

# Aortobifemoral bypass graft

## Vascular Surgery Patient Information Leaflet

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[www.circulationfoundation.org.uk](http://www.circulationfoundation.org.uk)

## **Introduction**

This leaflet tells you about the operation known as aortobifemoral bypass. It explains what is involved before, during and after the operation. It also explains what the possible risks are, and how you can make your operation a success. We would particularly ask you to read the sections headed 'Is the treatment safe?', 'What do I do if I feel unwell at home?' and 'What should I do before I come into hospital?' This leaflet is not meant to replace the information discussed between you and your doctor, but can act as the starting point for such a discussion or as a useful reminder of the key points.

## **Why is my surgery in Dudley?**

Vascular services in the Black Country are centralised in the Black Country Vascular Hub, located at The Dudley Group NHS Foundation Trust. This surgery is not performed at other Black Country Hospitals. Vascular surgeons based at New Cross and Walsall Manor perform their surgery in Dudley, working alongside our Dudley-based surgeons.

## **Why does the blockage develop?**

The blockage develops because of a slow build-up of fat and blood clots in the wall of these blood vessels. You've probably had this happening over many years, but it only causes a problem when it gets quite severe. It's the same process that occurs when blockages happen in other parts of the body, causing heart attacks and strokes. The disease is especially common in people who have a history of high blood pressure, diabetes and smoking.

## **Why do I need the operation?**

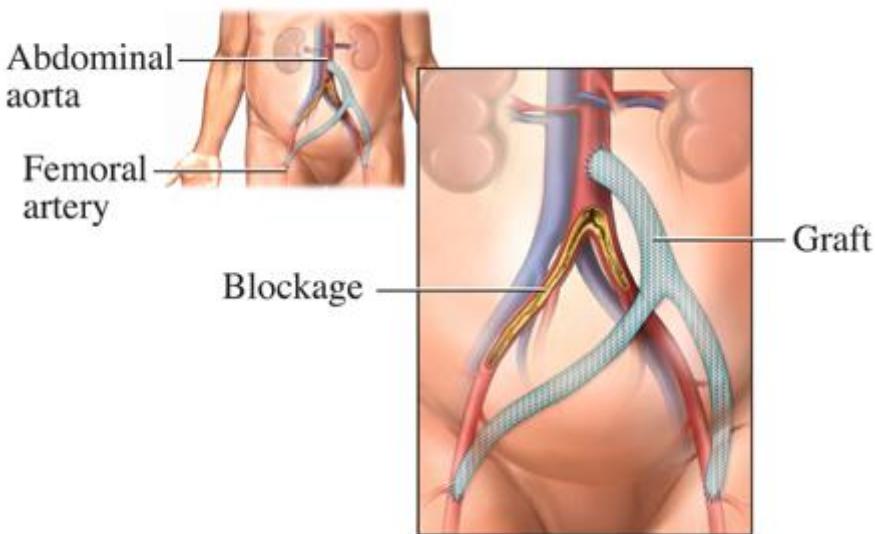
Because you have a blockage or narrowing of the arteries supplying to your legs, the circulation of blood to your legs is reduced. This becomes particularly noticeable when your muscles require more blood during walking and causes pain.

If your disease is more severe, you may have pain at rest, ulcers or black areas of dead skin.

This operation is to bypass the blocked arteries in the leg so that the blood supply is improved. If the surgery is successful, it should allow you to walk further without pain. If your disease is more severe, this operation can be used to prevent the need for amputation.

## Arteries of the Leg

The aorta is the main blood vessel that runs from the heart down through the chest and tummy. At the level of the tummy button it splits into iliac arteries which go down towards the legs, where the femoral artery begins.



## What is an aortobifemoral bypass graft?

An aortobifemoral bypass graft is an operation in which an artificial tube is inserted from the end of the main artery in the body (the aorta) to the arteries that supply blood to the legs (the femoral arteries). The graft allows blood to flow around areas of blocked blood vessels.

## **How will this operation help?**

The aim is to improve the blood supply to your diseased leg and to relieve the symptoms. By doing this, it is hoped to prevent and save a foot from progressive ulcers or gangrene leading to amputation. It may also increase the distance at which you can walk before experiencing a feeling of cramp in the muscles of your legs.

## **Are there alternatives?**

The blood supply to your leg has become compromised by a blockage of the main artery and needs to be corrected to maintain the health of your leg and foot and to help you walk more comfortably. You could carry on as you are, and it has to be your decision to have surgery. If your disease is severe, you could choose to have the leg amputated. There are sometimes alternative bypass operations (such as axillofemoral) that you could have, or angioplasty (balloon stretch of the artery under local anaesthetic), but these will depend on the extent and position of the blockage in your leg artery and if your surgeon feels that this is a possible option.

Your condition will be discussed in our multidisciplinary team meeting when all the specialist doctors come together to make plans on how to treat patients.

## **Is the treatment safe?**

This is a major operation. The risk to you as an individual will depend on:

- Your age
- Your general fitness
- Whether you have any medical problems (especially heart disease)

As with any major operation such as this, there is a risk of you having medical complications such as:

- Death (one in 50)
- Heart attack (one in 20)
- Chest problems
- Deep vein thrombosis (blood clots in the leg veins)
- Stroke
- Kidney failure (one in 40)
- The loss of circulation to the legs or bowel
- Infection in the artificial artery

Each of these is rare, but overall it does mean that some patients may have a fatal complication from their operation. For most, the risk is about five per cent, so in other words 95 in every 100 patients will make a full recovery from the operation.

The doctors and nurses will try to prevent these complications and deal with them rapidly if they occur.

The important complications that you should have discussed with your consultant are:

- Infection of the artificial artery. This is rare (about one in 500), but it is a serious complication and usually treatment involves removal of the graft. It is much less common when the vein is used to reconstruct the artery. To try to prevent this from happening, you are given antibiotics during your operation.
- Wound infection. Wounds sometimes become infected and this may need treatment with antibiotics.
- Bleeding. This may require a return to theatre.

- Blockage of the bypass graft. This is a specific complication of this operation where the blood clots within the bypass graft, causing it to block. If this occurs, it will be necessary to perform another operation to clear the bypass.
- Limb loss (amputation). Very occasionally, when the bypass blocks and the circulation cannot be restored, the circulation to the foot is so badly affected that amputation is required.
- Heart complications. Major surgery stresses the heart and this can sometimes cause heart attacks, abnormal heart rhythms or heart failure.
- Chest infections can occur following this type of surgery, particularly in smokers, and may require treatment with antibiotics and physiotherapy.
- Leg swelling. This is normal after surgery and is nothing to worry about as it results from extra blood flow following surgery. The swelling may last for several months. With this swelling, your wound may leak clear fluid, but this will settle down with time and as the incision heals. Elevation of the leg can help.
- Skin sensation. 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 improves within a few months.
- Occasionally, the bowel is slow to start working again. This requires patience and fluids will be provided in a drip until your bowels get back to normal.

## Before your operation

Your surgeon will ask you to sign a consent form. They will explain what the procedure involves, the risks and the benefits.

If you are not already in hospital, you will be asked to attend a pre-admission clinic before your operation in order to allow time for the tests required to make sure you are fit for the operation. These will include blood tests, an electrocardiogram (heart tracing) and an X-ray of the arteries (arteriogram) to find out where the blockages are if it has not already been done.

The preoperative assessment team will assess your medical history, arrange any additional tests that are necessary and provide you with information about having an anaesthetic. Sometimes, you may need to see one of our consultant anaesthetists before the day of your surgery.

We will review your regular medicines when you come to hospital for your pre-admission appointment. If you are taking any medicines that thin the blood (such as warfarin), then you may need to stop them temporarily before the procedure. You do not need to stop aspirin. You will be given full information on any changes that you need to make to your medicines at the pre-admission clinic – please ask us if you have any questions.

We will provide you with instructions on which of your drugs to stop and when, especially blood thinners, and very important fasting plans. They are as follows:

- No solid food, carbonated drinks or fat containing drinks within six hours of surgery. Milk has fat and so can't be drunk in tea or coffee.
- Clear liquids, including tea or coffee WITHOUT milk can be drunk until two hours before surgery.

We ask that you avoid fasting for any longer than is necessary as it will increase your risk of feeling sick before and after surgery. You will be given a container of sweet drink called PreloadTM to take two hours before surgery.

## **What can I do to help myself?**

It is important to prepare yourself well for the operation. There is a lot that you can do to improve your fitness.

### **Smoking**

If you smoke, you must try hard to give up before your operation. The longer you can give up for, the better. Continued smoking will cause further damage to your arteries, your graft is more likely to stop working and you are more likely to have complications from your operation. Your vascular specialist nurse or GP practice nurse can advise you about these.

- If you can stop smoking for a day or two, your blood cells can carry more oxygen around your body.
- If you can stop smoking before you come into hospital, you are less likely to get a chest infection after the operation. The earlier you stop, the lower this risk becomes.

### **Losing weight**

If you are overweight, some of the risks of the anaesthetic and the operation are increased. Losing weight will reduce these risks. You should consider a change to your diet by reducing the amount of fat that you eat. If you require any advice about this, an appointment can be made to see the hospital dietician.

### **Exercise**

Regular exercise will increase your strength and fitness. There is no need to push yourself – a regular walk at your own pace will boost your stamina.

### **High blood pressure**

High blood pressure is a known risk factor for vascular disease. It is very important that you have your blood pressure checked regularly, at least every six months. If you have been prescribed medications for high blood pressure, you must make sure that you take it according to the instructions given.

## **Diabetes**

If you have diabetes, it is important that your blood sugar levels are well controlled.

## **High blood cholesterol levels (fatty substance in your blood)**

You should eat a healthy balanced diet and try to reduce any excess weight. It is important to reduce the level of cholesterol in your blood. Your vascular nurse can refer you to a dietician if needed. You may be prescribed medication to help lower your cholesterol level (e.g. a statin) and low-dose aspirin to help prevent blood clots from forming.

## **Coming into hospital**

If you are not already in hospital, you will usually be admitted on the day of surgery. Our vascular ward is ward B3. Please bring with you all the medications that you are currently taking. If you have any questions regarding the operation please ask the doctors.

On the morning of the operation, you will be asked not to eat for a minimum of six hours before surgery.

More detailed instructions will be provided in surgical preassessment. You will be given a theatre gown to wear.

## **The anaesthetic**

You will meet the anaesthetist, who is a doctor with specialist training in anaesthesia, the treatment of pain and the care of patients in the Intensive Care Unit. They will plan and discuss procedures including:

- Lines into an artery in your arm
- Lines into veins to give drugs
- Pain relief e.g. epidural insertion into your back for pain relief

These mostly happen before you go to sleep.

When you arrive in the anaesthetics room, we will confirm your details including your identity, the operation and your consent.

The anaesthetic procedures we discussed with you will then be carried out, including going to sleep. While asleep, we will complete any other procedures such as a line into veins of the neck and a catheter into the bladder.

To read more about anaesthetics, visit [www.dgft.nhs.uk/anaesthetics](http://www.dgft.nhs.uk/anaesthetics) or contact our surgical preassessment team (01384 456111 ext. 1849)

## **After the operation**

### **How will I feel afterwards?**

After spending some time in the recovery area of the theatre, you will return to the Vascular Specialist Care Unit, on ward B3.

In this special area of the ward, there are more nurses to look after you and specialist monitoring equipment to ensure you are safe and that any complications are recognised quickly. The nurses will give you pain killers and medicines to prevent sickness.

You will be able to eat and drink straight away after the surgery. We aim to remove drips and tubes as soon as possible.

The position of the groin wounds will make moving uncomfortable at first. You will be encouraged to get up on the first day after your operation for a short while. The nurses and physiotherapists will assist you with this. You will progress to walking after 48 hours following your operation. This will encourage blood flow, aid the healing of your wound and prevent complications in recovery.

As a safety measure, you will receive injections of a blood-thinning substance to prevent blood clots from forming. When sitting out in a chair, you will be encouraged to elevate your legs.

When lying in bed or sitting out, it is advisable to continue leg and deep breathing exercises taught to you by the physiotherapist.

The wound is usually closed with stitches or clips that are removed seven to ten days after the operation, or dissolvable buried sutures that do not need to be removed. You can be discharged with the staples in place and arrangements are made for their removal with either the district nurse or at your GP's surgery. You will be advised as necessary.

It is quite common to feel a bit low after having an operation – this can be caused by a number of factors such as pain, feeling tired and not sleeping well. The nurses can help you with this, so please do not hesitate to let them know how you are feeling. It may be as simple as changing your painkillers or having a light sleeping tablet that will make you feel better.

## **Going home**

The timing of discharge varies from patient to patient, depending on their walking ability. Usually your hospital stay is five to seven days. If dissolvable stitches have been used, these do not need to be removed. If your stitches or clips are the types that need removing and this is not done whilst you are still in hospital, your GP practice or district nurse will remove them and check your wound.

You will feel tired for many weeks after the operation, but this should gradually improve as time goes by. Regular exercise such as a short walk combined with rest is recommended for the first few weeks following surgery, followed by a gradual return to your normal activity.

## **Driving**

Before resuming driving, you will need to be fully recovered from your surgical procedure. You should be free from the distracting effect of pain or the sedative, or other effects of any pain relief medication you may be taking.

You should be comfortable in the driving position and able to safely control your car, including freely performing an emergency stop.

Your insurance company should be informed about your operation. Some companies will not insure drivers for a number of weeks after surgery.

### **Bathing**

Once your wound is dry, you will be able to have a bath or shower as normal.

### **Work**

You should be able to return to work within one to three months following your operation. If in doubt, please ask your doctor.

## **What do I do if I feel unwell at home?**

In general, call your GP or the out of hours doctors service. If you develop sudden pain or numbness in the leg that does not get better within a few hours, contact the hospital immediately. Likewise, if you experience any pain or swelling in your calves, any shortness of breath or pains in your chest, you must seek medical attention.

## **Will I have to come back to hospital?**

The vascular team may review you six weeks after discharge in the outpatient department to observe your progress, but this is not always necessary if you are completely well. You can contact the vascular team if you have a problem.

### **Finally**

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure before you sign the consent form.

## Useful web addresses

- [www.dgft.nhs.uk](http://www.dgft.nhs.uk)
- [www.nhs.uk](http://www.nhs.uk)
- [www.circulationfoundation.org.uk](http://www.circulationfoundation.org.uk)
- [www.vascularsociety.org.uk](http://www.vascularsociety.org.uk)

## Further information

If you have any questions, or if there is anything you do not understand about this leaflet, please contact your vascular nurse specialist or your consultant's secretary:

Russells Hall Hospital, Dudley on 01384 456111

Ward B3, Russells Hal Hospital on 01384 456111 ext. 2717

Walsall Manor Hospital on 01922 721172 ext. 6669/7763

New Cross Hospital, Wolverhampton on 01902 307999

**This leaflet can be downloaded or printed from:**

<http://dgft.nhs.uk/services-and-wards/vascular-service>

**This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.**

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