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How do we classify kidney or renal failure?

The word "renal" refers to the kidneys. If one or both kidneys fail completely and the damage cannot be reversed, the condition is called renal failure or end-stage renal disease (ESRD). When this occurs, your kidneys can no longer filter wastes well enough to keep you healthy. Treatments for kidney failure include dialysis and/or transplantation.

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Why do kidneys fail?

Most kidney diseases attack the nephrons (tiny filtering units within the kidneys), causing them to lose their filtering capacity. Damage to the nephrons can happen quickly, often as the result of injury or poisoning. However most kidney diseases destroy the nephrons slowly and silently. Only after years or even decades will the damage become apparent. Most kidney diseases attack both kidneys simultaneously.

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What are the signs and symptoms of kidney failure?

**The following symptoms may be present:**

- fatigue (tiredness)
- frequent need to urinate, especially at night (which grows with time)
- itchy skin
- nausea
- shortness of breath
- erectile dysfunction (men have difficulty getting and/or sustaining an erection)
- water retention (swollen feet, hands, ankles)
- blood in the urine; and or
- protein in the urine

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I have chronic kidney failure

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I have acute renal failure

Chronic kidney disease, also called chronic kidney failure, describes the gradual loss of kidney function. Your kidneys filter wastes and excess fluids from your blood, which are then excreted in your urine.

When chronic kidney disease reaches an advanced stage, dangerous levels of fluid, electrolytes and wastes can build up in your body.

In the early stages of chronic kidney disease, you may have few signs or symptoms. Chronic kidney disease may not become apparent until your kidney function is significantly impaired.

Treatment for chronic kidney disease focuses on slowing the progression of the kidney damage, usually by controlling the underlying cause. Chronic kidney disease can progress to end-stage kidney failure, which is fatal without artificial filtering (dialysis) or a kidney transplant.

Acute kidney failure occurs when your kidneys suddenly become unable to filter waste products from your blood. When your kidneys lose their filtering ability, dangerous levels of wastes may accumulate, and your blood's chemical makeup may get out of balance.

Acute kidney failure can be fatal and requires intensive treatment. However, acute kidney failure may be reversible. If you're otherwise in good health, you may recover normal or nearly normal kidney function.

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What are my treatment options?

When the kidneys are no longer working effectively, waste products and fluid build up in the blood. Dialysis is a process of removing some of a person's blood, cleaning it, and then returning it to the person's body. Dialysis treatments may be used for patients who have become ill and have acute renal failure (temporary loss of kidney function), or for fairly stable patients who have permanently lost kidney function (stage 5 chronic kidney disease).

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What arrangements do I need to make to receive chronic dialysis?

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Doctor consultation

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Medication script from my treating doctor

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Medical aid approval or private funding

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Dialysis time slot

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Appointment with a nephrologist for a dialysis prescription

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There are two major types of dialysis:

**Haemodialysis:** A medical procedure to remove excess fluid and waste products from the blood and to correct electrolyte imbalances. This is accomplished using a machine and a dialyser, also referred to as an "artificial kidney".

**Peritoneal dialysis:** uses the lining of your abdominal cavity (the space in your body that holds organs like the stomach, intestines, and liver) to filter your blood. This kind of dialysis is needed daily hence the name of this treatment - continuous ambulatory peritoneal dialysis (CAPD). Peritoneal dialysis is not suited for all patients and criteria needs to be closely discussed together with your doctor.

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How does dialysis work?

Blood travels through dialysis blood lines to the dialyser, also known as the artificial kidney. The dialyser is made up of two compartments, blood and dialysate. Porous membranes inside the dialyser allow for the movement of waste products, electrolytes and water between compartments through a process of osmosis and diffusion. These exchanges continue over the prescribed dialysis session until a balance of electrolytes and effective removal of waste products is achieved.

Red and white blood cells and other important blood components are too large to fit through the pores in the membranes, but urea and salt flow through membranes into the sterile solution (dialysate) and are removed. This is achieved by processes of osmosis and diffusion.

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Where do we go from here?

Life Healthcare case managers will assist and guide you with the following process:

- Obtaining relevant medical aid forms.
- Ensuring completion of the forms by your treating specialist.
- Returning the forms and your latest blood test results to the medical aid.
- Obtaining an additional motivation by your nephrologist in the case of some specialised procedures such as continuous renal replacement therapy (CRRT).

**If you have a medical aid:** Your renal dialysis patients covered by a medical scheme should note that whilst every effort is made to obtain payment from your renal dialysis on your behalf, the responsibility for the payment of services rendered still remains with the guarantor. Any costs not covered by your medical scheme will have to be settled by the patient receiving treatment or medical aid guarantor. If you are unsure of any financial matter, please speak to one of our case managers at the hospital you are receiving treatment at. Please note that services provided by other medical practitioners and healthcare professionals are not included in the account for dialysis treatments and will be charged separately.

Please note that you will need a separate authorisation number for dialysis treatment; a hospital authorisation number will not provide authorisation.

**If you are paying privately:** Patients who are not covered by a medical scheme will be required to pay a deposit based on the estimated total costs of treatments delivered.

Please note that services provided by other medical practitioners and healthcare professionals are not included in the account for dialysis treatments and will be charged separately.

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Frequently asked questions:

**Is a renal diet important whilst undergoing dialysis treatments?**

As kidney function declines, protein waste and minerals become more difficult for the kidney to remove. The main nutrients limited in kidney diets include protein, phosphorus, potassium and sodium.

Not only will a good diet help you feel healthy, it can also help you avoid complications such as fluid overload, high blood potassium, bone disease, and weight loss. Keeping close track of your diet can also help you control other diseases such as diabetes and high blood pressure. Uncontrolled blood pressure and diabetes can worsen kidney disease and diminish any residual kidney function.

**What about infection control?**

It is very important that you follow the unit's strict hand washing and infection control programme. This will ensure the health of yourself, your families and other fellow dialysis patients.

**What about my medication?**

Chronic patients required to take any medication before, during or after dialysis will be required to bring their own medication from home. Please inform your dialysis nurse of such instances so as to ensure that treatment is administered appropriately, recorded and supervised.

For convenience, medication such as erythropoietin (EPO) and iron, can be stored and refrigerated at your dialysis facility. Please confirm the process used for receiving and storing of EPO with the unit managers. The cold chain should be maintained even during transportation between your home and the dialysis facility.

**What are the treatment times?**

These vary between the different facilities and will be discussed with you prior to your first dialysis session. Your frequency of treatment and duration of each session will be determined by your facility nephrologist or physician pending individual clinical status and kidney function.

For purposes of understanding how dialysis sessions work, the most common treatment programme to achieve adequate clearance are four hour sessions, three times a week. You will be required to select one slot that comprises 2-3 sessions per week.

**For example morning (am) sessions may run:**

- Slot 1 - 06:00-10:00 on a Monday, Wednesday and Friday or
- Slot 2 - 06:00-10:00 on a Tuesday, Thursday and Saturday

**For example afternoon (pm) sessions may run:**

- Slot 3 - 11:00-14:00 on a Monday, Wednesday and Friday or
- Slot 4 - 11:00-14:00 on a Tuesday, Thursday and Saturday

For your convenience selected facilities do provide evening sessions. This will have to be discussed with your facility unit manager and will depend on the availability of evening slots.

**May I have visitors?**

Visitors are discouraged from entering treatment areas for maintenance of strict infection control measures. Visitors are encouraged to make use of waiting rooms.

**What will happen to my valuables?**

We recommend that you do not bring valuables such as jewellery, or large sums of money with you. Dialysis facilities are not equipped with safes and whilst every effort is made to protect patient's belongings, we cannot take responsibility for your belonging or the loss thereof.

**Tell me more about your facilities and services**

**Equipment** - latest technology dialysis machines and comfortable dialysis chairs

**Medical services** - easy access to hospital specialist / physicians / X-ray department / Laboratory facilities

**Public phones** - facility telephones are not available for personal use. If there is any emergency, the nursing staff will contact your family.

**Smoking** - all facilities are strictly non-smoking facilities and as such, smoking is only allowed in designated smoking areas.

**How do you monitor service delivery?**

Your feedback with regard to our facilities and services are important to us. Please share your suggestions, concerns, compliments or complaints with us. Our managers will also make regular rounds. As your comfort and care are important to us, we encourage you to speak freely with them.