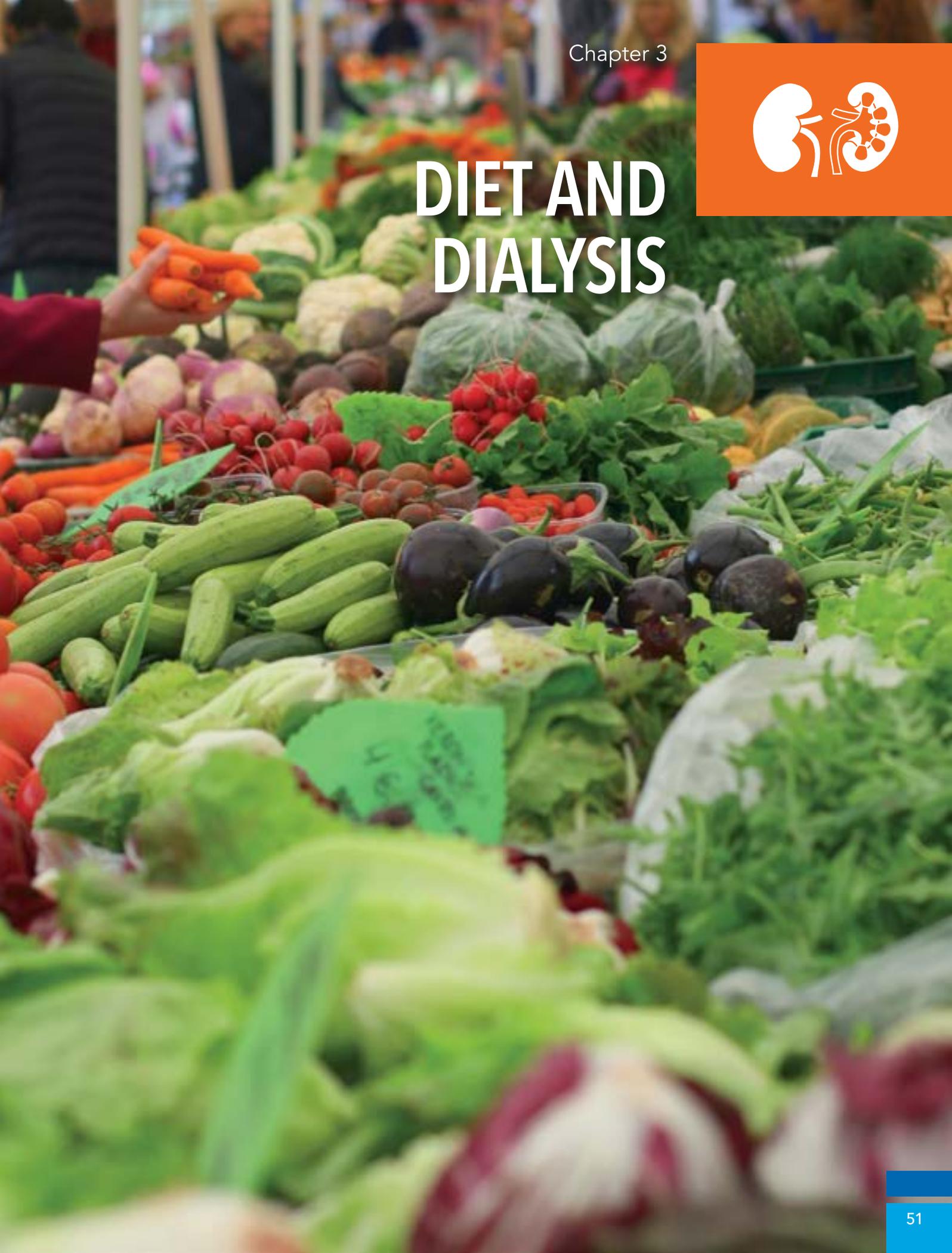




DIET AND DIALYSIS



Diet and dialysis



HELPFUL TIP

There is no standard “kidney diet”: what you eat may change as your kidney function or your medications change, or if you have other conditions like diabetes. If you’re on dialysis, you’ll need to make some changes to your diet, which can be difficult. But these changes don’t have to take the fun out of food. The Kidney Community Kitchen is a resource that offers kidney-friendly recipes, meal plans and kidney diet and nutrition tips. Check out the meal plans and recipes at kidneycommunitykitchen.ca. And if you sign up to be a member (it’s free!), you also have access to the meal planner tool.

Eating the right foods when you’re on dialysis can be challenging and it’s different for everyone, but you can still enjoy good food. In this chapter we explain the changes you may need to make in your diet and help you choose the right types and amounts of food to meet your individual needs. You’ll also be meeting with a kidney dietitian who will explain your particular requirements.

Why do you need to limit certain types of foods?

Dialysis removes waste products in the blood. In general, the more dialysis hours you do, the more waste products are removed. Peritoneal dialysis and home hemodialysis have fewer diet restrictions because dialysis is done more often and longer. However, dialysis can also remove nutrients the body needs. Depending on your blood levels, you may need to increase or decrease certain types of foods.



Protein

Everyone needs some **protein** every day to keep healthy. Your body needs protein to help fight infections, heal wounds and keep your muscles strong and healthy. You will likely need to eat more protein than before you started dialysis, especially if you are on peritoneal dialysis. *Why?* Because some protein is filtered out with dialysis. A dietitian will meet with you to determine the right amount of protein for you. Here are some high protein food choices:

- Meat such as chicken, turkey, beef, pork (choose meats without phosphate additives) and fish
- Tofu
- Eggs
- Cottage cheese

Diet and dialysis



Your doctor may also prescribe **phosphate binders**. Phosphate binders are often calcium-based and they bind to phosphate from food in your digestive tract. The bound phosphate leaves the body in the stool instead of being absorbed in the blood. You should take phosphate binders *with the first bite of your meal* so they have an effect on what you eat.

Potassium

Potassium is a mineral that is normally removed from the blood by healthy kidneys. Too much or too little potassium can be dangerous for you. A very high level can cause the heart to beat irregularly or even stop. If your potassium level is too high, your doctor will recommend that you reduce your intake of potassium-rich food and may adjust your medications and/or dialysis as well. It's important to know how much potassium is in different foods because you can reach high levels without feeling any symptoms. Your dialysis team will help you determine the right amount of potassium for you.

MY TARGET

My Target Potassium is:

Potassium is usually removed with dialysis: the more treatment hours you do, the more potassium is removed. With peritoneal dialysis or home hemodialysis, you may not need to limit your potassium intake as much since you are dialyzing more frequently. Some people on peritoneal dialysis may need to follow a *high* potassium diet. With in-centre hemodialysis, you will need to limit your potassium intake to avoid too much build-up between treatments.



NOTES:

Diet and dialysis



HELPFUL TIP

Even if you need to restrict potassium, there are still many fruits and vegetables that you can eat fairly often. Post a list of your favourites on your fridge. That way, you won't feel like you're missing out on foods you enjoy.

See kidney.ca and kidneycommunitykitchen.ca for a fact sheet about low potassium fruits and vegetables and information about potassium and kidney disease.

Almost all foods have potassium, but some have more than others. If you need a low potassium diet, you will need to limit high potassium foods including many fruits, vegetables and whole grains. Here are some tips to help you.

- Eat five to six servings of low potassium vegetables and fruits each day. A serving is ½ cup or one medium piece of fruit.
- Cook vegetables to remove as much potassium as possible. You'll need to "double boil" potatoes (see instructions at kidneycommunitykitchen.ca).
- Replace whole grain pasta, rice, and bread with white or 60% whole wheat pasta, bread, and rice.
- Limit milk and dairy products to ½ cup per day.



Fibre

Fibre is important to your health since it helps to prevent constipation, keeps your gut healthy and helps you feel satisfied after a meal, which can help you maintain your weight. Some high fibre foods that can fit into a kidney diet include:

- Oatmeal, barley, corn bran cereal
- Apples, pears, blackberries, raspberries
- Peas, green or yellow beans
- Carrots, cabbage
- You can also add 1-2 Tbsp. ground flax or natural wheat bran (germ removed) to your food.
- Inulin-based fibre supplements are often acceptable; speak to your kidney dietitian or pharmacist before starting any fibre supplement.

Diet and dialysis



Sodium (salt)

Almost everyone on dialysis should limit their sodium intake to reduce blood pressure and fluid build-up. Sodium attracts water. When you eat salty foods, you feel thirsty and your body holds the extra water. A diet high in sodium can cause high blood pressure, edema (swelling, often seen in the ankles and lower legs), and shortness of breath. There will be more sodium and water to remove during dialysis, which can make the treatment more difficult to perform, or which may cause symptoms such as muscle cramps. Following a low-sodium diet will help control these symptoms.

Limit sodium intake to 1500 – 2000 mg per day or less. Here are some tips to decrease sodium (salt) intake:

- Do not use salt in cooking or at the table. Instead, use fresh or dried herbs and spices to enhance the flavour of foods.
- Choose fresh and frozen vegetables, meat, chicken and fish instead of canned, pickled, breaded or processed foods.
- Avoid convenience foods, canned soups, pickles, sauces, processed cheese and salty snack foods such as potato chips, pretzels, and salted nuts.
- Read food labels to help you choose low sodium varieties of your favourite foods.
- Limit condiments such as soy sauce, barbeque sauce, ketchup, etc.
- Many restaurants provide healthy menu choices. Ask your server for low-sodium choices available on the menu.



Salt substitutes

Many salt substitutes contain potassium and other unsafe minerals. *Don't use salt substitutes unless your doctor or dietitian has approved them.*

Diet and dialysis



Peritoneal dialysis and weight gain

Peritoneal dialysis fluid contains dextrose, a type of sugar. When you do PD, the body absorbs some of the dextrose. *To avoid weight gain, add more physical activity to your day and limit higher calorie foods like sweets, sodas, cakes and cookies.* You can also limit your sodium and fluid intake to help you avoid having to use higher strength dialysate, which contains more dextrose.



If you have diabetes, you may require more insulin or diabetic medications to help balance the extra glucose that results from the breakdown of dextrose. You may need more frequent blood glucose tests while you are starting peritoneal dialysis. Keep a good record of all your blood sugar readings and bring this record to all your clinic appointments. If you are being followed by an endocrinologist, let them know you're starting PD.

See **Chapter Eight:**

Living well with kidney failure

for information about exercise and other general recommendations for maintaining good health. There are many benefits to staying active.

Diet and dialysis



Warning about glucose meters

Some glucose meters interact with a specific peritoneal dialysis fluid (icodextrin) and can give you a false high reading, leading you to take extra insulin that may cause dangerously low blood sugars. Make sure you have a glucose meter that does not interact with your dialysis fluid. Check with your pharmacist and switch to an appropriate glucose meter if needed.

Information for people with diabetes

If you have diabetes, you are at increased risk of low blood sugars before you transition onto dialysis (the pre-dialysis stage) and once you start dialysis. The doctor who takes care of your diabetes may need to decrease your insulin (or other hypoglycemic agent) on a regular basis. *You should report repeated low blood sugar reactions to your doctor.*

It is important to maintain your blood sugar in the range recommended by your doctor and/or diabetes team because this can help to decrease thirst and control fluid intake.

NOTES:

Diet and dialysis



NOTES:

Summary

- There is no standard kidney diet. A dietitian who specializes in kidney nutrition can help design a diet that's right for you. They'll provide valuable suggestions, tips and ideas for healthy eating while on dialysis.
- Some changes to diet are needed when you are on dialysis to help prevent the build-up of certain waste products in the blood. Dietary changes may also be needed for those people in the pre-dialysis stage or those receiving non-dialysis supportive care.
- You'll need to pay special attention to the amount of protein, phosphorus, potassium and fibre in your diet. It's also very important to reduce the amount of sodium in your diet to avoid fluid build-up and high blood pressure.
- Peritoneal dialysis can cause weight gain and blood sugar changes because the dialysis fluid contains dextrose, a type of sugar, and some of it is absorbed by the body.
- Another good resource is the Kidney Community Kitchen at kidneycommunitykitchen.ca.