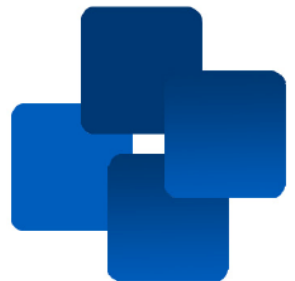


Patient Information

Arterio-Venous Fistula Creation

Renal Department



Introduction

This booklet is intended to provide you with information regarding the formation of an arterio-venous fistula (AVF).

What is haemodialysis?

Haemodialysis removes waste products from the blood by passing it out of the body through a filtering system which is called a dialyser (artificial kidney) and then returning it, cleaned, to the body.

If you decide to choose haemodialysis, you may have the option of having a haemodialysis machine installed in your home. This means that you will not have to make regular visits to a dialysis unit. There are a number of criteria that usually have to be met for home haemodialysis to be considered as a suitable treatment option. This can be discussed with you at a later date.



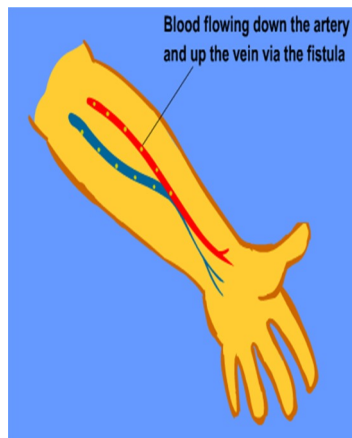
Haemodialysis is carried out three to four times per week and each session lasts approximately 3-4 hours. Your renal doctor will advise you on the length of time that you will need.

Gaining access

In order for you to accomplish haemodialysis, it is necessary for us to have easy access to your blood vessels. If you choose to receive haemodialysis, the first step usually involves creating an arterio-venous fistula (AVF). An AVF is best practice for haemodialysis access.

Fistulas are considered the most reliable long term access as they last longer and have fewer problems, such as infections and clotting, compared with other forms of vascular access.

An AVF is a surgically modified blood vessel that is created by joining an artery to a vein. The fistula is usually created in your wrist or upper arm. The joining of the vein and artery together will make the blood vessel stronger and larger which will make it easier to transfer your blood into the dialysis machine and back again.



The AVF is ready to use when the vein has become strong enough to support the dialysis needles. This can take a minimum of six to eight weeks, but can take longer in some individuals.

The creation of the fistula will require a short operation under a local anaesthetic in an operating theatre. If you believe you may need additional medication to help you feel more relaxed, please discuss this with the doctor. Occasionally a general anaesthetic may be required. You will be advised of this by your doctor. This can be carried out as a day case or in some circumstances, an overnight stay may be required.

Once you have had your surgery you should be able to feel a 'buzzing' sensation over your skin. This sensation is called a '**bruit**' or 'thrill'. This is a good sign as it shows that your fistula is working well. You will be shown how to feel for this 'buzz' before you are discharged home after surgery.

Advantages of having a fistula

- There is less risk of infection.
- Fistulas normally function considerably longer than grafts or renal dialysis catheters.
- You are able to go swimming with a fistula.
- Fistulas provide better blood flows than renal dialysis catheters, therefore giving you a better dialysis.
- They are better for long term survival on dialysis.

Are there any restrictions following surgery?

- After your operation a dressing may be applied to your arm to protect the AVF. You will be told by the nursing staff if and when the stitches need to be removed following your surgery.
- You are advised **not** to drive for two weeks after the operation. Please check details with your insurance company first.
- After your fistula operation there may be a slight swelling of the arm for a few days. We recommend that you **do not** do any heavy lifting or play contact sports for at least two weeks after your surgery.

Care of my fistula

We recommend the following actions to ensure that your AVF remains healthy and working:

- **Do not** wear anything tight on your fistula arm, this includes watches and clothing.
- **Do not** carry anything heavy with your fistula arm. This includes carrying young children.
- **Never** allow blood samples or needles for infusions to be taken or placed in your fistula arm.
- **Do not** have your blood pressure taken from your fistula arm.
- If you become unwell, or during hot weather, ensure that you **do not** become dehydrated as this may cause your AVF to stop working. Seek further advice from your dialysis nurse.
- Regularly check for your bruit four times each day.
- Avoid sleeping on your fistula arm.
- Contact the renal department if you have any concerns regarding your AVF.

How is my fistula used for dialysis?

Once your AVF is ready to use, two needles will be inserted and then taped into place.

One needle will take blood out from your body which is then to be cleaned in the filter known as a dialyser (artificial kidney). The 'dirty' dialysate fluid is then pumped out of the dialyser, and the 'clean' blood is passed back into your body via the second needle.



Once the dialysis session is complete, the needles will be removed and a plaster will be applied to prevent bleeding.

What are the possible complications of having the procedure?

With any medical procedure there is a risk of having a complication. It is important that you know what they are. Some of these are listed below:

- The first attempt at creating an AVF is not always successful, surgery may need to be repeated.
- There is a small risk of bleeding after the operation.
- Your wound may become infected after surgery. If this occurs you will be given some antibiotics.
- Your arm can swell up for two to three weeks after the operation.
- It may not be possible to find a suitable vein and artery to form a fistula.
- Sometimes it may take longer than six to eight weeks to develop.
- Occasionally an AVF will never develop.

What are the possible complications once you have a fistula?

Many good fistulas cause very few problems over the years, however the following problems may occur:

- The fistula may develop a blood clot which may cause the AVF to stop working or the blood vessels which form the AVF may narrow over time. This can often be treated.
- Sometimes the circulation to the hand is reduced by the presence of an AVF. The affected hand may feel cold and your fingers may become discoloured. You may also experience a tingling sensation or discomfort in the hand. If this occurs we will get you to see one of our surgeons.
- Your AVF may become too large over a period of time. If this happens you may need an operation to try and reduce the size.

What happens next?

Before the operation you will be sent pre-operative information in the post. Fasting instructions will be given together with details of what medication you can take prior to the surgery.

Important - You must tell staff beforehand if you have a problem with bleeding or if you are taking tablets that affect bleeding, such as warfarin. If you are a diabetic you will be given specific instructions according to individual need regarding fasting and medication for the day of surgery.

What happens if my theatre is on my dialysis day?

Occasionally, the appointment for your fistula may coincide with your usual dialysis day. Please contact your dialysis unit who will arrange for you to have dialysis the day before.

What do I need to bring in with me on the day of the operation?

You will need to bring into hospital your usual medication and some comfortable clothes or nightwear to change into. You are advised to bring in toiletries in case of an overnight stay.

You are advised not to wear jewellery, make-up or nail varnish.

When will I go home?

If there are no complications, you may be able to go home later the same day. Prior to discharge, you will be taught how to feel for the 'buzzing' of your fistula.

When you go home you will need to be driven by a member of your family or friend. It is advisable to have someone at home with you the night following the procedure.

Please discuss with a doctor the time required that you will need to take off work.

Questions I would like to ask the staff:

Contact details

If you have any questions regarding your access, the Renal Access CNS is available Monday to Friday, 8am – 4pm and can be contacted on **01438 284624**.

A message can be left on the answer phone.

Other Useful Numbers

Ward 6B, Nephrology (Renal) Ward, Lister Hospital	01438 285063
Advanced Kidney Care Department	01438 285255
Lister Haemodialysis Unit	01438 284152
St Albans Haemodialysis Unit	01727 897588
Chiltern Haemodialysis Unit:	01438 288850
Bedford Renal Unit	01438 286750
Harlow Renal Unit	01279 278205

Further information

www.nhs.uk

www.renal.org

www.kidney.org.uk

www.kidneypatientguide.org.uk/site/intro.php

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