

Lower limb amputation

Vascular Surgery Patient Information Leaflet

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www.circulationfoundation.org.uk

Introduction

This leaflet tells you about the operation known as lower limb amputation. It is generally an operation performed on an URGENT basis in order to prevent the spread of infection and dead flesh any further from where it is already established in your leg.

Why is my surgery in Dudley?

Vascular services in the Black Country are centralised in the Black Country Vascular Hub, located at The Dudley Group NHS Foundation Trust (Russells Hall Hospital). This surgery is not performed at other Black Country Hospitals. Vascular surgeons based at New Cross and Walsall Manor perform their surgery in Dudley, working alongside our Dudley-based surgeons.

Why does the dead and infected flesh develop?

Patients requiring an amputation often have very severe blockages of the arteries in the leg, which means that it is no longer possible to supply life-preserving oxygen and nutrients to the areas at the ends of your lower limbs. Without a good blood supply, it is not possible to fight infection and the tissues die. Sometimes, in patients with diabetes, severe infection in the foot may develop even in the face of a relatively normal blood supply.

The disease which has caused the blockage in the first place is similar to the process by which arteries in the heart and brain become blocked, causing heart attacks and strokes respectively.

Why do I need the operation?

Unfortunately, in some patients it is not possible to correct the blood supply problems to your legs, and if left alone, more of your leg will become affected which could result in infection or dying tissue to spread further up your leg. There is also a chance of infection spreading to your blood stream, which could make you very sick and pose a risk to your life.

The amputation is needed to contain the existing problem and prevent it from spreading.

What is a leg amputation?

An amputation of the leg is the removal of the diseased part of the leg. The amputation stump is brought together with stiches to provide a healthy padded area over the end of the bone.

Amputation is always a last resort, and will only be recommended if your surgeon has decided it is not possible to improve the circulation in any other way.

The main sites of amputation are:

- Just below the knee
- Through the knee
- Through the thigh

The site of amputation will depend on how poor the blood supply to your leg is. If possible, below knee amputations are performed, as it is easier to walk with an artificial limb after the operation than if you have an amputation at a higher level.

However, it is possible for some patients to use an artificial limb after a through or above knee amputation after a period of rehabilitation and assessment. Not everyone who has an amputation goes on to use an artificial limb. Some people may find that walking with an artificial limb is very tiring and they choose to get about using the wheelchair instead. You should never compare yourself to anyone else, everyone is an individual and gets treated as such.

How will this operation help?

By removing the infected and dying parts of your leg, we hope to prevent any further spread of this and to preserve as much of your leg as possible.

Are there alternatives?

Other options to manage the poor blood supply would include drugs, such as blood-thinners and cholesterol-lowering tablets and other operations such as bypass grafting and angioplasty (the opening up of an artery with a balloon). However, if these were felt to be of benefit and prevent the need for an amputation, these would have been considered and discussed with you by your vascular team, or you may already have had these operations.

Is the treatment safe?

This is a major operation. The risk to you as an individual will depend on:

- Your age
- Your general fitness
- Whether you have any medical problems (especially heart disease)

As with any major operation such as this, there is a risk of you having medical complications, such as:

- Death (one in 20)
- Heart attack (one in 20)
- Chest problems, including infection
- Deep vein thrombosis (blood clots in the leg veins)
- Stroke
- Kidney failure (one in 40)

These risks illustrate that having an amputation operation carries some significant risks that you and your family should be aware of.

A major complication can be life changing, and these occur in one to two in ten patients. You can discuss these risks in more detail with your surgeon and anaesthetist.

The doctors and nurses will try to prevent these complications and deal with them rapidly if they occur.

The important complications that you should have discussed with your consultant are:

- Wound infection. Wounds sometimes become infected and this may need treatment with antibiotics. Sometimes, the amputation needs to be revised to a higher level if the blood supply is not sufficient for the wound to heal or if you develop a wound infection.
- Bleeding. This may require a return to theatre (uncommon).
- Heart complications. Major surgery stresses the heart and this can sometimes cause heart attacks, abnormal heart rhythms or heart failure.
- Chest infections can occur following this type of surgery, particularly in smokers and may require treatment with antibiotics and physiotherapy.
- Phantom limb sensation and pain. Phantom limb sensation may lead you to believe that your amputated limb is still present after the surgery and may put you at risk of falls as a result. Phantom limb pain is pain in the amputated leg after the operation and may require input from multiple experts afterwards to manage the problem in the long-term.

Before your operation

Your surgeon will ask you to sign a consent form. They will explain what the procedure involves, the risk and the benefits.

If you are not already in hospital, you will be asked to attend a pre-admission clinic before your operation in order to allow time for the tests required to make sure you are fit for the operation. These will include blood tests and an electrocardiogram (heart tracing).

The preoperative assessment team will assess your medical history, arrange any additional tests that are necessary and provide you with information about having an anaesthetic. Sometimes, you may need to see one of our consultant anaesthetists before the day of your surgery.

We will review your regular medicines when you come to hospital for your pre-admission appointment.

If you are taking any medicines that thin the blood (such as warfarin), then you may need to stop them temporarily before the procedure. You do not need to stop aspirin. You will be given full information on any changes that you need to make to your medicines at the pre-admission clinic – please ask us if you have any questions.

If you are already in hospital, the anaesthetist will come and see you on the ward.

What can I do to help myself?

It is important to prepare yourself well for the operation. There is a lot that you can do to improve your fitness.

Smoking

If you smoke, you must try hard to give up before your operation. The longer you can give up for, the better.

Continued smoking will cause further damage to your arteries and you are more likely to have complications from your operation, in particular wound infection. Your vascular specialist nurse or GP practice nurse can advise you about these.

High blood pressure

High blood pressure is a known risk factor for vascular disease. It is very important that you have your blood pressure checked regularly, at least every six months. If you have been prescribed medications for high blood pressure, you must make sure that you take it according to the instructions given.

Diabetes

If you have diabetes, it is important that your blood sugar levels are well controlled.

High blood cholesterol levels (fatty substance in your blood)

You should eat a healthy balanced diet and try to reduce any excess weight. It is important to reduce the level of cholesterol in your blood. Your vascular nurse can refer you to a dietician if needed. You may be prescribed medication to help lower your cholesterol level (e.g. a statin) and low-dose aspirin to help prevent blood clots from forming.

Foot care

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

Coming into hospital

If you are not already in hospital, you will usually be admitted on the day of surgery. Our vascular ward is ward B3. Please bring with you all the medications that you are currently taking. If you have any questions regarding the operation, please ask the doctors.

We will provide you with instructions on which of your drugs to stop and when, especially blood thinners and very important fasting plans. They are as follows:

- No solid food, fizzy drinks or fat containing drinks within six hours of surgery. Milk has fat and so can't be drunk in tea or coffee.
- Clear liquids, including tea or coffee WITHOUT milk can be drunk until two hours before surgery.

We ask that you avoid fasting for any longer than is necessary as it will increase your risk of feeling sick before and after surgery. You will be given a container of sweet drink called Preload™ to take two hours before surgery.

The anaesthetic

You will meet your anaesthetist who will discuss the anaesthetic with you on the morning of surgery. In the anaesthetic room, you will be given a general anaesthetic to put you to sleep. Alternatively, you may have a tube inserted into your back through which pain killers can be given to numb the lower half of your body whilst you remain awake (spinal or epidural). A needle will be inserted into a vein in your arm to administer the anaesthetic. There is sometimes a second needle placed into an artery in your wrist which allows us to measure your blood pressure accurately.

The type of pain relief you can expect after the surgery will also be explained by your anaesthetist. Usually, you will have simple pain killers such as paracetamol, with additional strong pain killers such as morphine, as required. We also routinely insert a nerve catheter into the stump. This is a very small tube that is attached to a pump that delivers numbing medication and further reduces pain. If you are an inpatient, the acute pain team will review you before the surgery.

When you arrive in the anaesthetics room, we will confirm your details including your identity, the operation and your consent.

The anaesthetic procedures we discussed with you will then be carried out.

To read more about anaesthetics, visit www.dgft.nhs.uk/anaesthetics or contact our surgical preassessment team (01384 456111 ext. 1849).

After the operation

How will I feel afterwards?

After spending some time in the recovery area of the theatre, you will return to the vascular ward (B3). In this specialist ward, there are more nurses to look after you to ensure you are safe and that any complications are recognised quickly. The nurses will give you pain killers and medicines to prevent sickness.

You will have a nerve catheter and pump delivering numbing medicine to the stump. The acute pain team will come and visit you daily and usually arrange for the catheter to be removed five days after surgery.

You will be able to eat and drink straight away after the surgery. We aim to remove drips and tubes as soon as possible.

As a safety measure, you will receive injections of a blood-thinning substance to prevent blood clots from forming. When sitting out in a chair, you will be encouraged to elevate your legs. When lying in bed or sitting out, it is advisable to continue leg and deep breathing exercises taught to you by the physiotherapist.

The wound is usually closed with stitches or clips that are removed ten to 14 days after the operation, or dissolvable buried sutures that do not need to be removed.

You can be discharged with the staples in place, and arrangements are made for their removal with either the district nurse or at your GP's surgery. You will be advised as necessary.

People react differently to the loss of a limb. If the history leading up to the amputation was a long period of pain, having the amputation may give a sense of relief that this is all over. However, for many people, having an amputation is very difficult to come to terms with and they may feel shocked, sad and even angry.

A period of bereavement is usually experienced and this is the normal reaction to loss, which may be experienced in many ways. It is normal to feel varied emotions after losing a limb, as adjusting to changes can be challenging. Talking about your feelings will be helpful and support from staff as well as family and friends is important.

A counselling service is available to enable you to talk about any difficulties you may be having. These difficulties may be of a delicate or personal nature and would be treated as all issues are, with sensitivity and complete confidence. The counsellor may also help support any of your close family/carers.

You will be visited by the physiotherapist after your operation, who will help you with your breathing (to prevent you developing a chest infection) and with your mobility. Initially, you will be shown exercises in bed and then you will be encouraged to transfer from your bed to a chair.

As your wound heals, the physiotherapist will start you walking (with help) on a temporary artificial limb, if it is felt to be safe for you to wear one. You will be taught how to use a wheelchair prior to further rehabilitation as an outpatient.

You will also be visited by an occupational therapist who will help you with your rehabilitation. Even if you are planning to walk, you will need a wheelchair in the initial postoperative period.

An appointment will be made for an assessment to see what your later mobility will be with the amputee rehabilitation team at your local amputee rehabilitation service.

Going home

You may require some equipment to be fitted in your home before you are discharged. In some cases, it may be necessary for you to move into different accommodation. Once you have left hospital, you will need to continue to attend the physiotherapy department amputee rehabilitation service for further assessment and rehabilitation.

If your stitches need removing and this has not been done in hospital, the district nurse will visit you and also check your wound.

Timing of discharge varies from patient to patient, depending on recovery from surgery and an individual's ability to move safely and independently in the wheelchair provided. If dissolvable stitches have been used, these do not need to be removed. If your stitches or clips are the types that need removing and this is not done whilst you are still in hospital, your GP practice or district nurse will remove them and check your wound.

You will feel tired for many weeks after the operation, but this should gradually improve as time goes by.

Driving

Driving after amputation can be discussed with the amputee rehabilitation team. You will need to contact the DVLA.

Bathing

Once your wound is dry and healed, you will be able to have a bath or shower as normal. However, you may need help and equipment to access the bath or the shower. This should be discussed with the amputee rehabilitation team.

What do I do if I feel unwell at home?

In general, call your GP or the out of hours doctors service. If you experience any pain or swelling, any shortness of breath or pains in your chest, you must seek medical attention.

Will I have to come back to hospital?

You will be provided with information about the members and location of the amputee rehabilitation team that will follow you up when you leave hospital. If you have any questions about this, you can contact the Maltings Mobility Centre on 01902 444041.

Finally

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure before you sign the consent form.

Useful web addresses

- www.dgft.nhs.uk
- www.nhs.uk
- [Circulation Foundation](#)
- [Vascular Society](#)
- [Driving Advice after amputation](#)

Further information

You will be provided with a booklet called 'Following Amputation' when you are in hospital after your surgery. This will give you and your carers further information about what to expect after amputation.

If you have any questions, or if there is anything you do not understand about this leaflet, please contact your Vascular Nurse Specialist or your consultant's secretary:

Russells Hall Hospital, Dudley on 01384 456111

Ward B3, Russells Hall Hospital on 01384 456111 ext. 2717

Walsall Manor Hospital on 01922 721172 ext. 6669/7763

New Cross Hospital, Wolverhampton on 01902 307999 ext. 5977 / 5971

This leaflet can be downloaded or printed from:

<http://dgft.nhs.uk/services-and-wards/vascular-service>

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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