollable anger or feeling irritable.
- Feeling panicky or anxious.
- Sleeping difficulties.
- Feeling isolated, withdrawn or as though you have no one to talk to.

Pain

No surgery is without pain; however, your medical team will ensure you are prescribed pain medication to help reduce pain and discomfort post-operatively. During your surgery your anaesthetist will administer an analgesic block (similar to an epidural) to your limb and your surgeon will administer local anaesthetic to the incision sites to reduce pain.

You will experience swelling post-operatively as part of normal healing process, however this can be quite uncomfortable. Elevation is recommended to reduce swelling. If you have had any bone involvement, please do not take any anti-inflammatory medication, such as Ibuprofen and Naproxen as this can delay healing of the bone.

Prior to your discharge home the hospital will provide you with pain medication to usually last you until your next hospital appointment. If you require any further analgesia, please contact your own GP or ask for advice from your clinical nurse specialist.

Dressings

During your operation your surgeon will dress your free flap with a Vaseline coated dressing and a bandage. The bandage will have a window around your flap to allow for staff to monitor your flap effectively without having to remove your bandages and disturb the healing process. Occasionally your doctor may splint your flap with plaster of paris to reduce your range of movement initially after surgery.

The area where your flap was taken from (donor site) will be dressed with paper strips and a padded dressing covering the surgical site. Dependant on the flap your doctor has chosen for you (please review pages 5-6) you may also require a skin

graft. If your doctor chooses to take a skin graft you will also have a fibrous, bulky dressing applied to your thigh. This dressing will remain in place undisturbed for 10-14 days after surgery to allow for full healing. This will minimise pain when removing this dressing. Patients have previously stated that the skin graft site can often be more painful than the flap itself.

Dressings should remain undisturbed, unless advised otherwise by nursing staff.

Complications

Although free tissue transfer flaps are regularly carried out within this trust. It is important to note that all surgery comes with certain complications, such as scarring, infection, wound breakdown or bleeding.

Free tissue transfers have around a 4-8% failure rate due to the complexity of the procedure. This failure rate can also increase dependant on other comorbidities such as diabetes, high risk of blood clots, previous surgery or injury. Although precautions are taken to reduce these complications, they can sometimes occur due to the complex nature of this procedure. Blood thinning injections will be given to you after your operation to reduce the risks of developing a blood clot and can often be prescribed for six weeks following your surgery.

What can I do to reduce complications?

You can improve your surgical outcome by ensuring strict elevation of the flap and keeping the flap warm for the first 48 hours after surgery.

Smoking tobacco, e-cigarettes or any other substances can have a major impact on your recovery. Nicotine constricts blood vessels, which can significantly increase the risk of the flap dying. Smoking also impacts wound healing and can increase your risk of developing an infection. It is therefore advised not to smoke throughout your treatment. Many patients use this treatment as an opportunity to stop smoking and if you require further support, please speak to your nurses or doctors on the ward for referral to smoking services.

What to expect after you are discharged home?

Following your discharge home, the ward will arrange for you to have follow-up appointments at the hospital. One week following your discharge you will attend the Plastic Dressing Clinic, where nurses will re-dress your wounds and check for signs of healing. You may be made additional appointments to attend this clinic if they feel necessary.

You will also receive an appointment for Fracture Clinic, to see an Orthopaedic Doctor if your injury is also involving bone.

Please contact your specialist nurse with any questions you have on discharge.

Frequently Asked Questions

How long will my hospital stay be?

You should expect to stay in hospital for 5-7 days. This may differ from patient-to-patient dependant on how well you are healing, your progress tolerating physiotherapy and if you require any further surgery.

Can I drive after my operation?

It is not up to your consultant if you are fit to drive, please contact your insurance company directly to ensure you are covered under your policy.

When can I go to the gym?

Every patient heals at different rates, but at six weeks you can begin to gradually increase your activity. If you are unsure, please contact your specialist nurse on the mobile number provided.

Can I shower?

It is advised to keep your dressings clean and dry. You can put a plastic bag over your dressings to keep them dry while showering. You will be advised when you can shower your flap during your discharge from hospital/at your clinic appointments.

Can I have a sick note for my employer?

If you require a sick note, please ask for this while you are in hospital. Please contact your GP for any sick notes required after your discharge from hospital.

QR Code

To find this leaflet on our webpage you can scan this QR code with your phone.

Link to the webpage:

<https://www.leedsth.nhs.uk/patients-visitors/patient-and-visitor-information/patient-information-leaflets/trauma>





What did you think of your care?

Scan the QR code or visit bit.ly/nhsleedsfft

Your views matter



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