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THE LOCATION

Aster
HOSPITAL
We'll Treat You Well

Mankhool, Kuwait Road, Al Mankhool - Dubai

📞 04 440 0500 🌐 asterhospitals.com 📱 [asterhospital](#)

DEPARTMENTS

Accident & Emergency • Anesthesiology • Cardiology • Clinical Nutrition
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DIALYSIS & AV FISTULA

How do I care for myself at home?



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Digital Version



FREQUENTLY ASKED QUESTIONS HOW DOES AN AV FISTULA HELP?

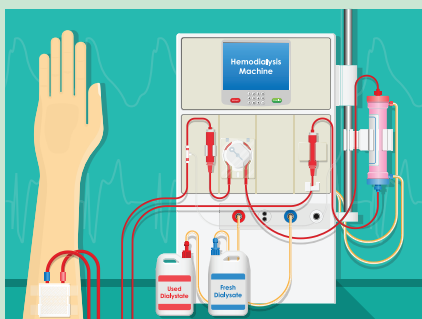
WHAT IS DIALYSIS?

• It is a method of treatment by which the blood in your body is purified; waste products and extra water is removed. This is a treatment to replace the function of kidneys in people with kidney failure.

WHY DOES ONE NEED DIALYSIS?

• When the kidneys are not able to purify blood and remove waste products in your blood through urine, accumulation of these waste products occur; this can be very dangerous. Dialysis removes these waste products from blood.

HOW IS DIALYSIS DONE?



• The blood from your body is removed and purified by an artificial kidney (Dialyser) and then pumped back to your body in a continuous cycle. The blood is drawn into a special circuit called dialysis

circuit which is passed into dialyser and handles by machine.

To remove, clean and return the blood we need to have a plastic tube called catheter inserted into blood vessels that have a large amount of blood flowing through them. Dialysis is done with the help of a machine.

WHY CAN'T YOU DO DIALYSIS DIRECTLY FROM THE VEINS SEEN THROUGH THE SKIN?

• The small veins on the limbs do not have enough blood flowing through them.

The dialysis process involves extra corporal circuit which includes non-reactive tubes which is going to drop the blood and circulated in the dialysed under strict aseptic precautions.

HOW IS AN AV FISTULA MADE?

• AV fistula is a surgical procedure by which an artery and a vein are joined together. The arteries carry oxygen rich blood from the heart to the other parts of the body and the veins carry blood back to the heart. By doing this operation we can make the vein develop into a blood vessel that can be used for dialysis.

HOW DOES AN AV FISTULA HELP?

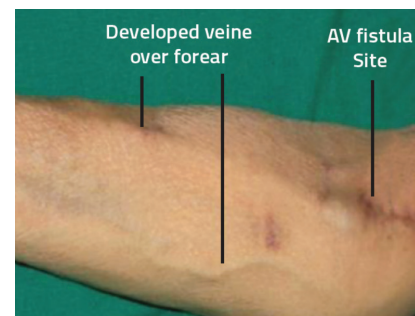
When a fistula is created, it directs more blood flow into the veins. The blood flow is likely to increase from 30-40ml/min to over300ml/min when the fistula is mature. This process also makes the vein thicker and able to tolerate the dialysis needles

WHAT IS FISTULA MATURATION?

• After the operation the veins have to go through some changes which results in fistula maturation. This includes an increase in the size and wall thickness of the vein and toughening of the vein wall. This process can take 6-8 weeks.

WHERE IS THE AV FISTULA CREATED ?

• The vast majority of fistulas are made in the arms and can be done under local anesthesia. The patient would be awake throughout the operation. The artery and the vein are connected together. Some fistulas are more complex and need anesthesia and bigger wounds.



CAN ALL AV FISTULAS BE USED FOR DIALYSIS?

• No, unfortunately all fistulas that are created cannot be used for dialysis. Some fistulas get blocked very soon after the surgery while others remain open but fail to mature. This is due to a number of factors. Some of the common reasons are :

- Small blood vessels which may never enlarge enough to be used for dialysis.
- If the heart pump is weak, the blood flow into the veins will never be enough.
- If the blood vessels have been damaged previously due to needles, these may not develop into good fistulas.
- There may be blocks in the arteries which do not allow enough blood to flow (especially in diabetics). The chances for failure of AV fistula is about 10 to 20% (nondiabetics) and in diabetics about 30%.

WHAT ARE THE ALTERNATIVES FOR A FISTULA ?

• Plastic tubes i.e. Catheters are an option

but have a higher risk of infection and blockage. If you do not have suitable blood vessels, your doctor may advise you the use of a plastic graft to be placed under the skin. However, the preferred option is always to use your own blood vessels rather than plastic material.

• Peritoneal dialysis is an option that you can discuss with your doctor.

IN THE BODY WHERE CAN FISTULAS BE MADE?

• The common areas are at the wrist and elbow. The site is decided based on the suitability and size of the blood vessels. The doctor will examine the blood vessels and may also ask for a special ultrasound doppler scan, if needed.

HOW LONG WILL THE AV FISTULA WORK?

• Unfortunately, not all fistulas keep working forever. Like any other part of the body it can be affected by disease and may get blocked or not function well enough.

WHEN SHOULD I GET A FISTULA MADE?

• The best time is at least 3 to 4 months before you start dialysis!

• If you are known to have worsening kidney function, it is better to have a working fistula ready well before dialysis starts so that you may avoid plastic tubes and their risks completely. The Nephrologist doctor is the best person to advice on this matter. If you have already started dialysis, it is best to get a fistula done at the earliest.