

Femoral artery bypass graft **(Including femoral crossover graft)**

Why do I need the operation?

You have a blockage or narrowing of the arteries supplying blood to your leg. This reduces the blood flow to the leg, resulting in the problems you are experiencing and is caused by hardening of the arteries of “atherosclerosis”. You may be having pain in one or both of your legs when walking, in which case this operation will improve these symptoms. You may be getting pain at rest and may have ulcers or gangrene. In such cases your leg is at risk of amputation. This operation aims to bypass the blocked arteries in the leg so that the blood supply is improved and you do not need to have an amputation.

What happens before the operation?

Your risk factors for developing disease of the arteries should have been treated by now. So you should be taking aspirin or an alternative if you have history of an ulcer. Aspirin helps prevent the blood from becoming “sticky.” You should also be taking a “statin” for cholesterol and, if you have high blood pressure, a tablet to control this.

If you smoke it is important that you give up. There is good evidence that the bypass graft is more likely to fail if you continue to smoke.

If you are overweight, try to lose some weight.

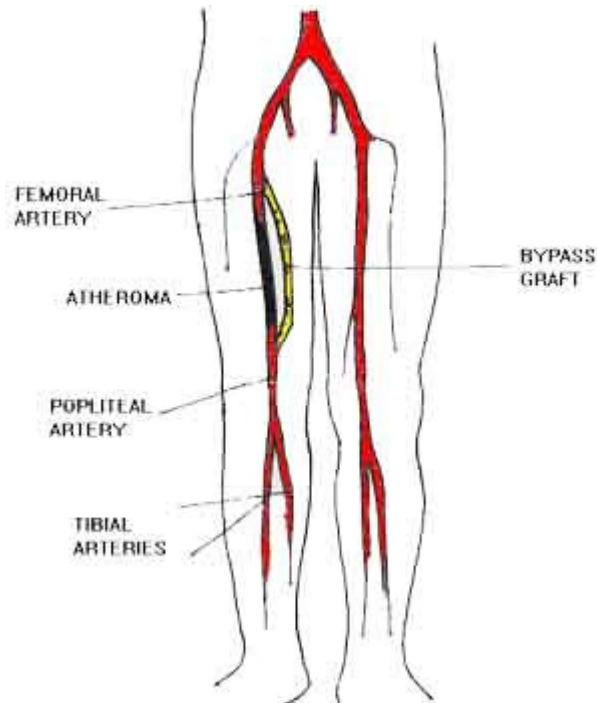
You will have a number of tests before your operation to assess your fitness for anaesthetic and others to assess your arteries and veins. Tests of suitability and fitness will be done before a final decision is made to undertake the operation. A duplex scan is similar to an ultrasound scan and will look at your arteries. It can also be used to assess if a vein can be used for a bypass graft. You may have had an MRI scan or a CT scan or an angiogram. These tests show the doctor where the blockage is and its severity. You may have had an angioplasty in the past, which is an X-ray procedure to stretch the artery. You will have blood tests and a heart tracing (EGC) which will be done in pre-admission clinic and a chest x-ray may also be done.

What happens when I come into hospital?

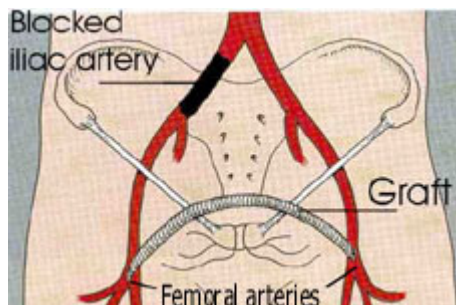
You will be admitted the day before your operation. Please bring in all medication you normally take. You will be seen by the doctor and also the anaesthetist. Please ask the doctors or nurses if there is anything you are not sure of.

What happens during the operation?

- The nurse will tell you when to stop eating and drinking. You will be asked to shower and put on a gown. If you are diabetic, special care will be taken to keep your blood sugar stable. This may include a needle in your arm with a drip.
- You will be taken to the anaesthetic room. You will either be put to sleep or you may have an epidural or a spinal anaesthetic. These options will be discussed with you before the operation. An epidural involves a tube in your back to give strong painkillers which numb the lower half of your body. This can stay in for a number of days. A spinal is similar but lasts for the duration of the operation only. You will have a tube inserted in your bladder (a catheter) to monitor your urine and a drip in your arm to give you fluids.
- The blocked artery is exposed above and below the blockage.
- You will have a cut in your groin and another lower down the leg. Sometimes the incision is at calf level.
- The bypassing is usually done using the long saphenous vein which runs from your ankle to groin in the inner side of your leg. It lies in the line of the incisions used to expose the artery.
- Sometimes the vein can be removed with one small incision at thigh level approximately 5cm long or all three incisions can be joined to make one long one.
- If the vein in this leg is not available for use then one in the other leg can be used or in your arm. If no veins are available then an artificial bypass tube made of flexible material is used. The pre-operative ultrasound assessment of veins will determine what will be used as the bypass.
- The bypass tube is attached to the artery above the blockage at groin level and below the blockage and stitched in with very fine stitches. (femoral popliteal bypass)



- Sometimes the bypass tube is inserted to the arteries above your groins which supply the legs and goes from left to right or vice versa. This is called a crossover graft.



- Whichever way is used for your bypass surgery the wound is usually closed with stitches, often dissolvable, but very occasionally metal clips or non dissolvable stitches.
- When you have woken up from the anaesthetic you will return to the ward where you will be closely monitored.

What happens after the operation?

- You will have regular temperature, pulse and blood pressure checks. We will also regularly check your wounds and the condition of your leg. This ensures you are recovering safely and the bypass is working.

- You will have a drip in your arm to keep you hydrated. You may start eating and drinking as soon as you feel able but it is recommended that you take things slowly at first with just sips of water. If you are diabetic you will be monitored and can resume your medication when you are eating again. You will have an oxygen mask on and will be told how long it must stay on for. The physiotherapists will visit and help you with deep breathing exercises. This is to help prevent a chest infection.
- You can have painkillers either by injection, via a tube in your back (epidural) or by a machine with a button which you can press yourself. (Patient controlled analgesia or PCA)
- You will need to stay in bed for about 48 hours. After this you will be allowed to gradually increase your mobility. The physiotherapists and nurses will help you with this.
- You will have a tube draining urine from your bladder (a catheter). This will be removed after a couple of days.

What are the risks?

- The main complication of this operation is the blood clotting in the graft causing it to block. If this occurs it will be necessary to have another operation to clear the blockage. This may occur in about ten percent of cases in the six weeks following surgery. There is a small risk that you will need an amputation if the bypass blocks and circulation cannot be restored. There is a risk that the graft may block in the months following the surgery so it is important to attend follow up appointments and scans as sometimes a narrowing can be detected before it causes any symptoms.
- As with any major operation there is a risk of a major complication such as heart attack, stroke, kidney failure, chest problems, and loss of circulation in the legs or bowels or infection to the artificial artery. The chances of this happening are low – for most patients the risk is about five percent. In other words 95 out of every 100 who have this operation will make a full recovery. We will try to prevent these complications and deal with them rapidly if they do occur.
- It is normal for the leg that was operated on to swell after this operation. The swelling can last for two to three months. It should resolve but in a very small proportion of patients may persist indefinitely. It is important to elevate the leg on a stool when you sit down. Don't wear tight stockings or bandages as this can compress the bypass graft and cause it to block.
- Wounds sometimes become infected. Severe infections are rare. If you get a wound infection you will be given antibiotics. A small number of patients may need to go back to theatre to have the incision cleaned out under anaesthetic.

- In about 1 in 500 cases the graft becomes infected. This is a serious complication and usually means it will have to be removed.
- You may have some numbness around the wound or further down the leg. This is due to nerves to the skin being cut, which cannot be avoided. The sensation may return after some time but in some cases will not.
- The wound may leak some clear or blood stained fluid. This is usually nothing to worry about and will clear up with time.
- Bowels may be slow to get moving due to the painkillers we will be giving you and lack of mobility. You can ask the nurse or doctor for laxatives.
- Chest infections are more common in smokers and are treated with antibiotics and physiotherapy.

What happens when I go home?

- If you have stitches/clips, they will usually be removed before you go home. If not we will arrange for the district nurses or practice nurse at your GP surgery to do it.
- You will feel tired for several weeks after the operation. Build up your activity slowly and ensure you get plenty of rest. Short walks combined with rest are recommended in the first few weeks. Avoid strenuous activity for four to six weeks and check with your doctor before recommencing it.
- You are safe to drive when you can perform an emergency stop. This will be at about four weeks but everyone is different and if in doubt check with your doctor. Avoid long distances and motorway driving to begin with.
- Depending on your job you will be able to return within six to twelve weeks. If in doubt ask your doctor.
- You may resume your normal sex life after three to four weeks, if you are happy to do so.
- You can bath or shower as soon as your wound is dry, even if you still have stitches and clips.
- You will have a follow up appointment six weeks after discharge home. You will also be asked to attend duplex scans at various intervals to ensure the bypass is still working properly.

What can I do to help myself?

- If you smoke the most important thing you can do to help yourself is give up smoking. Smoking will cause further damage to your arteries and, if you continue to smoke, your bypass is more likely to stop working. Help is available and please ask for it if it is not offered.
- Reduce your weight if necessary; regular exercise and a low fat diet will keep you and your arteries healthy.
- If you are diabetic take good care of your feet and examine them regularly.
- Take the medication that is prescribed for you and attend all appointments made for you. Even if you have no symptoms you must still have the scans.