

Fact sheet

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Nutrition and Kidney Disease

Managing what you eat and drink when you have kidney disease can be a challenge but can have a positive influence on how you feel and the treatments you might need. It is important to recognise that as kidney disease progresses your dietary needs will more than likely change. It is also important to recognise that every person with kidney disease is different and has different food preferences and dietary needs.

An Accredited Practising Dietitian experienced in kidney disease is the best person to speak to about what food and drinks are best for you. The dietitian will assess what you are currently eating and advise if changes are needed.

Dietary assessment includes review of your intake of energy and important nutrients such as:

- protein
- sodium/salt
- potassium
- phosphate
- fluid
- fat
- carbohydrate

Advice is given on a personal basis, taking into account what you like to eat, how you are feeling, your age, your gender, lifestyle, weight, muscle size, health status and blood test results. You may find that initially the suggested changes might be small, but as kidney disease progresses more significant changes may be required.

Things you can do to get the most out of your dietitian appointment:

- write down what you eat for a few days and bring it with you to your appointment
- bring your medication list with you
- if someone else normally cooks for you - bring them with you to the appointment
- start a list of questions that come to mind before your appointment
- organise regular follow up appointments to monitor your own progress
- ask if they can provide an individual meal plan or guide

Important components of a healthy diet

Energy

Just like your car needs petrol, your body needs fuel. Getting the right amount of energy (kilojoules or calories) is important to your overall health and well-being as well as controlling your body weight.

Carbohydrate and fat are the body's main energy sources:

- if protein has been restricted in your diet, your energy needs may be met by increasing your intake of good fats and carbohydrates.
- carbohydrates come from foods such as breads, cereals, rice, pasta, noodles and grains as well as fruit and vegetables.

- choose 'good fats' such as polyunsaturated and/or monounsaturated found in olive, canola and sunflower oil.

Important components of a healthy diet

Protein

Getting the right amount of protein is important to your overall health and everyone's protein requirements are different. Your body needs the protein for:

- building muscles
- repairing tissue
- fighting infections

However, if you have kidney disease it is often important to control the amount of protein-rich foods you eat to minimise waste build up. Protein requirements also change when you are on dialysis, and should be discussed with your dietitian.

Protein comes from:

- animal foods including eggs, fish, meat, chicken
- dairy foods such as cheese, milk and yoghurt
- plant foods like nuts, peanut butter, lentils, baked beans, bean soup mix, bean salad mix and chickpeas also contain protein, but are sometimes less suitable because of potassium and phosphorus content

Phosphate

Phosphorus is a mineral found naturally in food. Along with calcium, phosphorus helps to keep your bones healthy and strong.

Controlling dietary phosphorus is important at all stages of kidney disease. In many cases reducing protein intake will also reduce phosphorus intake. Sometimes phosphate binder medications are also needed to reduce the amount of phosphate that reaches the bloodstream.

Phosphate binders work in your gut by binding to the food and removing some of the phosphate through your bowel movements. For this reason it is very important to take phosphate binders when eating. A dietitian can help to guide you how best to take phosphate binders with your meals.

See the *Calcium and Phosphate Balance with Kidney Disease* fact sheet for more information.

Sodium (salt)

Sodium is a mineral found naturally in foods. It is also commonly added to packaged and processed foods. It affects the amount of fluid that your body retains (holds).

Too much sodium and fluid may cause:

- high blood pressure
- swelling of ankles, feet, hands and puffiness under the eyes
- shortness of breath
- increased protein in urine

Eating a lot of sodium also makes you thirsty, which becomes even more important when urine output slows down (usually after starting dialysis).

Typically foods that have a lot of sodium include:

- seasonings including season-all, lemon pepper, garlic salt
- sauces like soy, fish, black bean, teriyaki and ready made pasta sauce
- canned foods, dried foods and frozen foods
- processed meats like ham, bacon, sausage, packaged deli meats
- snack foods like chips, nuts and crackers
- stock mixes and packaged soups
- take-away foods
- cereals and baked goods

See our *Salt and Your Kidneys* fact sheet for more information on reducing sodium in your diet.

Potassium

Nearly all foods contain some potassium. Many healthy foods like fruits, vegetables and dairy are high in potassium. If you have kidney disease your intake of these foods often needs to be controlled. This may mean avoiding some fruits and vegetables altogether, or just reducing the amount of high potassium foods you consume. It is important to get advice from a dietitian on how best to include foods from all food groups to maintain an overall healthy, low potassium diet.

The amount of potassium you should eat when you are on dialysis will depend on which type of dialysis you choose. It is more common to need to restrict your potassium intake if you are having haemodialysis. In fact, if you are having peritoneal dialysis, you may have to increase your potassium intake. Some people also need to take medications to control the amount of potassium in their blood.

Fluid

The amount of fluid intake varies for different stages of kidney disease. Some people need to drink large amounts of fluids but others may need to limit their fluid intake. Your suggested fluid intake will depend on your urine output, fluid build-up and blood pressure. Urine output usually drops off the longer you are having dialysis. As this happens fluid intake should be adjusted. Remember that fluid-type foods need to be included in your fluid allowance.

Fluids include:

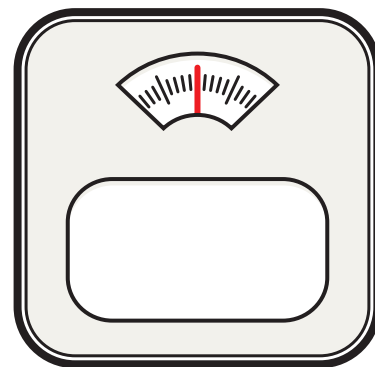
- water and ice cubes
- tea, coffee, juices, soft drinks, milk and milk products
- gravy, sauces and soups
- ice cream, jelly, custard and yoghurt
- Beer, wine, spirits and alcoholic beverages

Staying at a healthy weight

Maintaining a healthy weight can make it easier to manage your health. Some people with kidney disease do not feel like eating or have difficulty eating enough food to stay healthy. Malnutrition can develop when food intake is poor and the body does not get the right amount of the vitamins, minerals and other nutrients it needs. This is more common for people who are getting close to needing dialysis, but it can also persist when dialysis starts.

It is very important to try to stick to the eating plan your dietitian suggests even if you do not feel like eating. Tell your doctor or dietitian if you are losing weight that is not planned, or have any concerns about your diet.

Weight gain can also be a serious problem. It can be harder to gain access to your veins for dialysis if you are overweight. Being overweight may also mean you are not suitable for a transplant operation. If weight gain is a problem your dietitian can assist you with a kidney-friendly weight loss eating plan.



THINGS TO REMEMBER

- Every person with kidney disease is different and has different food preferences and dietary needs.
- An Accredited Practising Dietitian is the best person to talk to about diet. They can provide advice that is specific to you.
- Managing what you eat and drink when you have kidney disease can influence how you feel and what treatments you may need.

What does that word mean?

Accredited Practising Dietitian - A person who is professionally qualified to give practical diet and nutrition advice.

Carbohydrate - A macronutrient. Carbohydrates are the body's main energy source and come from mostly grain foods, fruit, vegetables and dairy products. Sugar is also a type of carbohydrate but should be limited from the diet.

Dialysis - A treatment for kidney failure that removes waste products and excess fluid from the blood by filtering the blood through a special membrane. There are two types of dialysis; haemodialysis and peritoneal dialysis.

Haemodialysis - A treatment for kidney failure. Your blood is pumped through special tubing to a haemodialysis machine. The machine acts like a kidney, filtering waste products from your blood before returning it to your body.

Malnutrition - Lack of proper nutrition, which may be caused by not having enough to eat, not eating enough of the right foods, or when the body is unable to effectively use the food that you do eat.

Monounsaturated - A 'healthy fat' commonly found in plant-based foods such as olive oil, canola oil, nuts and seeds.

Peritoneal dialysis - Treatment for kidney failure during which dialysis fluid is moved in and out of your peritoneal cavity to remove wastes and fluid from your blood.

Phosphate - A mineral that, together with calcium, keeps your bones strong and healthy. Too much phosphate causes itching and pain in your joints, such as knees, elbows and ankles. When your kidneys are not functioning properly, high levels of phosphate accumulate in your blood.

Polyunsaturated - A 'healthy fat' commonly found in plant based foods containing omega-3 and omega-6 such as oils, nuts, seeds, fish and legumes.

Transplant - A medical operation in which an organ or tissue is removed from the body of one person (the donor) and put into the body of another person who is very ill (the recipient). Organs that are suitable for donation include kidneys, heart, lungs, liver, intestines and pancreas. Tissues that are suitable for donation include heart valves and tissues, bone and tendons, skin, and eye tissue.

One of a person's kidneys can be transplanted while they are alive, but most other transplants are donated from a deceased person who has agreed to donate their organs and or tissues after their death.

Urine output - The amount of urine being produced by your kidneys. When kidneys start to fail, they produce less urine, which can lead to excess fluid in your body.

For more information about kidney or urinary health, please contact our free call the Kidney Helpline on 1800 454 363.

Or visit our website kidney.org.au

This is intended as a general introduction to this topic and is not meant to substitute for your doctor's or Health Professional's advice. All care is taken to ensure that the information is relevant to the reader and applicable to each state in Australia. It should be noted that Kidney Health Australia recognises that each person's experience is individual and that variations do occur in treatment and management due to personal circumstances, the health professional and the state one lives in. Should you require further information always consult your doctor or health professional.



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