Patient information

Femoro-popliteal and Femoro-distal Bypass Surgery

Vascular Department

Your Consultant /Doctor has advised you to have Femoro-Popliteal or Femoro-distal bypass surgery

What is Femoro-Popliteal or Femoro-distal bypass surgery?

A bypass operation places a new artery around a blocked artery to restore the circulation and relieve symptoms.

Femoro-popliteal bypass surgery bypasses a blocked femoral artery in the thigh by placing a bypass graft from the femoral artery in the groin to the popliteal artery behind the knee. The bypass can be above the knee or below the knee. Bypass operations that go from the femoral artery to below the knee are called femoro-distal.

The bypass material is usually a piece of your own vein such as the great saphenous vein (GSV) from the same leg. These superficial, skin veins can also be used for a heart bypass and are the same veins that frequently turn varicose.

If the vein is missing or unsuitable due to its size (too small, too big or too short a length) it may be necessary to find vein from another place such as the opposite leg or even veins from the arm. Less commonly a prosthetic (artificial) bypass graft can be used but these have a much lower chance of long-term success.

The presence of an arterial ulcer or gangrene (dead tissue) of the toes or foot may lead to additional surgery such as debridement (surgical removal) or amputation of toes at the same time as the bypass or at a later date.

What are the benefits of having Femoro-Popliteal or Femoro-distal bypass surgery?

If the leg arteries, become blocked by atheroma (hardening of the arteries) or thrombosis (blood clot) the blood supply to the leg, foot and toes may be severely affected. The early symptoms may be of walking pain in the legs, almost always in the calf – this is called intermittent claudication.

If the ischaemia (lack of blood) is severe the pain may become more persistent and severe especially at night; the pain can affect the leg, foot and toes. If this has been present for longer than two weeks this is called critical limb ischaemia.

Other symptoms of critical limb ischaemia include arterial ulcer and gangrene. Critical limb ischaemia means that the leg is threatened leading to a risk of amputation.

The aim of the operation is to restore the blood supply in the legs and feet to relieve pain, allow healing of ulcers and areas that have become damaged by gangrene and remove the immediate risk of lower limb amputation.

What are the risks?

Common risks (greater than 1 in 10) include bruising and possible bleeding from the wound.

Occasional risks (between 1 in 10 and 1 in 100) include embolism (moving debris or blood clot) from the leg arteries to a site further down the leg, foot or toes.

Thrombosis (blood clot) of the bypass graft may lead to lack of blood supply to the legs, foot and toes. Additional procedures may be needed to avoid loss of a limb.

As with any operation, you may develop a chest infection. This is more likely if you smoke. It may need treatment with antibiotics and physiotherapy.

Occasionally, a collection of blood forms under the wound. This is called a haematoma. If this is small it may disperse by itself, but larger haematomas will need to be evacuated in a second operation.

There may be more serious internal bleeding from the bypass graft itself requiring further surgery.

Collections of lymphatic fluid may also occur around the arteries and the bypass graft. These may need to be drained with a needle and may persist in some patients.

Infection of the wound is a small risk (1 in 100) – infection of a prosthetic bypass graft is less common than this but is a serious complication.

A heart attack or disturbance of heart rhythm may also occur in 1 in 100 patients. This may lead to medical treatment especially if the heart is weakened (heart failure).

Less common, rare risks (less than 1 in 100) include superficial nerve injury to the leg causing an area of permanent numbness or weakness/paralysis of the leg.

Swelling of a leg may occur with the possibility of deep vein thrombosis or pulmonary embolism.

Risks of stroke, transient ischaemic attack (stroke symptoms lasting less than 24 hours) and kidney failure requiring dialysis are small risks but may be fatal.

General anaesthesia is the norm for the operation but it can also be undertaken with a spinal anaesthetic.

Are there any alternatives available?

Blocked arteries may also be reopened with a keyhole X-ray procedure called angioplasty using a balloon to reopen or widen the arteries. In some cases a metal stent is inserted into the artery to keep it open. This has fewer risks and complications than open surgery but is more difficult lower down the leg and also less effective as time goes by. Unfortunately not every case is suitable for this keyhole technique.

What happens if I decide not to have treatment?

If you have a walking disability you may be suitable for balloon angioplasty or conservative treatment with exercise therapy. If you have critical limb ischaemia it may be suitable to reopen the circulation with angioplasty but the consequences of not having the treatment will increase your risk of major amputation of a leg.

What sort of anaesthetic will be given to me?

You will be given a general anaesthetic. General anaesthesia is drug-induced unconsciousness: it is always provided by an anaesthetist, who is a doctor with specialist training.

Unfortunately, general anaesthesia can cause side effects and complications. Side effects are common, but are usually short-lived: they include nausea, confusion and pain.

Complications are very rare, but can cause lasting injury: they include awareness, paralysis and death.

There is a risk of damage to teeth, particularly caps or crowns and veneers. Your anaesthetist will take every care, but occasionally damage can occur.

The risks of anaesthesia and surgery are lower for those who are undergoing minor surgery, and who are young, fit, active and well.

For more information, please ask for a copy of the leaflet **“You and Your Anaesthetic”** (PIF 344).

You will be given an opportunity to discuss anaesthetic options and risks with your anaesthetist before your surgery.

If you are worried about any of these risks, please speak to your Consultant or a member of their team.

Getting ready for your operation

- You will usually be seen in the pre-operative clinic before you are admitted to hospital. Here you will have blood tests, and sometimes a heart trace or a chest X-ray. You will be assessed to see if you are fit for the anaesthetic.

- The staff will ask routine questions about your health, the medicine you take at the moment and any allergies you may have.

- You will be given instructions on eating and drinking before your operation.

- You will be able to discuss the operation with a doctor. You will be asked to sign a consent form to say that you understand the procedure, and what the operation involves.

- If you smoke, you should stop completely. The risks of stroke are greatly increased in smokers and there are additional risks of heart attack and lung disease with surgery. Advice and help is available via your physician, family doctor (GP) and through NHS 111.

The day of your operation

- You will come into hospital on the day of your operation. Please make sure you contact the ward before you leave home to check bed availability.

- Please leave all cash and valuables at home. If you need to bring valuables into hospital, these can be sent to General Office for safekeeping. General Office is open between 8.30 and 4.30 Monday to Friday. Therefore, if you are discharged outside these times we will not be able to return your property until General Office is open. The Trust does not accept responsibility for items not handed in for safekeeping.

- Please bring any medication you take into hospital with you.

- Please bring in toiletries, nightwear and towels.

- You will be asked to remove jewellery - plain band rings can be worn but they will be taped.

- Please leave body piercings at home. False nails and nail polish will also need to be removed if worn.

- If you are on regular medication, you will be told to take this if necessary.

- You will be asked to put on a gown and disposable underwear.

- A bracelet with your personal details will be attached to your wrist.

- You may be prescribed some medication to take before your operation by the anaesthetist. A member of the nursing staff will give this to you.

- A nurse and porters will take you to the operating theatre.

- Your dentures, glasses or hearing aid can stay with you on your journey to the operating theatre.

- When you arrive in the theatre area, the ward nurse will leave you, and you will be asked to put on a disposable hat.

- You will then be taken to the anaesthetic room and a member of theatre staff will check your details with you.

What should I expect after my operation?

- After your operation you will be kept in the theatre recovery room before being transferred to the enhanced recovery unit or the vascular ward.

- A nurse will check your pulse, blood pressure, breathing rate and urine output regularly. We will also carefully monitor your wound for any bleeding or swelling.

- The colour, temperature and pulses in the limbs will be checked regularly after the operation.

- **It is important that if you feel any pain you must tell the nursing staff, who can give you painkillers to help**.

- The nursing staff will also advise you when you can start taking sips of water. Anaesthetics can make some people sick. If you feel sick we advise you not to drink until this feeling has passed. The nursing staff may offer you an injection to help this sick feeling go away.

- After a few days, you will be allowed to sit out, drink and eat. Return to mobility can take a few more days.

Going Home

You will normally be allowed home after seven to ten days. This may be longer if you have had surgery to remove areas of gangrene.

Discharge Information

Pain relief and medication

The nursing staff will advise you about painkillers before you leave the hospital. Please tell the nurses what painkilling tablets you have at home.

Your wound

The surgeon usually uses a dissolvable suture in which case you may not require the District Nurse. Staple clips (if used) are usually removed on the eighth day.

Getting back to normal

You will probably feel tired for several weeks after the operation. Build up your activity level slowly and ensure you get enough rest. You should avoid strenuous activity for about six weeks.

You will be safe to drive when you can do an emergency stop and drive without discomfort. This will normally be at about two to four weeks but if in doubt, check with your doctor. Avoid long distances and motorway driving at first.

Returning to work

Depending on your job, you will be able to resume in one to two months. If in doubt, please ask your doctor. Avoid any heavy exercise or lifting for six weeks.

Further Appointments

You will have a follow up appointment in outpatients about six weeks and three months after the operation.

Medication

You will need some antiplatelet medication such as aspirin or clopidogrel 75 mg daily unless you have a medical contraindication to both. Please take any other medication that has been prescribed e.g. for high blood pressure or high cholesterol, and ensure that you have regular blood pressure and cholesterol tests. Your GP (family doctor) or practice nurse can do this.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

LiVES Contact Numbers

During your contact with us, it is important that you are happy with your care and treatment. Please speak to a member of staff and/or the ward/department Sister/Charge Nurse if you have any questions or concerns.

Vascular Ward
Ward 3
Aintree University Hospital
Tel: 0151 529 2028/2262

Vascular Nurses:

Aintree via switchboard
Tel: 0151 525 5980 Bleep 5609/5594 or extensions 4691/4692

Royal Liverpool Hospital via switchboard
Tel: 0151 706 2000 Bleep 4212 or extension 4675
Text phone number: 18001 0151 706 2000 Bleep 4212

Southport via switchboard
Tel: 01704 705124

Whiston Hospital
0151 290 4508/ 430 4199

Secretaries:

Aintree University Hospital
Tel: 0151 706 3691/ 3523/3524/3481/3457/11813
0151 529 4950/4953

Southport/Ormskirk Tel: 01704 704665

Whiston Hospital
St. Helens and Knowsley NHS Trust
Tel: 0151 430 1499

NHS 111
Tel: 111

Circulation Foundation:
www.circulationfoundation.org.uk/vasculardisease/

Smoking cessation:

Liverpool	**Tel: 0800 061 4212/ 0151 374 2535**
Sefton	**Tel: 0300 100 1000**
West Lancashire	**Tel: 0800 328 6297**

Liverpool Vascular and Endovascular Service
Aintree University Hospital
Lower Lane
Liverpool
L9 7AL
Tel: 0151 525 5980
vascsecs@liverpoolft.nhs.uk

Participating Hospitals in LiVES are:

- **Liverpool University Hospitals NHS Foundation Trust**
- **Southport District General Hospital**
- **Ormskirk District General Hospital**
- **Whiston and St Helens Hospitals**

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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