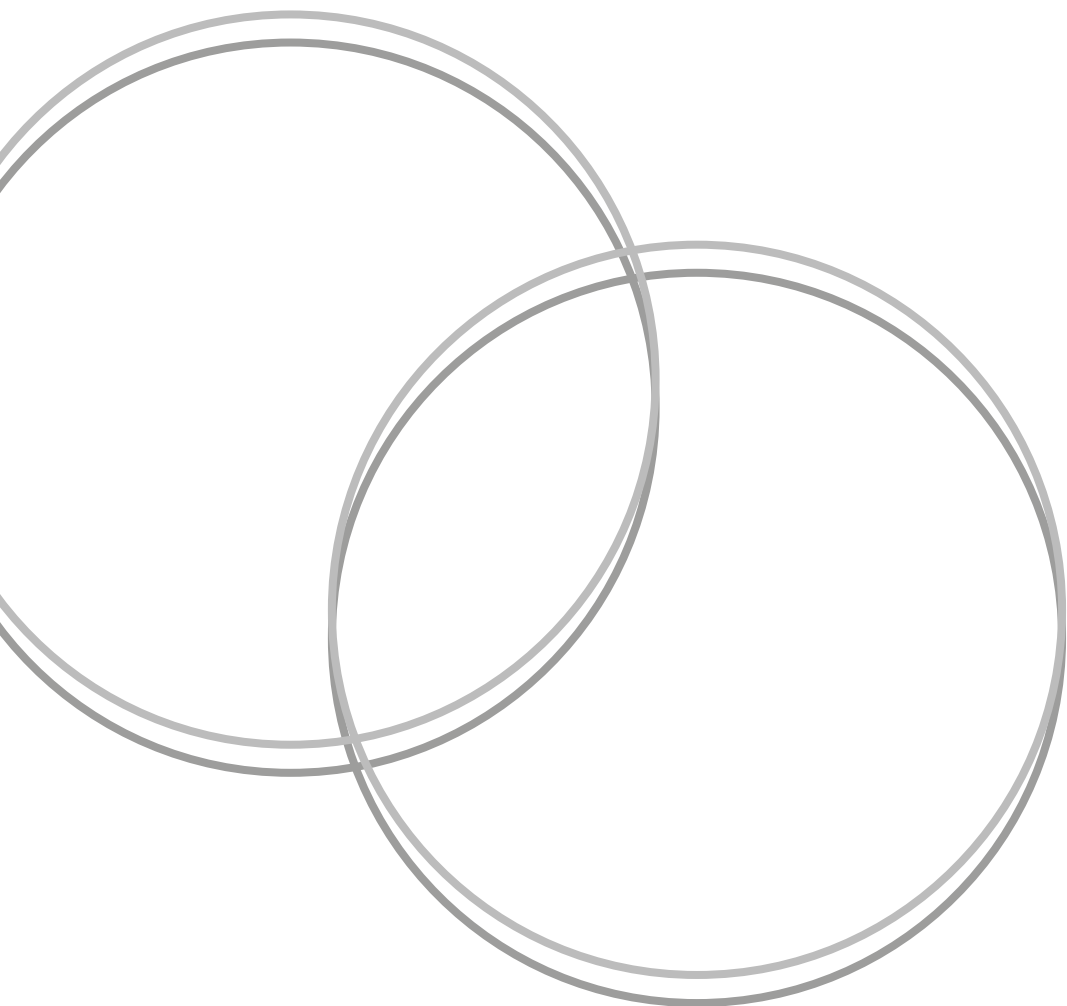




Oxford University Hospitals
NHS Foundation Trust

Lower limb amputation

Information for patients



This booklet gives you information about your amputation and what you can expect to happen following your surgery. We hope that it will answer many of your questions. Please ask a member of the team if you need any more information.

We are all here to help you.

Why do I need an amputation?

There are several reasons why an amputation may be necessary.

Critical limb ischaemia: This occurs when the blood supply to your lower limb is severely compromised due to the narrowing or blockage of blood vessels. If the blood flow cannot be restored, it may lead to pain, ulcers, and eventually gangrene of the limb. If left untreated, this condition can make you dangerously unwell, requiring urgent medical intervention.

Trauma: An amputation may be needed after a serious accident if your limb has sustained extensive damage that cannot be repaired.

Cancer: In some cases, amputation may be required if you are diagnosed with cancer affecting your limb.

What level will the amputation be?

Your consultant will discuss this with you. It is crucial that the amputation wound heals properly and allows you the best possible function after surgery. The amputation may be at different levels, including an above knee amputation (AKA), a through the knee amputation (TKA) or a below the knee amputation (BKA). Occasionally, if there are significant problems with healing or if extensive infection recurs, further surgery may be necessary. This can result in a BKA being converted to an AKA.

The amputated limb is often referred to as 'the stump' or 'residual limb.' If you are uncomfortable with any specific terminology, please discuss this with the medical team.

What if I do not want the amputation?

The decision to undergo an amputation is never an easy one. If you choose not to consent to the surgery, the medical team will respect your decision. However it is important that you understand your symptoms may not improve and could worsen. If your leg deteriorates further, you may become dangerously ill due to toxins being released into the body from dead tissues. Should you change your mind and decide to proceed with the amputation, please contact your GP or consultant promptly.

What are the risks?

Whilst all surgical procedures carry some risk, your individual circumstances will be carefully considered before any operation. An anaesthetist will assess your fitness for surgery and the medical team will discuss risks with you.

Chest infections: These can occur after surgery, particularly in those that smoke, and may require treatment with antibiotics and physiotherapy.

Wound infection: Wounds may become infected, necessitating treatment with antibiotics. Severe infections are rare, but occasionally incision may need to be cleaned out under anaesthetic.

Bowel problems: Sometimes the bowel is slow to start functioning again after the operation. This requires patience, and fluids will be provided via a drip until normal bowel function resumes.

Limb swelling: It is normal for the leg to swell following this operation. The swelling typically lasts for about 2 to 3 months and usually resolves completely, although, in some cases, it may persist indefinitely.

Skin sensation: You may experience patches of numbness around the wound which is due to the cutting of small nerves in the skin. This can be permanent in some cases, but usually improves within a few months.

Major medical complications: As with any major operation there is a small risk experiencing a serious medical complication, such as a heart attack, stroke, kidney failure, chest problems, or loss of circulation in the legs or bowel. The risks of these events will be assessed individually for each person, if you have concerns, please discuss them with your surgeon or another member of the team.

Who will be involved in my care?

There are many professionals who will work together to provide the care and support that you need both during your hospital stay and following discharge.

Doctors: Whilst you are on the ward, you will be under the care of a consultant surgeon, supported by a team of doctors. They will regularly monitor your recovery and manage any medical issues that you may have. After your are discharged, you are likely to see your consultant as an outpatient and your day to day medical care will be handed over to your GP.

Nurses: The nurses will take care of you from the day you are admitted until the day you leave the hospital. They will assist with personal care, wound care, and monitoring the condition of your skin. Nurses also serve as your primary link to other staff involved in your care.

Physiotherapist: The physiotherapists will help you regain strength and confidence after surgery. You will be provided with an exercise program to improve muscle strength and general fitness and they will help you practice tasks for home. They will also assist you in identifying suitable long-term activities to help you live as independently as possible. The physiotherapists will work closely with the occupational therapist to support you.

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Occupational Therapist: The occupational therapists will ensure that you can safely manage daily activities safely such as washing, dressing and preparing meals. They will arrange for your wheelchair and any equipment that you will need when you first return home. They may also visit your home to assist with discharge planning. If further adaptations are required after your discharge, community occupational therapists may be involved.

If possible, the team will meet you before the surgery to answer any questions you or your family might have. They can also discuss the typical pathways and what your discharge plan may entail.

Discharge Co-ordinator / Social Worker: The ward discharge co-ordinator will assist in arranging any short-term care, transport or other support needed for your discharge. The social services team will organise long term carers if required, they can also support with housing issues and benefits advice.

You may also meet the pharmacist, dietician, and other specialist teams who can give advice on aspects of your care.

What to expect after surgery

Immediately after your operation you will be transferred to the recovery room where you will be closely monitored until you are awake enough to be moved to the ward. It is normal to feel sleepy and disorientated as a result of the anaesthetic. You will continue to be monitored closely for the first few hours after your surgery. You may have an oxygen mask over your mouth and nose, to assist your recovery from the anaesthetic. Additionally, you might have some lines or tubes attached to you. The common attachments after surgery are:

A drip in your arm: This is used to administer fluids and medications.

Pain relief: This may be provided in various ways, such as patient-controlled analgesia (PCA) through a line in your arm or hand, a thin epidural line in your back, or a nerve infusion into the operated limb.

A catheter: A tube inserted into your bladder to drain urine into a bag. This is typically removed once you are able to move more freely.

A small drainage tube from your amputated limb: This is usually removed after 1 to 2 days.

Wound dressings: These will be applied to your surgical site.

Emotions

Amputation is a life changing event, and it will take time for you to adjust both physically and emotionally. Your emotional recovery is just as important as your physical recovery, so please share any concerns you may have so that we can support you.

You may feel relieved that the source of your pain is gone, especially if you have had a long period of illness leading up to the amputation. Alternatively, if your surgery was the result of a sudden injury or illness with little time to prepare, you may initially feel shocked or numb.

It is normal to experience feelings of loss and grief at some stage following amputation. Other common emotions may include fear, anxiety, anger, denial and/or depression. These are all natural responses. For most people, these feelings will gradually fade as you recover and adjust to life after the amputation and begin to make plans for the future.

If you continue to have difficulties, you may benefit from additional support. It is important not to ignore these feelings. It is important that you speak to a member of staff or your GP who can help you determine what assistance you may need.

Pain control

It is normal to experience some pain or discomfort around the wound site in the early post-operative stage. This discomfort will gradually improve as the healing progresses. You will be provided with painkillers to help keep you comfortable. It is important that you let the medical team know if you are in pain, as effective pain control will enable you to move more freely and allow you participate fully in your rehabilitation.

Phantom limb sensation

Immediately after surgery, it may feel as if the amputated limb is still there. Each person's experience is different. Some may feel these phantom sensations in the whole leg, while others only feel them in a specific part, such as one toe. You may also sense that the leg is in an unusual position or that it feels the same length and weight as your remaining leg.

This sensation is extremely common and occurs because the brain continues sending signals to the part that is no longer there. The brain retains a memory of the amputated limb, which may fade over time. During the first few months after your surgery, it is easy to forget that your limb is no longer there, particularly at night when getting up to use the toilet and after sitting for long periods. Be cautious during this period as people have been known to fall when attempting to use the absent leg. Phantom sensations can be very strong, making it is easy to forget that you have had an amputation.

Phantom limb pain

For some people, the phantom limb sensations can be painful. The pain can be a tingling, burning, itching, or cramping sensation or it might feel like a sharp, shooting pain. The exact cause of phantom pain is only beginning to feel more understood. It can be triggered by various factors, which will differ from person to person. Triggers may include swelling, muscle spasms, temperature changes, emotional triggers, changes in weather, or sometimes for no obvious reason.

If phantom limb pain is causing you difficulties, it is important to discuss this with a member of the medical team. There are specific types of pain medication that can help, or your current dose may need to be adjusted. You may also be seen by a member of the pain management team who can offer additional advice.

For most people this issue resolves over time.

What happens during my rehabilitation in hospital?

When will I start getting out of bed?

The timing of when you can start getting out of bed will depend on how well you have recovered following your surgery and how well your pain is managed. Typically, this happens within the first day or two after your operation. The physiotherapist will visit you and begin with some simple exercises. These exercises are crucial for maintaining movement and strength in your limbs and preventing joint stiffness. If you can tolerate these exercises well, they will progress to practicing movements on the bed will and aim to teach you how to move safely from the bed to a wheelchair. It is advisable to wear something comfortable and easy to move around in, such as loose trousers or shorts and a T-shirt.

The therapists will discuss your goals and what you need to achieve in order to return home. You will follow an exercise programme to improve your balance, strength, and practice the skills necessary for independence and safety at home.

Will I need a wheelchair?

The occupational therapist will provide a wheelchair and special pressure relieving cushion for you to use whilst in hospital. They will also refer to the local wheelchair service for them to provide you with your own for long-term use. A wheelchair is the safest means of getting about, particularly in the early stages when you need support to protect the remaining part of your leg and the wound whilst it heals.

Using crutches or a frame to hop on your remaining leg is not advised, as this can cause damage to your leg and significantly increases the risk of an accident.

Looking after your residual limb (or stump)

Any swelling of your residual limb can delay the healing process and increase pain and stiffness. You can aid your recovery by resting your leg fully supported on the bed or chair. Avoid placing pillows under your stump, as this can lead to long term stiffness and pain in your joints. Additionally, refrain from hanging your stump over the edge of the bed or wheelchair. If needed, you will be provided with a support board for the edge of the wheelchair. This will help reduce swelling and protect your stump from accidental knocks.

You may be given a compression sock to help further reduce swelling. Your physiotherapist will discuss this with you and the rest of the team.

When in bed, rest with your legs straight. Do not place pillows under the thigh or knee as this can cause your hip or knee to become fixed in a bent position. A stiff joint is often painful, and it will make your rehabilitation more challenging.

Will I get a prosthesis (artificial leg)

Deciding whether to use a prosthesis is not always straightforward, and; the therapists will discuss your individual circumstances with you and your family. While some people adapt very well to using a prosthesis, this will depend on factors such as your previous level of fitness, the level of your amputation and any other medical conditions you may have.

It is important to understand that using a prosthesis requires a significant amount of energy. Some people find that they have a better quality of life using a wheelchair, where they feel safer and have more energy to engage in everyday tasks.

If it is determined that you are likely to manage with a prosthesis, we will refer you to a specialist team based at the Oxford Centre for Enablement for further assessment. You will normally receive an outpatient appointment approximately six weeks after your surgery.

Planning your discharge home

How long am I likely to stay in hospital?

Everyone recovers at a different pace, and it is difficult to predict the length of your hospital stay before your surgery. If you are able to be discharged directly home, you will typically stay in hospital for between 14 to 21 days, provided you can complete the necessary tasks to manage safely at home.

If you live further away, such as Berkshire or Buckinghamshire, you may need to be referred to your local hospital. This is primarily to ensure that your discharge can be planned and managed more effectively by the local teams.

If you require more rehabilitation, you may be referred to a community hospital, where you will continue to practice tasks, build strength and continue to prepare for home. We will aim to place you in the community hospital closest to your home, but, we cannot guarantee this. It is strongly recommend that you accept the first bed available, as it may be possible to move closer to home if a bed becomes available later.

If you need additional therapy once you are home, this can be discussed, and arrangements can be made for your continued care. The hospital team can refer you to other services for support, but please be aware that they cannot provide accurate estimates on how long this process may take.

Preparing to go home

The entire team will work closely with you as you recover from your operation and prepare for your discharge from the hospital. Our goal is to ensure you have the right information and support throughout your recovery. If you or your family have any concerns about your care or discharge plans, please do speak to a member of the team.

The therapy team will discuss your home situation in detail with you and your family. This will help to plan how you can best manage at home and to teach you the keys skills necessary to ensure your safety.

The occupational therapist may request to visit your home, a process known as an 'access visit.' This visit allows the team to take specific measurements and check that your wheelchair can manoeuvre around your home. It also helps to identify any equipment or adaptations you may need. It is important to understand that our primary focus is on getting you home safely. While we can provide some small essential equipment items for discharge, larger adaptations may need to be arranged at a later date.

The nursing staff will provide advice and guidance on how to care for after your wound once you are at home, your district nurse may also be involved if dressings are required.

Driving

It is a legal requirement for you to inform the DVLA and your insurance company about the change in your circumstances. Various conditions and medications that can impact your ability to drive. Your options for driving after amputation will depend upon on the type of car you drive. There are specialist vehicle centres across the country that can provide individual advice and assessment following your surgery.

Your safety

Falls are common after an amputation, as it becomes more challenging to maintain balance while moving. However, by following some simple guidelines, you can help prevent falls and injuries:

Take your time when moving: Rushing increases the likelihood of accidents.

Ensure wheelchair safety: When transferring in and out of your wheelchair, always apply the brakes and position yourself close enough to make the transfer safely.

Wear appropriate footwear: Choose a comfortable, well-fitting shoe with a non-slip sole for your remaining leg.

Be cautious of phantom limb sensation: It is easy to forget that your leg has been amputated, especially if you experience phantom limb sensation. Attempting to stand on a phantom limb is a common cause of falls, so be particularly careful when you first wake up or when moving from bed at night.

Keep your home environment safe: Ensure there is clear space for movement, good lighting, and remove potential hazards such as loose rugs, trailing cables, and clutter. Keep floors dry and be cautious on uneven or wet surfaces.

Keep essentials within reach: Place frequently used items within easy reach to avoid unnecessary stretching or bending.

Regular health check-ups: Visit your GP regularly to review medication, monitor blood pressure, and ensure your overall health.

Eye care: Have your eyes tested regularly and wear glasses as prescribed.

Stay active: Regular activity helps maintain muscle strength and balance, reducing the risk of falls.

Eat well and stay hydrated: A healthy, balanced diet and plenty of fluids, preferably water, are important for overall health and well-being.

Limit alcohol intake: Excessive alcohol can impair balance and judgment, increasing the risk of falls.

What should I do if I fall?

Before you go home, we will discuss an action plan in case you fall, and if possible, we will teach you how to safely get up from the floor.

If you do fall, follow these steps:

Recover from the initial shock: A fall can be frightening, so take a moment to calm yourself and assess if you are hurt before attempting to move or get up.

For carers: If you are caring for someone who has fallen, summon help and keep the person warm and comfortable. Do not attempt to lift them if they are unable to get up on their own.

Assess for injuries:

- If you are not hurt: Follow the action plan you have agreed upon with the healthcare team.
- If you are hurt: Try to stay calm and follow the steps below.

Shout for help: Call out for assistance or use a phone or pendant alarm if you have one. You can also bang on walls or the floor to attract attention. If you require emergency assistance, dial 999.

Stay warm: Use any clothing, rugs, or blankets within reach to keep yourself warm and comfortable while waiting for help to arrive.

Keep moving: If possible, change your position regularly to prevent pressure sores while you wait for assistance.

Whether or not you are injured, it is important to discuss the fall with your GP. They can investigate the cause of the fall and arrange for you to be seen by your local physiotherapy team or falls specialist if necessary.

Staying healthy

Pressure care: Preventing pressure damage is crucial as your skin can be very vulnerable. It can easily become red, develop blisters, or break open to form a wound. The areas at most risk are the buttocks, heels, and toes. Our staff will assess whether you need a special mattress and cushion to help prevent any pressure damage from forming.

You will be shown how to change position regularly in bed and how to adjust position in a chair to relieve any discomfort. Please inform the staff if you feel uncomfortable at any time.

If you had your amputation due to circulation problems, we strongly advise against hopping on the remaining limb, as this can put excessive pressure on the remaining foot.

Skin:

If you have circulation issues, your skin may become very dry. It is important to keep your skin moisturised as dry skin can crack, increasing the risk of infection.

Be careful to avoid knocking your leg or remaining limb. Always move your wheelchair footplates out of the way when getting in and out and ensure there is enough clear space when you are moving around.

Foot health:

Inspect your remaining foot daily. You can use a long-handled mirror or ask someone to assist you. If you notice any cuts, blisters, or inflamed areas, seek advice from your GP, nurse, or podiatrist.

Regularly check your footwear for rough edges or sharp areas. When purchasing new footwear, ensure they fit well, providing plenty of room for your toes. Make sure your socks or stockings are not too tight around your ankle or calf, and they do not leave marks on your skin. It is also advisable to seek guidance from a podiatrist on how best to cut your toenails. Never attempt to treat corns or calluses on your own.

Smoking:

If you were a smoker before your surgery, we strongly encourage you to make a sincere and determined effort to quit completely. Continuing to smoke can cause further damage to your arteries, and it increases the likelihood that your bypass will stop working.

Tobacco smoke contains over 4,000 active compounds, which negatively affect blood vessels in multiple ways. Nicotine causes blood vessels to narrow, reducing blood flow to the extremities, and raises both heart rate and blood pressure. Inhaled carbon monoxide from tobacco reduces the oxygen transported to your tissues.

We understand how challenging it can be to quit smoking, but when you are ready, you do not have to do it alone. Your GP and our clinical support teams are available to help and can guide you to the support you need.

Hypertension (high blood pressure):

High blood pressure is a significant risk factor in vascular disease and is associated with development of complications. If you have high blood pressure it is typically managed by your GP. They may suggest lifestyle changes, such as reducing your alcohol and salt intake, which can help to lower your blood pressure. Your doctor may have also prescribed medication to manage it. Please ensure that your blood pressure is monitored regularly to keep it under control.

Diabetes:

If you have diabetes, it is important that your blood sugar levels are well controlled. Uncontrolled blood sugars can contribute to poor wound healing and other complications.

Diet:

High levels of fat in the blood can lead to atherosclerosis, which narrows the arteries. Elevated cholesterol is a significant risk factor for developing vascular disease and intermittent claudication. If you are overweight, losing weight can be beneficial. However, maintaining a normal weight does not automatically mean that you are consuming a healthy diet or are providing your body with the right nutrients.

It is crucial that you are consuming enough energy (calories) and protein to support wound healing. You may need to increase your food intake to aid your recovery. Eating 'little and often' or fortifying your food with extra calories and protein can be helpful if you have a poor appetite. Oral nutritional supplement drinks may be necessary. Avoid weight loss diets until after your wounds have healed to ensure you are receiving sufficient energy and nutrients.

Protein is essential for building and repairing muscle, skin, and other body tissues. Good sources of protein include meat, poultry, fish, eggs, dairy products, legumes, pulses, nuts, and alternative proteins.

Micronutrients such as iron, zinc and vitamins A, C play a crucial role in and E also contribute to wound healing. A well-balanced diet from the five main food groups will help ensure you are getting all the nutrients you need.

If you are concerned about your nutrient intake, are underweight, or are losing weight, please speak to a member of the team for advice on nutrition support.

How to contact us

If you have any concerns when you are at home, speak to your GP or call NHS 111 for advice (dial 111 free from any landline or mobile).

If you develop sudden pain or numbness in your leg which does not get better within a few hours, contact your GP or Ward 6A at the John Radcliffe Hospital Immediately.

Ward 6A

Telephone: 01865 221 802 or 01865 221 804
(24 hours)

Physiotherapy

Telephone: 0300 304 7777 and ask for Bleep 1758
(8.00am until 4.00pm, Monday to Friday)

Occupational Therapy

Telephone: 0300 304 7777 and ask for Bleep 1583
(8.00am until 4.00pm, Monday to Friday)

Useful contacts

Here for Health – Health Improvement Advice Centre

Oxford University Hospital team for advice and support on healthy living. Including physical activity, diet, smoking, alcohol, and emotional wellbeing.

Telephone: 01865 221 429

(9.00am to 5.00pm, Monday to Friday)

Email: hereforhealth@ouh.nhs.uk

Website: www.ouh.nhs.uk/HereforHealth

Smokefree

For advice on giving up smoking, including how to find local support.

Telephone: 0300 123 1044

Website: www.nhs.uk/smokefree

British Red Cross

Help with independent living, transport, and mobility aids.

Telephone: 0344 871 11 11

Email: contactus@redcross.org.uk

Website: www.redcross.org.uk/get-help

DVLA

Advice about driving with medical conditions and applying for changes to license.

Telephone: 0300 790 6806

(8.00am to 7.00pm, Monday to Friday; 8.00am to 2.00pm Saturday)

Website: www.gov.uk/driving-medical-conditions

Circulation Foundation

Charity supporting those with vascular disease. Offer support and advice about a condition.

Email: info@circulationfoundation.org.uk

Website: www.circulationfoundation.org.uk

Limbless Association

National charity offering advice and support for people with limb loss and their families.

Telephone: 0800 644 0185

Website: www.limbless-association.org

BLESMA – The Limbless Veterans

Charity for limbless veterans – whether the limb loss is related to their service or not.

Telephone: 020 8590 11284

(9.00am to 5.00pm, Monday to Friday)

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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Oxford University Hospitals NHS Foundation Trust
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