NHS
Lancashire Teaching Hospitals
NHS Foundation Trust

Information for patients and carers

Understanding Femoral Artery Bypass Surgery

Femoro-Femoral Cross Over, Femoral-Popliteal and Femoral-Distal Bypass

Excellent care with compassion

Division of Surgery – Vascular Department

@LancsHospitals

Why do I need the operation?

There is a narrowing or blockage in one of the main arteries taking blood to your leg. This is caused by hardening of the arteries (atherosclerosis). Over the years cholesterol and calcium have built up inside the arteries and caused this narrowing or blockage. The operation you are having is to bypass the blocked arteries in your leg to improve the blood supply.

Benefits of the surgery

- You should be able to walk comfortably for longer distances
- Limb salvage (to save your leg)
- The pain you are having should be reduced
- If your sleep was interrupted due to pain at night, it is expected to improve
- Any ulcers you have should heal with time

Risks of surgery

- Graft failure - immediate/late (the graft may block and it may be necessary to perform a further operation to unblock the graft or redo the bypass; if that is possible)
- 1-5% risk of limb loss (higher if your leg is considered to be in a critical condition)
- 3-5% risk of death
- Heart attack
- Stroke
- Kidney damage
- Graft infection leading to removal of the graft and the symptoms returning (this is uncommon)
- Wound infection
- Fluid leak from the wound which usually settles down in time but will require regular dressings
- Chest infection (you are at a higher risk if you are a smoker)

- Haematoma
- Bleeding/bruising
- Nerve damage (you may have patches of numbness or a burning or pins and needles over your wounds or down the leg which is due to small nerves under the skin having to be cut during surgery) this can be permanent but usually settles down after a few months
- DVT (Deep vein thrombosis)/PE (Pulmonary embolism)

How can I help myself?

The risk factors for developing disease in the arteries include smoking, high blood pressure, poorly controlled diabetes, high cholesterol and being overweight. By now, your risk factors should have been treated. You should be taking an aspirin or alternative antiplatelet tablet/anticoagulant and a statin to reduce cholesterol. If you have high blood pressure you will have medication to control this.

Smoking

If you are still smoking it is important that you give up. Smoking speeds up hardening of the arteries and clamps down on the small collateral vessels (extra small blood vessels that are attached to the main arteries), reducing the amount of blood and oxygen going to the muscles. There is scientific evidence that your bypass graft is more likely to fail if you continue to smoke. You can access help via your GP or local stop smoking service.

Exercise - Walking

There is evidence that people who take regular exercise develop better circulation. Walk at an easy pace until you feel pain and stop. Continue again when the pain disappears. Try to walk a little further each day and you should find that the distance you can manage without pain will steadily increase.

If you are overweight, try to lose weight. If you require help with

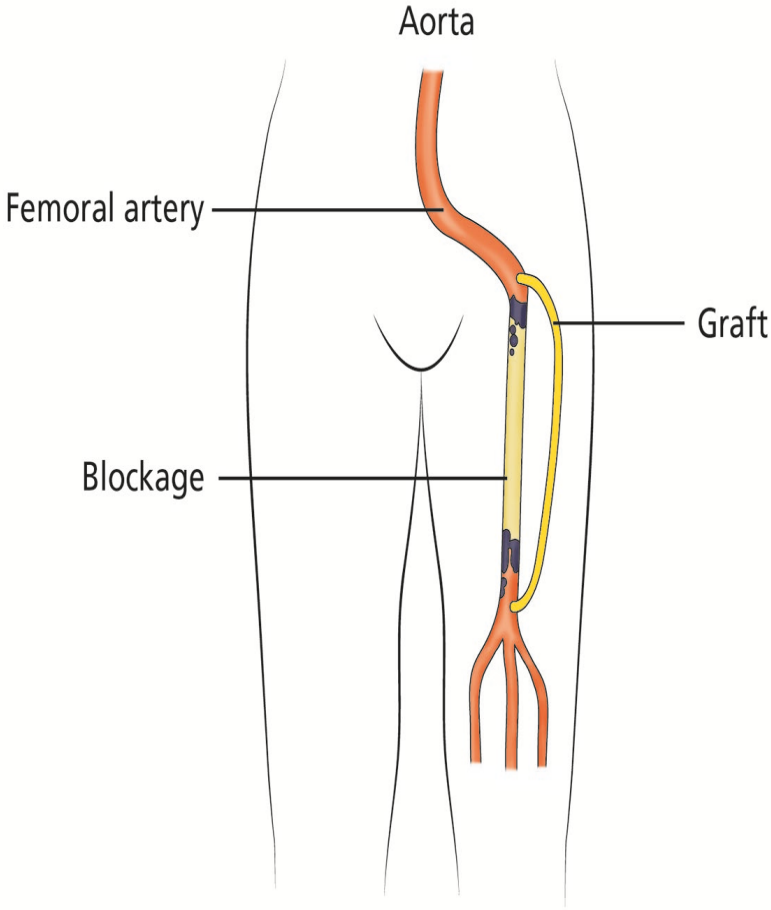
weight reduction or diet you can discuss this with your GP or dietitian (if you have access to one at your GP surgery). If you have high cholesterol you will need a low- fat diet.

Before the operation

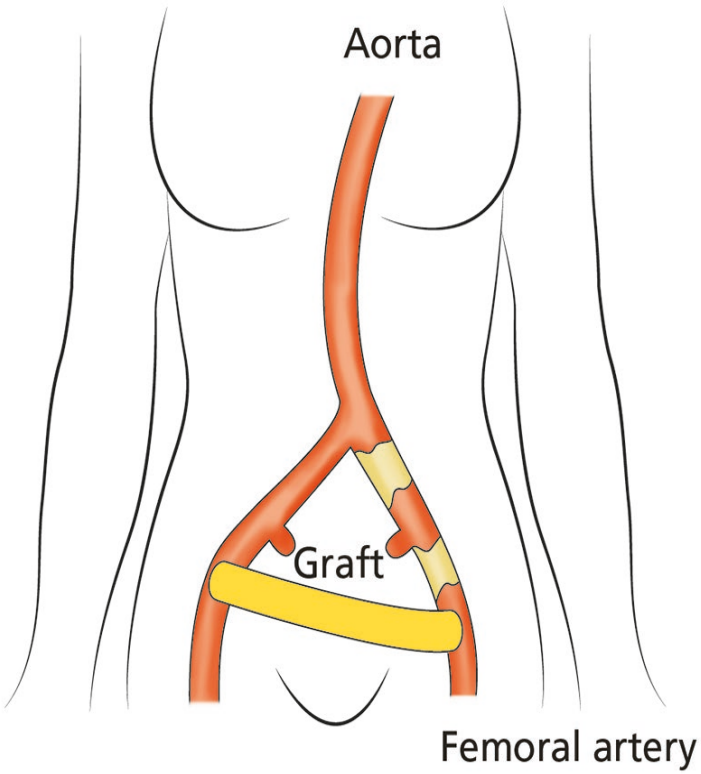
You will have a number of tests to determine the extent of the blockage and procedure required. If you are not already in hospital, you will be asked to attend the hospital for a pre-operative assessment before your operation. This will allow time for tests to be done to ensure you are fit for surgery. You will be able to talk to one of the vascular specialist nurses who will answer any questions you have.

You will be admitted on the day of the operation (a letter will be sent to you with instructions including when to stop eating and drinking). The nurses will help you prepare for theatre. The anaesthetist will visit you on the ward to discuss methods of anaesthesia. If you are diabetic, care will be taken to monitor and control your blood sugars. This may require a needle in your arm with a special drip called a sliding scale.

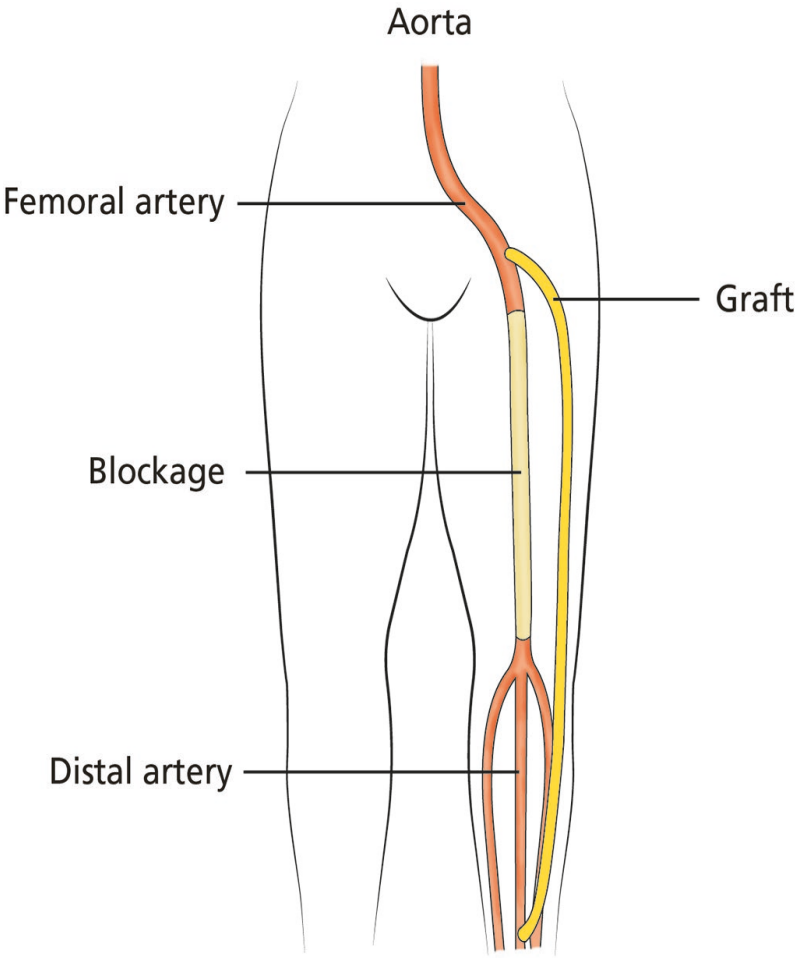
Femoral-popliteal



Femoro-femoral



Femoral-distal



The operation

You will be taken to the anaesthetic room where your details will be checked. You will have heart monitoring stickers placed on your chest; this is so the anaesthetist can monitor your heart during the operation. You may have a tube placed in your bladder (a catheter) to drain your urine. This will be discussed with you. You will either be given a general anaesthetic (where you will be asleep) throughout the procedure) or an epidural (spinal) anaesthetic (where a tube is placed in your back through which local anaesthetic and strong painkillers can be administered). You may have a combination of both methods. This will be discussed with you prior to your operation.

In theatre the blocked artery will be exposed above and below the blockage. You will have an incision in the groin and one or two further down the leg. Sometimes it is necessary to make one longer incision all the way down. The bypass is usually done using the long saphenous vein which runs from your ankle to groin on the inside of your leg. If this is not possible the surgeon may use a vein from your other leg or arm. If there are no suitable veins the surgeon will use an artificial graft.

The surgeon will close your wound using metal staples, non-removable stitches or dissolvable stitches. You may also have a drain (a fine tube attached to a bottle which allows drainage of excess fluid) in your wound. This is usually removed 24-48 hours after surgery.

After the operation

From theatre, you will be taken to the recovery room until you wake up. You may have a tube in your arm through which we can give you any fluids or antibiotics. You will have an oxygen mask on and will be advised when this can be removed. You should be able to eat and drink as normal as soon as you feel able to. If you are diabetic, your blood sugars will be monitored and you can take your normal medication once you are eating again.

The nurses will regularly monitor your blood pressure, pulse, temperature, respiratory rate and oxygen levels (observations). The colour, warmth, sensation, movement and pulses of your feet will also be regularly monitored.

It is important to keep your lungs clear by way of intermittent deep breathing and attempts to cough up any secretions so as to reduce the risk of chest infection. You may receive help from the physiotherapists to achieve this.

Pain control

The anaesthetist will discuss with you the options for pain control after your operation.

An epidural may be used during surgery to supplement a general anaesthetic and may continue after the operation for pain control. The nerves to your lower back pass through an area close to your spine called the 'epidural space', the anaesthetist uses a needle to place a fine plastic tube (an epidural catheter) into the epidural space. Local anaesthetic and sometimes other pain relief medicine are put through this catheter to block the pain messages and relieve the pain.

Other pain-relieving medicines e.g. morphine can be put into a pump called a patient controlled analgesia pump (PCA). The pump will be

connected to a vein in your hand or arm and you will be able to press a button to deliver a pre-set dose of the pain relief medicine.

As your condition improves the PCA or epidural will be removed and you will be given pain relief medicines in either tablet or liquid form.

Every effort will be made to keep you as comfortable as possible following your operation.

What happens over the next few days?

You will be asked to stay in bed and rest immediately after surgery and overnight. Nurses will assist you with personal care needs To prevent pressure ulcers, chest infections and deep vein thrombosis you will be advised to move regularly in bed and will be helped with this if required.

You will be reviewed by the duty vascular consultant or one of their team every day of your stay in hospital.

The first day after your operation you will either be advised by your consultant to stay in bed and rest or you may be able to sit in a chair with your legs elevated; this will depend on how you are feeling.

Over the next few days you will be encouraged to walk. If required a physiotherapist will assess your mobility, provide you with exercises and possibly offer you a walking aid. Once you are mobile your catheter will be removed.
You will be in hospital for approximately 3-7 days after your operation, depending on your condition. If you feel you may require some help at home please ask the nursing staff who will refer you to the appropriate people.

Your wound

This will be carefully monitored and dressings will be removed and changed when necessary. The groin is an area where infection can

easily occur and should be kept clean and dry at all times. The groin wound can leak clear fluid called lymph and will require regular dressings; this should settle with time.

If your wound was closed with staples or stitches that need removing this is usually done on day 7-14 after the operation. Your practice nurse of district nurse will remove your staples or stitches. As you return to normal activity you may find your wound causes you some discomfort for a few weeks. During the operation the surgeon will cut some small nerves near to the skin. This may cause numbness around the wound and burning or pins and needles down your leg. This should settle in time but may not completely disappear. Your scar will fade after 6-12 months.

Your leg may be swollen after surgery. This is caused by fluid from the cells collecting under the skin and is a normal reaction to surgery. You should alternate between periods of gentle walking and rest with your leg elevated. Do not stand for long periods during the first month after the operation.

If your bypass graft goes below your knee you should also avoid kneeling down or bending your leg for prolonged periods of time to avoid kinking/ blocking the graft.

At home

You may feel tired for several weeks after the operation but this should gradually improve as time goes by.

You should be able to resume normal activities when you feel well enough. Regular exercise such as short walks combined with rest is recommended for the first few weeks. Avoid heavy lifting, strenuous activity or over stretching for 4-6 weeks.

Bathing: You may bath or shower as soon as your wound is dry, even if you have stitches or staples.

Work: You may be able to return to work within 6 weeks of surgery depending on your condition and type of job. Please let the doctors know if you need a sick note prior to discharge.

Driving: You can drive when you can safely perform an emergency stop. This will usually be 6-8 weeks after surgery, but if in doubt check with your GP and your insurance policy. If in doubt wait until you attend for your follow-up clinic appointment.

Follow-up: You will need to visit the vascular out-patients clinic, at your local hospital, approximately 4-8 weeks after your operation.

When to seek help

If you develop sudden pain, numbness, coldness or change of colour in the leg contact your GP or go to your local A&E Department immediately as it could indicate that the bypass has blocked.

If you develop any sudden swelling and pain in your calf contact your GP or go to the A&E Department as this could indicate a deep vein thrombosis (DVT).

If you notice that your wound site is red, inflamed or discharging pus or fluid contact your GP immediately as you may require antibiotics.

If you have any worries or questions before admission or after discharge please do not hesitate to contact the vascular specialist nurses for advice.

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

Contact details

Should you require further advice or information please contact:

Vascular Specialist Nurses

Preston / Chorley site - 01772 523757 or via switch board on 01772 71655 and ask for bleep 4605 or 4606.

Blackpool site: Via switch board 01253 300000 and ask them to contact the Vascular Specialist Nurse.

Royal Lancaster hospital: Via switch board 01524 65944 and ask them to contact the Vascular Specialist Nurse.

Furness General: Via switch board 01229 870870 and ask them to contact the Vascular Specialist Nurse.

Vascular secretaries

Preston/Chorley/Blackpool/Lancaster/ Kendal /Furness General Hospital:
Via switch board: 01772 716565.

Wigan Wrightington and Leigh:
01942 264057 / 01942 822068.

Sources of further information

www.lancsteachinghospitals.nhs.uk
www.nhs.uk
www.patient.co.uk
www.accessable.co.uk

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on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking including Nicotine Replacement Therapy to help manage your symptoms of withdrawal. If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Cantonese:
如果你希望以另外一種格式接收該資訊，請和我們聯絡，不必猶豫。

Gujarati:
જો તમને આ માહિતી બીજી રચના કે ફોર્મેટમાં મેળવવાની ઈચ્છા હોય, તો કૃપા કરી અમારો સંપર્ક કરતા અચકાશો નહિ.

Hungarian:
Kérjük, vegye fel velünk a kapcsolatot, ha más formában kéri ezt az információt.

Polish:
Jeżeli chciał(a)by Pan/Pani otrzymać niniejsze informacje w innym formacie, prosimy o kontakt.

Punjabi:
ਜੇ ਤੁਸੀਂ ਕਿਸੇ ਹੋਰ ਫਾਰਮੈਟ ਵਿਚ ਇਹ ਜਾਣਕਾਰੀ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ ਤਾਂ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰਨ ਤੋਂ ਨਾ ਝਿਜਕੋ।

Urdu:
اگر آپ اس معلومات کو کسی اور صورت میں حاصل کرنا چاہتے ہیں تو برائے مہربانی ہم سے رابطہ کرنے میں ہچکچاہٹ محسوس نہ کریں۔