

## **Nutrition and Chronic Kidney Disease**

When you have chronic kidney disease, diet is an important part of your treatment plan. Your recommended diet may change over time if your kidney disease gets worse. A number of tests should be done to "keep tabs" on your overall nutritional health. Your doctor can also refer you to a registered dietitian who will help you plan your meals to get the right foods in the right amounts. This booklet will tell you about some things that are important to your diet including:

- getting the right amount of calories and protein
- other important nutrients in your diet
- sodium
- phosphorus
- calcium
- potassium
- fluids
- vitamins and minerals
- staying at a healthy body weight
- handling special diet needs
- diabetes
- vegetarian diets
- how your nutritional health is checked
- other resources that can help you.

This booklet has been written for adults with chronic kidney disease who are not on dialysis and have not received a kidney transplant. The information is based on recommendations developed by the National Kidney Foundation's Kidney Disease Outcomes Quality Initiative to help your doctor provide the best care for you. If you are already receiving hemodialysis, see the National Kidney Foundation booklet Nutrition and Hemodialysis. If you are a peritoneal dialysis patient, see Nutrition and Peritoneal Dialysis. If you have received a kidney transplant, see Nutrition and Transplantation.

### **Your Changing Diet**

As a patient with chronic kidney disease, your recommended diet may change over time, depending on how much kidney function you have. Your glomerular filtration rate, or GFR, is the best way to track your level of kidney function. Your doctor can estimate your GFR from the results of a simple blood test for creatinine along with your age, sex and body size. If your kidney disease progresses, and your GFR continues to decrease, the amount of protein, calories and other nutrients in your diet will be adjusted to meet your changing needs. If dialysis or a kidney transplant is needed eventually, your diet will be based on the treatment option you choose. Your doctor can refer you to a registered dietitian who will explain the changes you need to make in your diet and help you choose the right foods.

### **Getting the Right Amount of Calories**

Getting enough calories is important to your overall health and wellbeing. Calories are found in all the foods you eat. They are important because they:

- give your body energy
- help you stay at a healthy weight
- help your body use protein for building muscles and tissues.

Because your recommended diet may limit protein, you may also be cutting down on an important source of calories. As a result, you may need to get extra calories from other foods. Your doctor can refer you to a registered dietitian who will help you plan your meals to get the right amount of calories each day. Your dietitian may recommend using more simple carbohydrates like sugar, jam, jelly, hard candy, honey and syrup. Other good sources of calories come from fats such as soft (tub) margarine, and oils like canola or olive oil, which are low in saturated fat and have no cholesterol. You should talk with your dietitian about the best way to get the right amount of calories and keep your blood sugar in control if you have diabetes.

Maintaining a healthy weight is also important. People who have chronic kidney disease often need to gain weight or remain at their current weight. If you need to lose weight, your dietitian will teach you how to lose it slowly and carefully without risking your health.

#### Steps to Take

- Ask your doctor about a referral to a registered dietitian who specializes in diets for kidney patients.
- Ask your dietitian to help you plan meals with the right amount of calories.
- Keep a diary of what you eat each day. Show this to your dietitian on a regular basis.
- Ask your doctor and dietitian what your ideal body weight should be, and weigh yourself each day in the morning.
- If you are losing too much body weight, ask your dietitian how to add extra calories to your diet.
- If you are slowly gaining too much weight, ask your dietitian for suggestions on how to safely reduce your daily calorie intake and increase your activity level.
- If you gain weight rapidly, speak to your doctor. A sudden increase in weight, along with swelling, shortness of breath and a rise in your blood pressure may be a sign that you have too much fluid in your body.

#### **Getting the Right Amount of Protein**

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

- building muscles
- repairing tissue
- fighting infections.

Your doctor may recommend that you follow a diet that has controlled amounts of protein. This may help decrease the amount of wastes in your blood and may help your kidneys to work longer. Protein comes from two sources. You will need to get some protein each day from both of these sources:

- Animal sources, such as eggs, fish, chicken, red meats, milk products and cheese.
- Plant sources, such as vegetables and grains.

#### Steps to Take

- Ask your dietitian how much protein you need to eat each day.
- Show your daily food diary to your dietitian, and ask if you are eating the right amount of protein.

#### **Other Important Nutrients in Your Diet**

To feel your best each day, you may need to change the amounts of some of the following nutrients in your diet. Your dietitian will help you plan your meals to get the right amounts of

each.

### **Sodium**

Kidney disease, high blood pressure and sodium are often related. Therefore, you may need to limit the amount of sodium in your diet. Your doctor will let you know if you need to cut back on sodium. If you do, your dietitian can teach you how to select foods that are lower in sodium. Learn to read food labels so you can make lower sodium choices when you shop for foods. Sodium is a mineral found naturally in foods. It is found in large amounts in table salt and in foods that have added table salt such as:

- 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-out foods
- canned or dehydrated soups (like packaged noodle soup).

You may need to limit the use of salt substitutes that are high in potassium. Speak to your doctor and dietitian about this.

### **Calcium**

Calcium is a mineral that is important for building strong bones. However, foods that are good sources of calcium are also high in phosphorus. To keep your calcium and phosphorus levels in balance and to prevent the loss of calcium from your bones, you may need to follow a diet that limits phosphorus-rich foods and take phosphate binders. Your doctor may also ask you to take calcium supplements and a special prescription form of vitamin D. Take only the supplements or medications recommended by your doctor.