Vascular Surgery

Leg Amputation

Introduction

This is an information resource for patients about leg amputation. It does not cover smaller procedures such as toe amputations.

When treatment to improve circulation, stop infection, control pain and heal ulcers in the leg or foot is unsuccessful then an amputation may be required to prevent dangerous infection and continuing pain. Severe injury to the leg and tumours in the leg are other reasons for carrying out an amputation. The condition of your leg and foot has led to the decision to carry out an amputation. The reasons for this will have been discussed with you.

This information is intended to answer common questions about the operation and to help you prepare for the procedure. The staff looking after you will also talk to you and answer questions. Talking is an important part of preparing for this procedure. This information is not a substitute for that.

What type of amputation will I have?

The main sites of amputation are:

- Below the Knee
- Above the Knee
- Less commonly, through the knee.

The condition of the tissues below the knee, site of any infection, and the amount of blood supply are the key factors in determining if a below knee amputation is possible. This is the preferred level for an amputation because walking and standing with an artificial limb is easier at this level. However, many people do well after a thigh amputation.

What preparation is there before the operation?

Firstly, coming to terms with and adjusting to the idea of an amputation is always difficult. There will be ward staff and specialists able to talk to you, your family and carers to answer questions and explain things to you. A physiotherapist who helps patients recover after an amputation will visit you before the procedure whenever possible. The ward discharge co-ordinator will also start planning with you what you will need when you leave the hospital at this early stage before the procedure, since there can be a lot to organise.

If you’re having a planned amputation, you might find it reassuring to talk to someone who’s had a similar type of amputation. A member of the team may be able to put you in touch with someone.
Medically there will be some tests to prepare you for the anaesthetic; blood tests, heart trace (ECG), chest x-ray. If you are diabetic your glucose levels will be checked to make sure they are good and your treatment adjusted if required. Diabetic specialists will advise on this. The ward nursing staff will assess your needs, such as diet and nutrition, avoiding pressure sores and avoiding falls.

The anaesthetist will visit you and explain about the anaesthetic. A general anaesthetic or a regional anaesthetic (spinal / epidural) are possible for this procedure and will be discussed with you. Plans will also be made for pain control before and after the procedure. The anaesthetist or a member of the hospital pain team will explain the options to you.

The surgical team will explain the procedure, complete the consent process with you and mark the leg with a pen.

**What does the procedure involve?**

The anaesthetic will either be a general anaesthetic where you are “put to sleep” or a spinal / epidural anaesthetic with a tube inserted into your back through which pain killers are given to numb the lower half of your body whilst you remain awake. The anaesthetist may also combine an epidural with a general anaesthetic to provide pain relief after your surgery.

A catheter (tube) will be inserted into your bladder to drain your urine. Smaller plastic tubes are put into a vein in your arm or neck (or both) for blood pressure measurements and to give you fluids following surgery. It is routine to be given antibiotics via a drip to prevent infection.

The amputation wound will usually be closed with stitches under the skin that dissolves by itself. Sometimes clips or external sutures are needed which are removed later. A small tube to drain any fluid that builds up after the operation is also inserted in the wound. The wound is covered with a dressing and then bandaged. Occasionally a plaster is used over the stump.

**What happens after the operation?**

You will usually return to the ward once you have recovered from the anaesthetic. It is possible you will need some close observation immediately after the operation and spend a short period of time on a different ward for this (High Dependency Unit / Intensive Care)

You will be given fluids by a drip in one of your veins until you are well enough to sit up and take fluids and food by mouth. The nurses and doctors will try and keep you free of pain by giving pain killers by injection, via a tube in your back, or by a machine that you are able to control yourself by pressing a button.

It is quite common to experience pain that feels as though it is in part of the leg that has been removed (phantom limb pain) and this can be helped with medication. It is possible you may require a blood transfusion.
As you recover, the various tubes will be removed and you will become gradually more mobile. You will be visited by the physiotherapist who will help you with your breathing (to prevent you developing a chest infection) and with your mobility. You will be taught how to transfer safely between a wheelchair and a bed, toilet and chair. When appropriate, rehabilitation will continue in the physiotherapy gym. A wheelchair will be loaned to you to increase your independence on the ward and a referral made to wheelchair services. Even if you are planning to walk, you may still need a wheelchair temporarily or for long trips.

The physiotherapists will teach you an exercise programme that you should continue at home. This aims to increase the range of movement and strength in your hip and knee. This is important for using a prosthetic limb.

As your wound heals, the physiotherapist will start you walking with help, on a temporary artificial limb in the gym, providing it is safe for you to wear one. Hopping on one leg is discouraged due to the stress on the remaining leg and the risk of falling. Occasionally crutches will be provided. This tends to be for younger patients whose amputation was due to an accident rather than diabetes or poor circulation.

You will also be visited by an occupational therapist who will help with planning your rehabilitation needs.

**Are there any complications?**

Wound healing can sometimes be slow. The wound can become infected and if so, will require treatment with antibiotics. Swelling of the stump is normal and a compression garment is used to try and reduce this over time. Aches and twinges in the wound are common and may continue for several months. If the wound does not heal then it may be necessary to perform another amputation higher up the leg, but this is not common.

Chest infections can occur following this type of surgery and may require treatment with antibiotics and physiotherapy. Vein clots can occur (DVT/PE) and injections to thin the blood a little are given to reduce the risk of this.

As with any operation there is a small risk of a heart attack or stroke or even of dying.

**Will I get a prosthetic limb?**

After amputation you will be referred to the rehabilitation team in the limb-fitting centre, who will assess your suitability for an artificial limb. This is a joint decision between yourself, physiotherapist, prosthetists, nurse and your consultant. In some circumstances a trial with an early walking aid in physiotherapy will be given before the final decision is made. Factors that may affect the decision include:

- Previous level of mobility
- Strength and condition of remaining leg
- General health (especially heart and breathing)
- Ability to transfer and mobilise with a wheelchair independently
How will I manage at home?

Some alterations may be necessary at your home before you are discharged and in some cases it may be necessary for you to move into different accommodation. Once you have left hospital, if you require ongoing rehabilitation there are a number of options. You can have further physiotherapy at Addenbrooke’s or be referred to your local hospital for an outpatient appointment there. You can also see physiotherapists in the community who will visit you at home. The district nurse will visit you and also check your wound.

- **Driving**: might be possible with an amputation, either with an automatic car, or with some special modifications.
- **Bathing**: once your wound is dry you may bathe or shower, but you will probably need help at first. You may also need handles or a hoist to get in and out of the bath safely.

What can I do to help myself?

If you were previously a smoker, you should try and stop as this may damage the circulation in your remaining leg. The hospital staff and your GP practice can all help you with this. It is also important that you do not put on weight, as this will make mobilising with a wheelchair or artificial leg more difficult.

Take good care of your remaining foot. Take advice and care from a podiatrist. Keep it clean and protected from injury by wearing a well-fitting shoe. The orthotist can provide special footwear if required.

If you are diabetic follow the instructions you are given to control your glucose level.

Further information can be obtained from:

NHS Choices website: [http://www.nhs.uk/conditions/amputation/Pages/Introduction.aspx](http://www.nhs.uk/conditions/amputation/Pages/Introduction.aspx)

Useful Contacts

- Addenbrookes switchboard 01223 245151
- Vascular Ward L5 01223 58517
- Rehabilitation clinic 01223 217859
- Clinical Specialist physiotherapist 01223 217856
We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.
For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.
Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

Document history

Authors
Consultant Surgeon
Pharmacist
Lead Pharmacist Surgery
Department
Cambridge University Hospitals NHS Foundation Trust, Hills Road, Cambridge, CB2 0QQ
www.cuh.org.uk
Contact number
01223 245151
Publish/Review date
May 2017/May 2020
File name
Leg-amputation_v1
Version number/Ref
1/100311