

NUTRITION AND KIDNEY FAILURE

When you have chronic kidney disease, diet can be an important part of your treatment. Your recommended diet may change over time if your kidney condition or medical treatment changes. Many tests are done to monitor your nutritional health. An Accredited Practising Dietitian experienced in managing kidney disease can help plan your meals so that you eat the right foods in the right amounts.

Things that are important for your diet include:

- Getting the right amount of energy and protein from food
- Staying at a healthy body weight
- Controlling important nutrients in your diet such as:
 - Sodium
 - Potassium
 - Phosphorus
 - Calcium
 - Fluids

POINTS TO REMEMBER

- Your nutritional plan needs to be personalised and based on your kidney function.
- It can be difficult to meet your vitamin requirements so your doctor may prescribe a supplement
- Ask questions until you understand your diet
- For greater accuracy you may need to measure foods and fluids with a cup or scale
- Take your medication as prescribed
- Organise regular reviews and follow-up with your dietitian
- Follow your trends in body weight, blood pressure and blood values
- Inform your doctor or Accredited Practising Dietitian if you are losing weight or have any concerns about your diet
- Following the suggested nutritional plan may not cure your kidney problem but it can help reduce some of the symptoms and improve your general feeling of well-being

DOES A RECOMMENDED DIET CHANGE?

Your recommended diet may change depending on your kidney function and test results including blood tests.

You may need to change your salt, protein, phosphate, potassium or fluid intake if these are causing problems, however your Accredited Practising Dietitian will discuss this with you if required. Some people lose nutrients in their urine so have to take supplements. Only take supplements or medications that are recommended by your doctor. People with kidney transplants have a much less restricted diet.



Your eating plan has to be designed by your health care team with your special needs in mind.

WHAT ABOUT ENERGY?

Getting enough energy (kilojoules or calories) is important to your overall health and well-being. Energy is found in all the foods you eat. Food is important because it:

- Gives your body fuel.
- Helps you stay at a healthy weight.
- Helps your body use protein for building muscles and tissues.

Staying at a healthy weight is also important. Some people may need to gain weight or remain at their current weight. Your Accredited Practising Dietitian can tell you how to achieve and keep your weight at a healthy level.

WHAT ABOUT PROTEIN?

Getting the right amount of protein is important to your overall health and affects how well you feel. Your body needs the protein for:

- building muscles
- repairing tissue
- fighting infections

You may need to follow a diet with controlled amounts of protein. This can help regulate the amount of waste in your blood and increase the life of your kidneys.



If you are on dialysis, you have increased needs for protein. Your doctor and Dietitian can discuss the right types and amounts of protein for you.

Protein comes from:

- Animal-based products including eggs, fish, meat, chicken, cheese, milk and other dairy foods
- Some plant-based products including nuts, peanut butter, lentils, baked beans, bean soup mix, beans salad mix, chickpeas and hummus dip

WHAT ABOUT SODIUM (SALT)?

Sodium intake is linked to high blood pressure and risk of declining kidney function. You may need to limit the amount of sodium in your diet. Sodium is a mineral found naturally in foods. It is found in large amounts in table salt and foods with added salt. Even if you don't use salt in cooking or at the table, your diet can still be high in sodium because sodium is found in many processed foods.

Your Accredited Practising Dietitian can show you how to read food labels so that you can choose foods lower in sodium when you shop. Generally, foods that have a lot of sodium include:

- Salty seasonings like soy sauce, teriyaki sauce and garlic or onion salt
- Most canned foods and some frozen foods
- Processed meats like ham, bacon, sausage and cold cuts
- Salted snack foods like chips and crackers
- Most restaurant and take-away foods
- Canned or dehydrated soups like packaged noodle soup

Salt substitutes are often high in potassium and should not be used without consulting your doctor or Accredited Practising Dietitian.

Here are some tips for cutting down on sodium:

- Limit processed and convenience foods, like those listed above
- Don't add salt to your cooking
- Leave the salt shaker off the dining table
- Use fresh ingredients in your cooking
- Try fresh or dried herbs and spices instead of table salt to enhance the flavour of foods
- Add pepper or lemon juice for flavour

WHAT ABOUT POTASSIUM?

Potassium is an important mineral in the blood helping your muscles and heart to work properly. Too much or too little potassium in the blood can be dangerous. You may need to limit the amount of high-potassium foods. Some people also need to take medications to control the amount of potassium in their blood. Nearly all foods contain some potassium. Your Accredited Practising Dietitian can help you plan a diet to give you the right amount of potassium. See the '*Back On the Menu*' book for reduced potassium recipe ideas if applicable to you.



Potassium is found in large amounts of fruits and vegetables such as:

- Potato, sweet potato, pumpkin
- Tomato, avocado, beans (i.e baked beans, soy beans) and lentils
- Banana, custard apple, stone fruits such as nectarines
- Dried fruit, vegetable juice and olives

WHAT ABOUT PHOSPHATE AND CALCIUM?

Phosphate and calcium are minerals found in your blood and bones. They help to keep bones strong and healthy. With chronic kidney disease, your kidneys may not remove enough phosphate from your blood. This causes the level of phosphate in your blood to become too high. A high blood phosphate level may cause you to itch and lose calcium from your bones. Your bones can become weak and may break easily. Avoiding large amounts of foods high in phosphate will help lower your blood phosphate level.

Phosphate is found in large amounts in:

- Dairy products such as milk, cheese, yoghurt and ice cream
- Dried beans and peas such as kidney beans, split peas and lentils
- Nuts and peanut butter
- Drinks such as cocoa, beer and cola drinks

Your doctor may prescribe a medication called a phosphate binder to take with your meals and snacks containing phosphate. This is given to lower the amount of phosphate absorbed from the food you eat. Phosphate binders are taken with food and act by trapping the phosphate in the gut before it has a chance to move into the blood. To work properly, phosphate binders should be taken just before each meal or snack which contains high phosphate foods. Your Accredited Practising Dietitian can assist you to match your prescribed phosphate binders to your meal plan.

Blood calcium levels are balanced using medications that control the amount of calcium taken from the food. Calcitriol is active Vitamin D and it helps to absorb calcium into the blood from the gut. Take only the supplements or medications recommended by your doctor or Accredited Practising Dietitian.

WHAT ABOUT FLUIDS?

Fluids are any foods that are liquid at room temperature including ice cream, yoghurt and ice cubes. Fluid is also contained in food like cooked pasta and rice, salad ingredients, soup and watermelon.

If your fluid levels are too low, dehydration can cause low blood pressure. For people with a fistula, low blood pressure may cause the blood flow in your fistula to stop. If your fluid levels become too high, your blood pressure can increase causing fluid to build up in your lungs and breathing problems may occur. Proper management of fluid levels helps to maintain a healthy blood pressure and prevent clotting of your fistula.



Your health care team will let you know if you need to limit fluids and how much fluid you can have each day.

For more information about kidney health or this topic, please contact Kidney Health Australia: Kidney Information Line (freecall) on 1800 4 543 639 or visit website www.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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- TTY users phone 1800 555 677 then ask for 1800 454 363
- Speak and Listen users phone 1800 555 727 then ask for 1800 454 363
- Internet relay users - www.relayservice.com.au - "Make an internet relay call now" then ask for 1800 454 363