

## Renal (Haemodialysis) Unit Patient Information



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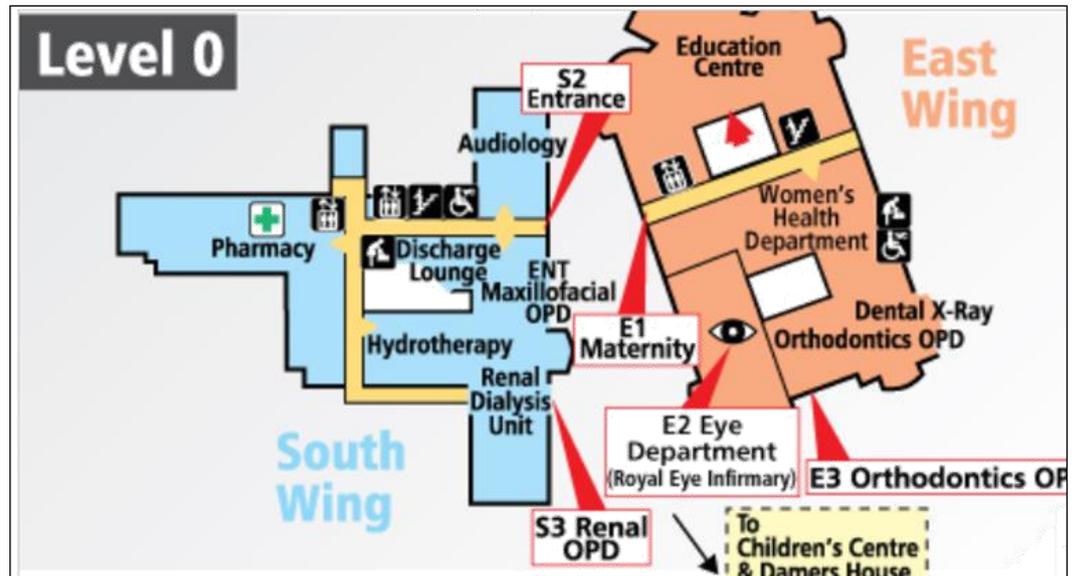
# Information

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## Renal Patient's Information Leaflet



### Opening hours:

Mon Wed Fri	7:00 – 23:30
Tue Thu Sat	7:00 – 23:30
Sunday	Closed

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Senior Sister  
Haemodialysis Unit

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## Haemodialysis overview

Dialysis is a treatment for severe kidney failure (also called renal failure, or end-stage renal disease). When the kidneys no longer work effectively, waste products and fluid build-up in the blood. Dialysis takes over a portion of the function of the failing kidneys to remove the fluid and waste.

It is generally possible to be put on a kidney transplant waiting list when kidney function is approximately 20 percent of normal. Patients with chronic kidney disease, and some with acute kidney injury, have a normal amount of urine, but the urine does not get rid of the body's waste products.

## Which type of dialysis is best?

Once dialysis becomes necessary, the patient (along with Renal Consultant) should consider the advantages and disadvantages of the two types of dialysis:

- Haemodialysis (centre or at home)
- Peritoneal dialysis (we will contact Kidney Care Team if you require information)

The choice between haemodialysis and peritoneal dialysis is influenced by a number of issues such as availability, convenience, underlying medical problems, home situation, and age. This choice is best made by discussing the risks and benefits of each type of dialysis with a healthcare provider. Patients with chronic kidney disease should also discuss the possibility of getting a kidney transplant with their physicians.

## When to start dialysis

The patient and the Renal Consultant will make the decision about when to start dialysis. The kidney function (as measured by blood and urine tests), overall health, nutritional status, symptoms, quality of life, personal preferences, and other factors impact the decision regarding the timing of initiation of dialysis. Dialysis should begin well before kidney disease has advanced to the point where life-threatening complications can occur.

## Preparing for haemodialysis

For patients with chronic kidney disease, preparations for haemodialysis should be made at least several months before it will be needed. In particular, the patient will need to have a procedure to create an 'access' several weeks to months before haemodialysis begins.

## Vascular access

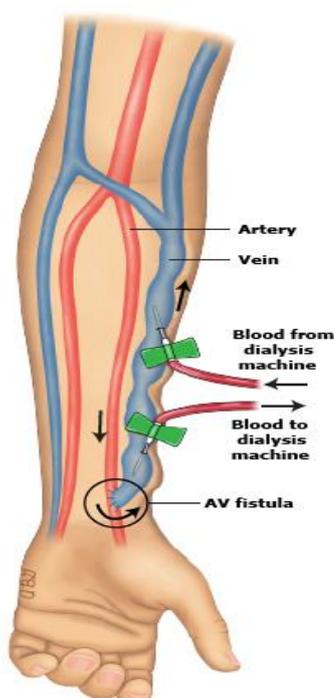
An access creates a way for blood to be removed from the body, circulated through the dialysis machine, and then returned to the body at a rate that is higher than can be achieved through a normal vein.

There are three major types of access: primary arteriovenous (AV) fistula, synthetic AV bridge graft, and central venous catheter.

### AV fistula

AV fistula is the preferred type of vascular access. It requires a surgical procedure that creates a direct connection between an artery and a vein. During dialysis, two needles are inserted into the access. Blood flows out of the body through one needle, circulates through the dialysis machine, and flows back into the access through the other needle.

AV fistula is usually created two to four months before it will be used for dialysis. During this time, the area can heal and fully develop or 'mature'.

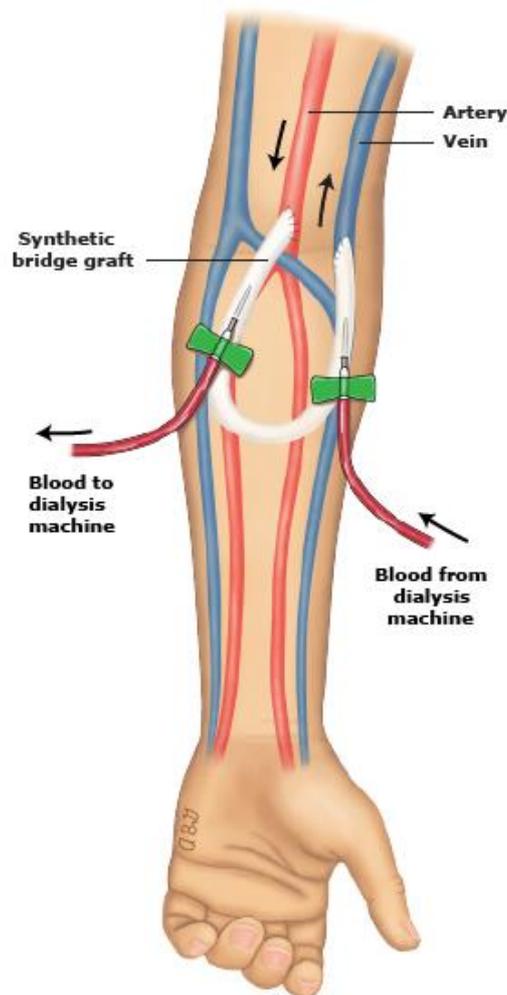


This illustration shows an AV fistula within a person's arm. An AV fistula is under the skin. A doctor makes an AV fistula by doing surgery to connect an artery directly to a vein. It is usually done in the lower arm but can be done in the upper arm. During haemodialysis, two needles are put into the access to remove and return blood to the body.

## Synthetic graft

Occasionally a patient's arm veins are not suitable for creating a fistula. In these cases, a surgeon can use a flexible rubber tube to create a path between an artery and vein. The graft sits under the skin and is used in much the same way as the fistula, except that the needles used for haemodialysis are placed into the graft material rather than the patient's own vein.

Grafts heal more quickly than fistulas and can often be used approximately two weeks after they are created. However, complications such as narrowing of the blood vessels and infection are more common with grafts than with AV fistulas.

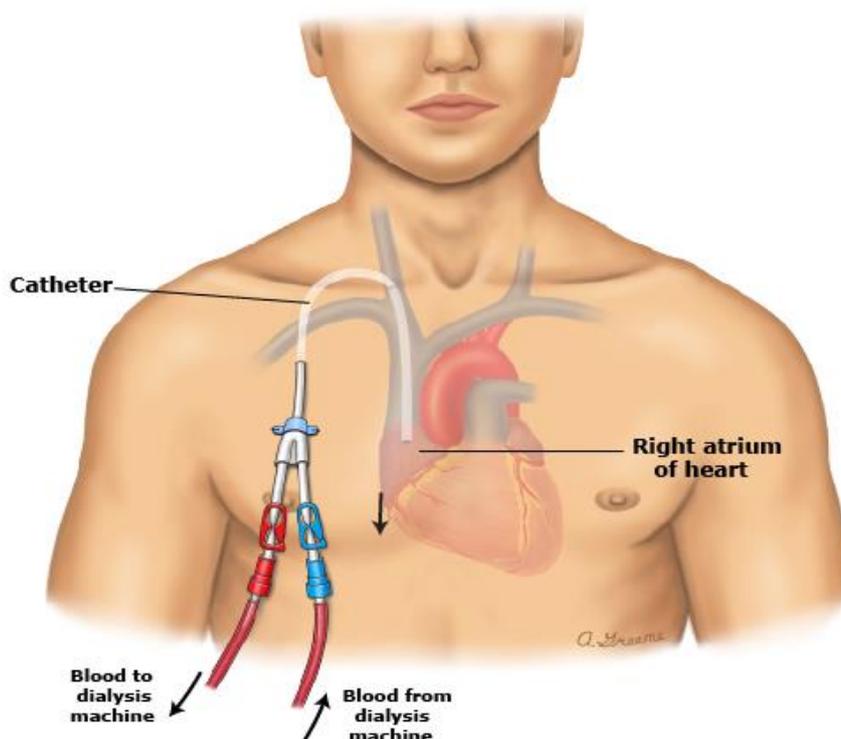


This illustration shows an AV graft within a person's arm. A graft is under the skin. A doctor makes a graft by undertaking surgery. He or she uses a flexible rubber tube to connect an artery to a vein. During haemodialysis, two needles are put into the graft to remove and return blood to the body.

## Central venous catheter

A central venous catheter uses a thin, flexible tube that is placed into a large vein (usually in the neck, under the skin). It may be recommended if dialysis must be started immediately and the patient does not have a functioning AV fistula or graft. This type of access is usually used only on a temporary basis. In some cases, however, there can be problems maintaining an AV fistula or graft, and the central venous route is used for long-term access.

Catheters have the highest risk of infection and the poorest function, compared with other access types; they should be used only if a fistula or synthetic graft cannot be maintained.



This illustration shows a central venous catheter, which is a thin, flexible tube. One end is put into a large vein, usually in the neck. The other end stays outside the body. During haemodialysis, the end outside of the body is connected to tubes from the dialysis machine.

## Dietary changes

Some patients will need to make changes in their diet before and during haemodialysis treatment. These changes ensure that you do not become overloaded with fluid and that you consume the right balance of protein, calories, vitamins, and minerals.

A diet that is low in sodium, potassium, and phosphorus may be recommended, and the amount of fluids (in drinks and foods) may be limited. A dietitian can help you to choose foods that are compatible with haemodialysis treatment.

## Location of Renal (Haemodialysis) Unit

Address: Dorset County Hospital NHS Trust  
Renal Unit (Haemodialysis)  
Entrance 3 South Wing 0  
Williams Avenue,  
Dorchester, Dorset  
DT1 2JY

Telephone: 01305 255345



Dialysis may be done in a hospital, a clinic associated with a hospital, or a freestanding clinic. In general, haemodialysis takes an average of four hours, and is done three times a week. The patient will be able to read or sleep during treatment, usually have access to a television. Patients are requested to bring in their own headphones. Eating, drinking, and visitors are usually restricted in a dialysis unit.

Adhering to the prescribed dialysis treatments can result in a significant improvement in your well-being, reduce symptoms during and between dialyses, and improve quality of life.

### Travel options

Patients are encouraged to be independent with travelling in and out to dialysis. Allocated parking space and free parking permit is available during dialysis in the hospital. Hospital transport is for medical need only.

# Haemodialysis monitoring

## Blood testing

Patients, who use haemodialysis, either at home or in the unit, will be monitored with blood tests to ensure that the time and type of dialysis treatments (called dialysis prescription) are optimal. Studies have shown that the correct dialysis prescription improves health, prevents complications, and prolongs survival. Blood testing is done at least once per month, and adjustments to the dialysis prescription may be made based upon the results of testing.

## Body weight monitoring

Because kidneys that are failing cannot remove enough fluid from the body, dialysis must perform this task. Accumulation of fluid between haemodialysis treatments can lead to complications. Most patients will be weighed before and after dialysis, and will be asked to monitor their weight on a daily basis at home.

## Caring for the access

It is important to take care of your access to prevent complications. Complications can occur even if you are careful, but are much less common if you take a few precautions:

- Wash the access with soap and warm water each day and always before dialysis. Do not scratch the area or try to remove scabs.
- Check the area daily for signs of infection, including warmth and redness
- Check that there is blood flow in the access daily. There should be a vibration (called a thrill) over the access. If this is absent or changes, notify member of staff. Sometimes, flow monitoring is done during the dialysis treatment using ultrasound (sound waves). The flow monitoring measures the speed of blood flow during dialysis treatment.
- Take care to avoid traumatizing the arm where the access is located; do not wear tight clothes or jewellery, carry heavy items, or sleep on the arm. Do not allow anyone to take blood or measure blood pressure on this arm.

## Side effects

Most patients tolerate haemodialysis well. However, side effects of haemodialysis can occur. Low blood pressure is the most common complication and can be accompanied by light-headedness, shortness of breath, abdominal cramps, muscle cramps, nausea, or vomiting.

Treatments and preventive measures are available for the discomforts that can occur during dialysis. Many of these side effects are related to excess salt and fluid accumulation between dialysis treatments, which can be minimized by carefully monitoring how much salt and fluid you consume. Also do not take your blood pressure tablets before coming in for your dialysis treatment.