

## **WHY A SPECIAL DIET?**

Your kidneys normally remove waste products and extra fluid from your blood which come from the foods you eat and liquids you drink. With reduced kidney function, some of the waste products and extra fluid remain in your blood and increases the workload of your kidneys, which may lead to total kidney failure. However, by eating a proper diet, you may be able to slow down this process.

You can help control the buildup of waste products and fluid in your blood by following a proper diet and, therefore, decrease the workload of your kidneys. This diet may also help slow down the loss of kidney function. If you are on dialysis, you will lose a lot of your nutrients and will need to include higher amounts of protein and other nutrients in your diet. You will be advised to seek the guidance of experts if possible to plan the diet.

**PROTEIN:** Your body uses the protein in the foods you eat for growth, building muscles and repairing tissue. If you take in more protein than your body can use, the waste product urea is formed. If your kidneys are not functioning up to par, they may not be able to get rid of the urea. You may need to reduce the amount of protein you eat to avoid buildup of urea in your body. When you are on dialysis, you will need to increase the amount of protein you eat because dialysis removes some protein from your system.

There are two types of protein in food:

### **High Quality Protein:**

- Cannot be made by the body;
- Is needed every day in our diet;
- Is found in poultry, meat, seafood, eggs, milk, cheese and other dairy products.

Rule of thumb for the amount of high quality protein contained in different foods:

- meats: 7 grams per ounce;
- cheese: 7 grams per ounce;
- milk: 1 gram per ounce, 8 grams per serving.

### **Low Quality Protein:**

- Can be made by the body;
- Is found in foods from plant sources such as breads, cereals, other starches and grains, and fruits and vegetables (kidney and like beans are considered low quality protein, but mixed properly with other foods can become high quality protein).

Rule of thumb for the amount of low quality protein contained in different foods:

- starches: 3 grams per serving;
- vegetables: 2 grams per serving.

**SODIUM:** Sodium is an element which can be used to regulate blood pressure and fluid retention. High blood pressure, kidney disease and sodium are often related.

Sodium is found in almost all of our foods, but we obtain most of our intake from salt in preserved and canned foods and salt added to food at the table or in cooking.

To reduce sodium in your diet:

- eliminate the amount of salt in cooking and do not use salt at the table;
- avoid high salt food such as processed meats (cold cuts, bacon, ham, sausage, hot dogs), canned soups, canned vegetables and salty snacks;
- avoid convenience foods and fast foods;

- Read labels.

**POTASSIUM:** Potassium is an element found in muscles and red blood cells and is necessary for the proper functioning of the heart. The amount needed by the body will vary and depends upon body size, kidney function, and prescribed medications.

Potassium is found in many foods. Foods that are high in potassium are:

- Fruits: Orange, grapefruit, prune juices and nectars, banana, apricots, honeydew, cantaloupe, nectarines, peaches, tangerines, kiwi, all dried fruits.
- Vegetables: artichokes, pinto, kidney and lima beans, beets, beet greens, broccoli, Brussels sprouts, cabbage, collard greens, Swiss chard, kale, mushrooms, mustard greens, all potatoes\*, spinach, acorn, butternut and winter squash, tomatoes (and sauce, paste, juice), pumpkin, yams, zucchini.
- Breads, cereals, starches: bran cereals, Grape Nuts, Fruit & Fiber, fortified oat flakes, wheat germ, rolled oats, whole grain breads, dark or pumpernickel bread, flavored instant cooked cereals.

\*To reduce potassium in potatoes: cut peeled potatoes into small pieces, soak them at least two hours in a large amount of warm water, drain, and cook.

**PHOSPHORUS:** Phosphorus is an element that combines with oxygen and calcium to help build bones. If your kidneys are not able to remove excess phosphorus, the level of phosphorus in your blood may become too high. A high blood phosphorus level may cause you to lose calcium from your bones. This may weaken your bones and cause them to break easily. Eating fewer foods that are high in phosphorus will help control the phosphorus in your blood.

Foods high in phosphorus are:

- dairy products such as milk, cheese, pudding, yogurt and ice cream;
- dried beans and peas such as kidney beans, split peas and lentils;
- nuts and peanut butter;
- Beverages such as cocoa, beer, and cola soft drinks.

**CALORIES:** Calories are very important for giving you energy. Lowering your intake of protein as a pre-dialysis kidney patient will give you fewer calories; therefore, you will need to compensate for this loss. Your renal dietitian will help you find replacement calories. This might include adding fat and sweets which you may have previously been asked to limit.