

Patient information factsheet

Leg artery bypass (fem-pop bypass)

The femoral artery runs down from the groin and into the thigh. This artery delivers blood to your legs. When the femoral artery reaches the back of the knee it becomes the popliteal artery and runs into the smaller arteries which run below the calf and into the foot.

When there is a blockage in any of these arteries, the circulation of blood to your leg is reduced which may cause you to have pain in your calf when you walk. This is known as intermittent claudication.

In severe cases the blood supply can be reduced to such an extent that you experience pain all the time in the foot (rest pain). Equally, due to poor blood flow trivial injuries do not heal and form ulcers or toes turn black after minor knocks (tissue loss). In this situation surgery is needed to relieve symptoms and save the leg.

The surgery

An arterial bypass (also known as a fem-pop bypass) is an operation to create a new route for blood to get into the leg. The bypass is usually made using a piece of another blood vessel (a vein).

During the operation a number of small cuts are made on the leg. These allow the surgeon to expose the healthy artery above and below the blockage. The skin cuts also allow the vein in the leg to be removed such that it can be used as the bypass. The vein is plumbed into the healthy portions of artery and the blood can then travel into the foot.

Any decision on treatment will be carefully considered by your vascular multidisciplinary team and discussed in detail with you. Surgery should improve your symptoms and allow any wound or ulcer to heal.

What are the risks of treatment?

As with any operation there are risks involved which vary according to your health but typically include:

- **Fluid leak from wound (common):** Occasionally the wound may leak fluid. This may be clear but is usually blood stained. It normally settles in time, and does not usually indicate a problem with the bypass itself.
- **Limb swelling (common):** It is normal for the leg to swell after this operation. The swelling usually lasts for about two to three months. It normally goes almost completely, but may occasionally persist indefinitely.
- **Skin sensation (common):** You may have patches of numbness around the wound or lower down the leg which is due to the inevitable cutting of small nerves to the skin. This can be permanent, but usually gets better within a few months.
- **Wound infection (common):** Wounds sometimes become infected and this may need treatment with antibiotics. Occasionally, the incision may need to be cleaned out under anaesthetic.

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- **Bypass blockage (uncommon):** The main complication of this operation is blood clotting within the bypass causing it to block. If this occurs it will usually be necessary to perform another operation. The durability of a graft is improved by stopping smoking and exercising.
- **Limb loss (rare):** Very occasionally when the bypass blocks and the circulation cannot be restored, the circulation of the foot is so badly affected that amputation is required.
- **Risk to life (rare):** As with any major operation there is always a risk to life. This is usually extremely small but is partially dependent on your age, weight and general health.

We will be happy to discuss these risks with you, or answer any questions that you may have.

Are there any alternatives to this treatment?

Depending on the location of blockage it is sometimes possible to perform an angioplasty. This is where a wire is passed into the artery so it can be stretched and if needed a stent (small wire tube) placed. This may not be successful or may not be a suitable option.

If you don't receive any treatment, your symptoms will not improve and are likely to worsen. In some cases amputation is required if the blood supply to the leg is completely blocked.

Consent

We must seek your consent for any procedure or treatment before it can go ahead. Your medical team will explain the risks, benefits and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

Before your surgery

Preparing for your operation

Smoking is a major risk for arterial disease, increases the chances of getting a chest infection and slows your recovery. So if you're a smoker, you need to stop. The NHS Quitters service is available to help support you. You can contact them on 0300 123 3791 or visit www.solenthealthyliving.nhs.uk. You can also talk to your GP who can prescribe nicotine replacement for you. Exercise can boost your immune system and help your recovery so try gentle exercise, such as walking and cycling.

Thinking about your return home

Before your operation, it's a good idea to start thinking about how you will manage at home after your surgery. We encourage patients to stay with family or friends or to have a relative staying with them if possible. If you live alone or require additional support then we may need to help you make plans for a short period before you go home. The sooner we know this, the sooner we can start arranging something for you. Talk to your close family, friends and GP to see what options you have.

You will need to be collected from hospital on the day you are discharged so, before you come into hospital, you should arrange who will collect you. It's also worth asking someone to get you fresh food so you have something at home when you leave hospital.

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Pre-assessment

Before you are admitted for surgery you will be seen by a specialist nurse and an anaesthetist in clinic. We'll take a detailed medical history, as well as perform blood tests, a physical examination, blood pressure checks and a heart trace (ECG). The anaesthetist will talk to you about your anaesthetic and how your pain will be controlled.

You should bring in a list of the medications you take and when you take them. We'll let you know if you need to make any changes to your medication for your surgery.

You will also be asked to fill in a questionnaire for the therapy team to help identify if you may need any help or support after the operation. If you do then a member of the therapy team may contact you before you come into hospital. You will also be given information on local services which may be useful to you.

Coming into hospital

What to bring

When you come into hospital there are a few items that you should bring:

- All your medications (including insulins and inhalers)
- Nightwear and changes of clothes
- Toiletries
- Dentures, glasses and hearing aids if you have them

Bring them in a small bag labelled with your name. There isn't much storage space on the ward so it should only be a small bag.

We recommend that you leave valuable items at home; especially as you'll be asked to remove jewellery prior to surgery. The ward cannot accept responsibility for items left on the ward and not handed to the cashiers for safe keeping.

What to expect during your stay in hospital

Prior to surgery you will be assessed to ensure nothing has changed. You may need to have further blood tests.

On the day of surgery you will be taken to theatre where your details will be checked before you're taken to the anaesthetic room and then into surgery.

After theatre you will usually return to the ward. If you require observation you will be taken to the high dependency unit. Your anaesthetist will tell you if this is necessary.

You may have a number of special tubes initially which will be removed as you recover:

A drip – to give you fluids directly into a vein.

Wound drain – a tube into your leg so that any old blood (haematoma) can drain away. It is removed when the drainage has stopped.

Urinary catheter – a tube into your bladder to drain urine. The drainage is measured closely by the staff.

PCA – A PCA (patient controlled analgesia) is a special drip that goes through a pump to give you pain relief.

Your pulse, blood pressure, temperature, breathing rate and pulse will be monitored.

Pain

The wound in your leg is likely to be uncomfortable at first. You may have pain relief drips (PCA) for the first few days after surgery. Once you are eating and drinking, you will be able to take pain relieving medications by mouth. The pain will slowly improve, but you may get twinges and aches for between three to four weeks. It's important your pain is controlled so that you can move about.

Eating and drinking

Once you're awake you will be allowed to eat and drink. You may find you are not very hungry and don't feel like eating much. It's important to eat regularly to help your recovery.

Moving around

Moving around after surgery will help speed up your recovery and prevent complications.

The therapy team will see you the first day after your operation to teach you exercises to keep your joints and muscles supple. The exercises may be a bit uncomfortable to start but with practise they will get easier. They will also start to get you up and moving as quickly as possible. You may need a walking aid to begin with depending on how much weight you are able to stand through your leg. The therapy team will help you to progress and return to walking normally. The nursing staff will be able to help you practise this.

It is important to do deep breathing and coughing exercises (to prevent chest infections). The therapy team will give you advice and ward staff will give you any individual assistance you need to regain your normal mobility. Moving around will not cause any damage to the graft or to your wound. It is expected that you will sit out in a chair the day after surgery and then begin to walk a short distance the day after that.

You will be encouraged to maintain as much independence as possible with your personal care and toileting during your recovery.

Changes to medication

You will usually be started on Aspirin (or an alternative) if you are not already on one. This will help to stop the graft blocking and would usually be taken for life.

Your wound

There will be a dry dressing over your wound. Special dissolvable stitches are used to close the wound. Sometimes non-dissolving stitches are used which will need to be removed (usually 8-10 days after the operation); your nursing staff will inform you if this is the case. You will likely be back home by the time your stitches need to come out, so the ward will ask for them to be removed by your practice nurse at your GP surgery.

Following your surgery you may have some swelling and bruising. This is normal and will disappear within a couple of weeks. You may also notice that there are areas of numbness or oversensitive areas around the wound. This is also normal.

When you are resting, keep your legs up on a stool with your heels clear and your feet ideally higher than your knees. This is to help reduce the swelling in your leg after the operation.

The wound will appear to have healed within two weeks or so, but the underlying tissues can take several months to heal completely and you may find the scar and wound are lumpy and quite hard for several months

If your wound becomes red, sore or is oozing please let your GP know, as this could be a sign of an infection.

Frequently asked questions

How long will I have to stay in hospital?

You will usually be discharged three to four days after your surgery. Recovery times vary, and it can take several weeks to feel 'back to normal'. It also depends on your health and activity before surgery.

Can I shower/have a bath?

Once your wound is dry you will be able to bathe and shower as normal.

Can I exercise?

Exercising after your operation will help your recovery and help you to return to normal daily life more quickly. It's important to start slowly. Initially you should not lift heavy objects, or do any strenuous activities or sports.

Walking is an excellent form of exercise not only for your muscles but also for your heart and lungs. Take it easy at first. You will tire easily and will need to rest but do not stay in bed. Some days you will feel better than others. Go for short walks and build up over time with a gradual return to normal activity.

You will be able to manage light work around the house, in the garden and at work when you feel fit and able. Excessive activity will cause pain rather than actual damage. Don't try to do too much, too quickly.

When can I return to work?

Most people are able to go back to work after six weeks. If you need further time off, talk to your GP.

Can I drive after the operation?

You can start driving again when you are able to do an emergency stop. You can practice doing this in the car without the engine on. If you drive a manual car you need to be able to lift both legs at the same time to push down on the brake and clutch, quickly and forcefully. If this causes you pain, then you're not ready to drive yet. Sometimes this can take four weeks. If in doubt, you should check with your GP and insurance company.

Can I fly?

There are no reasons why you should not travel by air after treatment. There are no cases that we know of where this has been harmful.

Storing your personal information

Vascular surgeons record information about surgical interventions, on the National Vascular Database (NVD). This is a secure database that is used to help monitor and improve vascular services throughout the country. Strict data governance and confidentiality rules mean that personal details on the NVD can only be accessed by staff directly involved in your treatment. If you have any questions or concerns regarding this please speak to your surgeon.

Who should I contact if I have any queries?

If you need any further information about your surgery or anything covered in the booklet, you can contact the vascular nurse specialists between 9am and 5pm, Monday to Friday on **023 8120 6039**. This number has an answerphone.

Information about general health conditions can be found at www.nhs.uk

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This information is intended as a guide only. Everyone is different and treatment and recovery may vary from one person to the next.

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If you need a translation of this document, an interpreter or a version in large print, Braille or on audiotape, please telephone 023 8120 4688 for help.