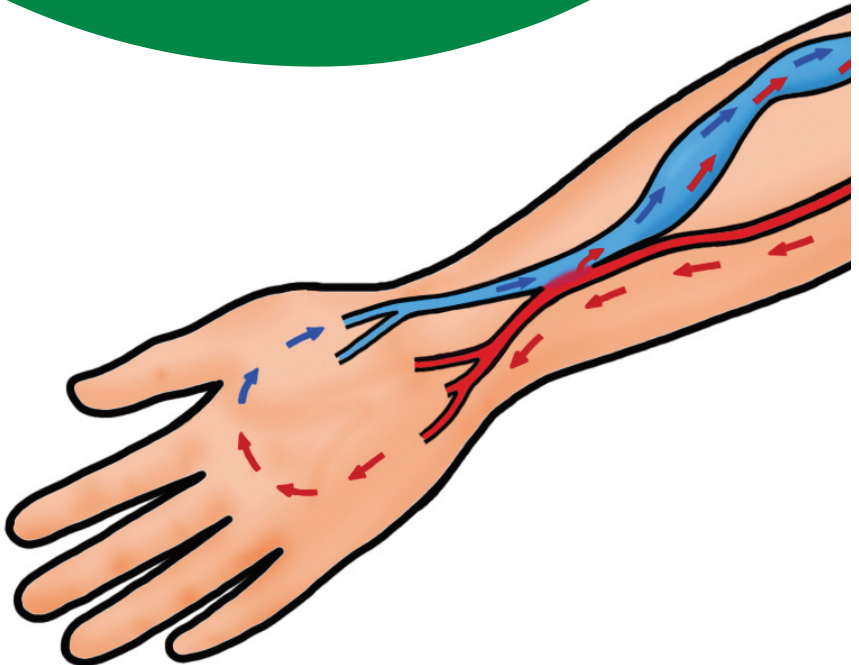


Fistula / Graft care

Information for patients



This leaflet is to help you understand why you may need a fistula or graft, how it is created and the care needed to prevent any complications.

Why do I need a fistula/graft?

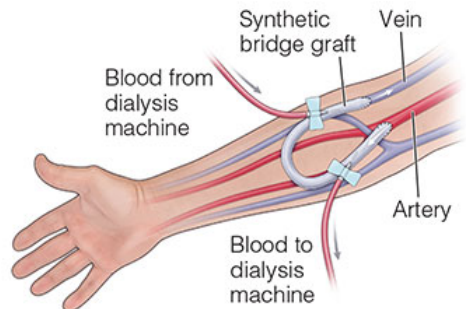
To carry out haemodialysis - a good, strong blood supply is needed to circulate from the body through the dialysis machine.

What is a fistula?

- A fistula is a direct connection between artery and vein.
- The blood from the artery goes straight into the vein which matures over 6-8 weeks and becomes bigger and firmer.
- The bigger and firmer vein enables two needles to be inserted. Blood can be taken out of the body, sent through the dialysis machine, and returned to the body via the second needle.
- The main advantage of having a fistula is that there is less infection risk than having a central venous catheter (CVC).
- A fistula can also provide better quality dialysis than a CVC.

What is graft?

A graft is similar to a fistula but a synthetic tube or artificial vein is used to connect the artery and vein. Sometimes arteries and veins cannot be connected directly.



The artificial vein will be used and the staff or patient will put needles into this artificial vein. Grafts are usually ready to use sooner than a fistula.

What happens next?

Following education by the Pre-Dialysis team in clinic, the Vascular Access Team will refer you to the vascular surgeon or to the Ultrasound Department where you will have a scan of your arms to determine the best location for the fistula to be formed. This will be your first appointment. The second appointment will be in the Pre-Assessment Clinic at St. James's University Hospital / Leeds General Infirmary.

Here you will complete all the necessary paperwork, blood tests, swabs and decolonisation required prior to your surgery.

The operation/surgery

This is usually performed as a day case at David Beevers Day Unit, St. James's University Hospital, Wards L26/L15 Leeds General Infirmary, Wharfedale Hospital or at Huddersfield Royal Infirmary. You will be asked to arrive on the ward at 07.15 hours in the morning. You might need to stay overnight if you have other medical problems or if you live alone.

The operation is normally performed under local anaesthetic, or under nerve block/ arm block, which numbs the whole arm.



Depending on the type of fistula you are having formed, the surgery usually takes between 45 & 90 minutes. Prior to this procedure you will be tested for MRSA and a topical treatment of decolonisation will be prescribed.

Where will my fistula be?

The most common sites for fistulas are at the wrist, elbow and upper arm. Your first fistula will be formed on your non dominant arm if suitable vessels are found on scan.

After discharge

Check the thrill/bruit of the fistula every 4 hours, by placing your first two fingers gently over the wound site or just above.

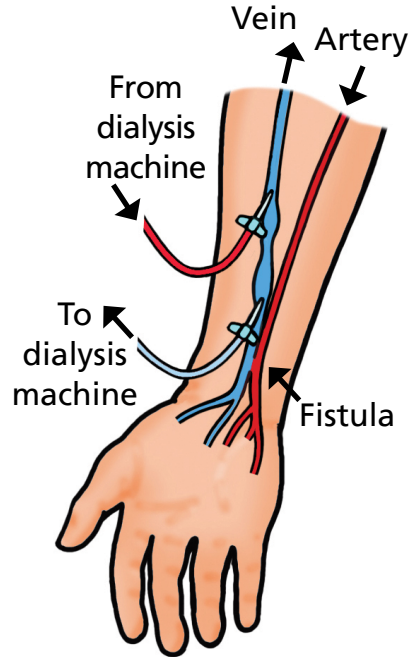
Thrill

Is the feeling of blood rushing through the fistula.

Bruit

Is the sound of the blood travelling through your fistula, it makes a whooshing sound.

- Keep arm elevated on at least 2 pillows until swelling has reduced.
- Keep your fistula dressing clean and dry to prevent infection?
- Keep your arm and hand warm to encourage blood flow



- Avoid any pressure on your arm or wrist as this may cause the thrill/buzz to stop or a clot to form inside. This includes:
 - Tight clothing
 - Wrist watches/ jewellery
 - Sleeping on your arm
- Avoid any heavy lifting for the first 2 weeks to allow healing to take place
- You will have a dressing covering the operation site; this will need to stay on for 48 hours and must be kept clean and dry.
- After 48 hours the dressing can be removed and you may shower, providing you pat the wound dry carefully.
- consider wearing a Fistula band- this will help others to identify that you have a fistula in place and states ***“NO BLOOD PRESSURE NO NEEDLES/ BLOODS”***



Fistula exercises

Once your stitches have been removed, if there were any, and the wound has healed (around 2 weeks), you can begin fistula exercises, as explained and demonstrated at your Pre-Assessment Clinic visit.

These exercises are intended to strengthen and dilate the blood vessels of your fistula arm, helping your fistula to mature. This makes it easier to insert the needles for dialysis.

Exercises:

- Open and close your hand squeezing on a soft ball.
- This should be for no more than 2 minutes.
- Repeat the exercises four times a day.

When can my fistula be used?

It usually takes between 6-8 weeks for a fistula to mature and be strong enough for dialysis. However, if complications occur such as stenosis/ narrowing it may take longer.

If you have a central venous catheter (CVC) in situ the staff will organise its removal once the staff can regularly cannulate your fistula or graft.

Maintaining skin health

The frequent use of antiseptic skin cleansers and tapes occurring at each dialysis can lead to a disruption in the normal barrier function of the skin. As a result skin can become itchy, sore, red, and flaky. This can increase your risk of developing a skin infection. In order to maintain skin health we recommend that you apply a non-perfumed moisturiser to the skin on your fistula arm each day.

Things to remember

Daily fistula checks:

Feel for thrill/buzz (should be present).

Check for signs of infection - redness, discharge/pus, pain, changes in size or appearance of arm/limb, swelling or puffy arm or fistula/graft, changes in colour (red, grey, blue) or cold hand, numbness, tingling or cold feeling in fistula/graft or arm/limb.



Contact your dialysis unit or ward J48 if you have any concerns.

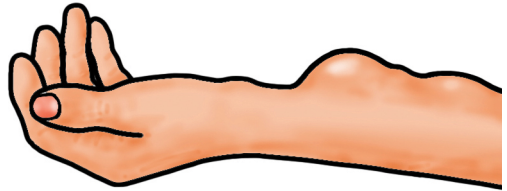
Do Not

- Allow blood samples to be taken from your fistula
- Have your blood pressure taken on your fistula arm
- Allow insertion of anything in your fistula arm including cannula/ venflon
- Obstruct the flow of blood -
 - Avoid wearing tight clothing or jewellery, including watches on this arm
 - Don't loop shopping bags over your fistula / graft arm
 - Avoid sleeping on your fistula/graft arm
 - Avoid carrying heavy loads on this arm
 - Avoid injury to the fistula/graft arm

Possible complications

A fistula or graft is the preferred vascular access for dialysis because there is less likelihood of problems. However, if a problem does occur you need to report this to the dialysis staff, so that they can act quickly.

- **Bruising or swelling:** This often occurs when the fistula/graft is new and is due to the dialysis needle piercing the fistula or graft wall allowing blood to leak into the tissue. All bruising or swelling should be reported to the dialysis staff.
- **Redness or heat:** Sometimes together with swelling and pain, can be signs of infection. Please contact the dialysis staff immediately.
- **Allergies:** If your fistula becomes red, itchy or sore it may be due to the application of creams, cleaning products or dressings, let your nurse or doctor know.
- **Aneurysm:** This is a swollen area that can occur over time due to the needles being put in the same area. Your fistula/graft will be assessed and whoever cannulates this will be encouraged to change needle sites to avoid this (rope ladder technique) or buttonhole to avoid this. If the skin becomes thin or shiny or you can see a pulse under the skin or a swollen area appears suddenly please tell the renal unit staff.



- **Steel syndrome:** This occurs because your hand is not receiving enough blood supply. When a fistula/graft is made, some of the oxygenated blood that would normally go to your hand is being diverted or “**stolen**” by the fistula/graft. Let the dialysis staff know if you experience pain, coldness or tingling in the fingers or hand on your fistula/graft arm.

If you wear a glove during your treatment the staff will ask to remove it to check for signs of Steel Syndrome.



- **Clotted fistula / Reduction in blood flow:** Inform the dialysis staff immediately if you cannot feel the usual buzzing over the fistula or if it weakens or you are unable to achieve your target blood flow during treatment.
- **Scab:** If a scab over your needle site does not heal quickly or gets larger let the dialysis staff know as this can lead to a risk of bleeding.
- **Bleeding during dialysis:** If blood starts to ooze around your needles during dialysis or it takes longer to stop bleeding at the end of treatment tell the dialysis staff immediately.
- **Bleeding at home:** Occasionally a fistula may start to bleed at home, if this happens it should stop quickly when pressure is applied.

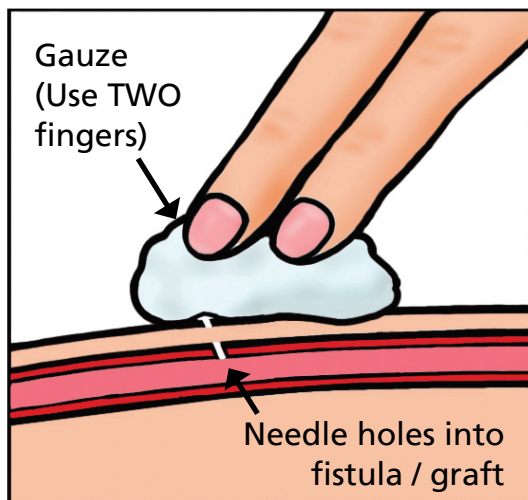
However, although this is very rare occurrence, you should know what to do if profuse bleeding occurs from your fistula or graft site unexpectedly between dialysis sessions.

This is a medical emergency

Apply firm pressure at the bleeding point.

Use gauze or two fingers. Do not use a large dressing: for example a towel as it may stop you applying enough pressure in the right place.

Get help from anyone who is around, the blood flow can be fast and make you feel faint so do not delay in alerting others.



Lie down

Elevate the bleeding arm or leg and ask someone to help by supporting your arm over your head. Check you are pressing in the right place.

If bleeding profusely call 999 immediately and report “excessive bleeding from fistula”, if it is a slow bleed and you cannot get it stopped call 999 after 30minutes.

Stay calm; bleeding can usually be stopped with enough pressure in the right place, however it may take more pressure than usual.

Inform the dialysis unit about any bleeding that happens after every session. You should attend hospital so your fistula can be checked by a fistula surgeon.

Contact Details

Pre-Dialysis Team (08:00-16:00 hours Monday - Friday)

- **Telephone: 0113 206 6719**

**Pre-Assessment / Vascular Access Team
(08:00-16:00 hours Monday - Friday)**

- **Telephone: 0113 206 7289**
- **Telephone: 0113 206 4112**
- **Telephone: 0113 206 7186**

J49 Male Renal Ward

- **Telephone: 0113 206 9149**

J50 Female Renal Ward

- **Telephone: 0113 206 9150**

J48 Dialysis Unit

- **Telephone: 0113 206 9148**

Your Dialysis Unit Contact Numbers

(Staff to add telephone numbers below)

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Developed by: Karen Baharvand, Clinical Educator - Renal Services
Produced by: Medical Illustration Services
MID code: 20220930_012/EP

LN004591
Publication date
12/2022
Review date
12/2025