

Healthy Eating for People with Diabetes and Kidney Disease

High blood sugar from diabetes can put extra stress on your kidneys. It is important to help control your blood sugar by eating the right food.

The guidelines in this handout will help you choose the best foods to help manage your diabetes and kidney disease. Your dietitian can help you find the right amounts and types of food to have at your meals and snacks.

General guidelines

- Eat at least 3 meals every day. Some people find it helps to also have snacks.
- Choose lower-fat foods, lean meats, and foods prepared and served with little or no added fat.
- Don't use salt in cooking or at the table. Try using herbs and spices to replace salt. Don't use salt substitutes because many have potassium in them (such as No Salt[®] or Half Salt[®]).
- Limit high-salt processed, packaged, and prepared foods such as deli meat, bacon, sausage, canned soup and vegetables, snack foods, pickles, condiments, and sauces.
- Eat foods that are high in protein (meat, fish, poultry, eggs, peanut butter, and milk products) in the amounts recommended by your dietitian.
- Choose vegetables and fruit that are lower in potassium, as recommended by your dietitian.
- Limit the phosphorus in your diet by limiting milk products, nuts and seeds, as recommended by your dietitian.

Meal planning guidelines

Every person with kidney disease has different needs. These needs depend on their age, medical condition, and stage of kidney disease. The suggested number of choices for the food groups gives you a place to start. Your dietitian will tell you how many choices are right for you.

Meals

Carbohydrates are the main fuel for our bodies. They affect our blood sugar more than other foods. Eat 3 meals every day that contain 3–5 carbohydrate choices. Carbohydrates are found in fruits, grains and starches, milk and alternatives, and sweets.

Spread your carbohydrate foods out over the day at meals and snacks. This will help you control your blood sugars better.

Common foods that contain carbohydrates are listed in the following pages.

Snacks

Choose 1–2 carbohydrate choices per snack. If you are not sure when or how often you need to have a snack, ask your dietitian or diabetes educator.

Carbohydrate choices 1 carbohydrate choice = 15 grams carbohydrate

Each food item below is equal to **one carbohydrate choice**.

Grains and Starches

Have 2–3 choices at each meal and 1–2 choices for each snack, or as suggested by your dietitian.

To cut down on the potassium and phosphorus in your diet choose white or 60% whole wheat breads and grain products.

Corn and boiled potatoes are counted as **low potassium starch choices** if prepared as below in the *Choose more often* list.

Choose more often	
<ul style="list-style-type: none">• bagel, 1 mini or ¼ large• barley, pearled, cooked, ½ cup (125 mL)• bread, 1 slice• bread sticks, 2• buns:<ul style="list-style-type: none">• small (dinner roll), 1• large (Kaiser, hamburger, hotdog), ½• cereal:<ul style="list-style-type: none">• cooked (cream of wheat or rolled oats), ¾ cup (175 mL)• dry (unsweetened): corn bran, corn flakes, toasted rice cereal, Crispex[®], Special K[®], ½ cup (125 mL)• chapati or roti, 1 6-inch (45 g)• corn, ½ cup (125 mL) cooked or ½ cob	<ul style="list-style-type: none">• crackers:<ul style="list-style-type: none">• soda, unsalted, 7• Melba toast, 4 rectangles or 7 rounds• wheat thin crackers, 3 large or 12 small• stoned wheat crackers, unsalted, 3• English muffin, ½• flour, white or barley, 3 Tbsp (45 mL)• pancakes or waffles, homemade, 1 small (4-inch)• pasta (white) or couscous, cooked, ½ cup (125 mL)• pita shell, ½ of a 6-inch shell• potatoes, peeled, cubed or shredded, then boiled in unsalted water, ½ cup (125 mL)• rice or millet, ⅓ cup (75 mL) cooked• soup, homemade with noodles or rice, 1 cup (250 mL)• tortilla shell, white, ½ of a 10-inch shell or 1 6-inch shell
Choose sometimes	
<ul style="list-style-type: none">• cake: angel, white or sponge, 1 small piece (2-inch by 2-inch)• cookies:<ul style="list-style-type: none">• arrowroot, 3• digestives, plain, 2• graham wafers, 3• vanilla wafers, 5	<ul style="list-style-type: none">• granola bar, oatmeal, 1 bar (24–28 g)• muffin: plain or oatmeal, 1 small (45 g)• pretzels, plain, unsalted, 30 small sticks or 7 large• rice cakes, 2
Avoid	
<ul style="list-style-type: none">• bran or oat bran muffins• foods made with chickpea flour• French fries• hash browns• pancake, muffin or waffle mixes	<ul style="list-style-type: none">• potato chips and other salted snack foods• potatoes (whole): boiled, baked or microwaved• scalloped potatoes• whole grain products

Fruit

Eat up to 2–3 choices per day, or as recommended by your dietitian. Limit to 1 choice for each meal or snack. Choose fresh fruit or canned fruit in juice most often. Drink juice less often.

Choose more often (low potassium)

- apple, raw, 1 medium
- apricots, 2 raw
- berries, 1 cup (250 mL):
 - blueberry
 - Saskatoon
- berries, ½ cup (125 mL):
 - blackberry
 - boysenberry
 - gooseberry
 - loganberry
 - raspberry
 - strawberry
- canned fruit, in juice or water, unsweetened, ½ cup (125 mL):
 - applesauce
 - fruit cocktail
 - peaches
 - pears
 - pineapple
- casaba melon, ½ cup (125 mL)
- cranberries:
 - raw, 1½ cup (375 mL)
 - sauce, 3 Tbsp (45 mL)
- cherries, 10
- crabapple, 1 large
- figs, 1 raw or 2 dried
- grapes, red or green, ½ cup (125 mL)
- juice, ½ cup (125 mL):
 - apple,
 - cranberry
 - pear
 - pineapple
- juice, ⅓ cup (75 mL):
 - grape
 - cranberry cocktail
- lychee, 10
- mandarin orange or tangerine, 1 large
- mango, ½ medium or ½ cup (125 mL)
- passion fruit, 3 fruits or ½ cup (125 mL)
- peach, 1 medium
- pear, 1 medium
- pineapple, ¾ cup (175 mL) or 2 slices
- plum, 1 raw
- pomegranate, ½ raw
- prunes, 3 dried or canned
- watermelon, 1 cup (250 mL)

Avoid (high potassium)

- | | | | |
|--------------|----------------|----------------|--------------|
| • avocado | • nectarine | • dried fruit: | |
| • banana | • orange | • apricots | • peaches |
| • cantaloupe | • papaya | • currants | • pears |
| • guava | • persimmon | • dates | • persimmons |
| • kiwi | • prickly pear | • lychees | • raisins |

Caution

Do not eat or drink **starfruit** and **starfruit juice**. These are dangerous if you have kidney disease.

Grapefruit and **grapefruit juice** affect the way many medicines work. Ask your doctor or pharmacist if grapefruit is safe for you to have.

Milk and Alternatives

People with kidney disease need to limit their milk products to control their phosphorus and potassium intake. Limit to no more than 1 choice per day or as directed by your dietitian.

Choose more often

- milk: skim, 1%, 2%, or homogenized, 1 cup (250 mL)
- milk, powder (skim), ¼ cup or 4 Tbsp (60 mL)
- milk, evaporated, ½ cup (125 mL)
- pudding, non-instant, calorie reduced, ½ cup (125 mL)
- rice beverage, non-fortified, ½ cup (125 mL)
- soy beverage, plain*, 1 cup (250 mL)
- soy beverage, flavoured*, ½ to 1 cup (125–250 mL)
*Read label for amount of potassium and phosphorus
- yogurt:
 - plain or with sugar substitutes (aspartame or sucralose), ¾ cup (175 mL)
 - sweetened or frozen, ½ cup (125 mL)
- ice cream, ½ cup (125 mL)

Avoid

- chocolate milk, buttermilk, condensed milk
- coconut milk
- eggnog
- instant breakfast mixes
- instant pudding
- milkshakes
- Ovaltine®

Vegetables

Most vegetables are **low in carbohydrate** but they still have potassium in them. They must be counted towards your total potassium intake. Eat up to 3–4 servings per day, or as recommended by your dietitian.

Choose more often (low potassium). All servings are ½ cup (125 mL) or 1 medium piece unless other amounts are listed.

- alfalfa sprouts, 1 cup (250 mL)
- asparagus
- beans: yellow and green
- bean sprouts
- bitter melon
- broccoli
- cabbage: green/red or suey choy
- carrot
- cauliflower
- celery, 1 stalk raw
- chili peppers, ¼ cup (60 mL)
- collard greens
- cucumber
- dandelion greens
- eggplant
- endive
- fiddleheads
- garlic
- ginger root
- kale
- leeks
- lettuce, 1 cup (250 mL) of all varieties, raw
- mushrooms, raw or canned
- mustard greens
- okra, raw or boiled
- onions, green or white
- peas, green and snow
- peppers, bell
- radish
- shallots, ¼ cup (60 mL)
- spinach, 1 cup (250 mL) raw (not cooked)
- squash, summer: (chayote, crookneck, mo qua)
- squash, winter: (por qua, spaghetti)
- tomato: ½ medium, raw, ¼ cup (60 mL) canned or 3 Tbsp (45 mL) sauce
- turnip
- water chestnuts, ¼ cup (60 mL)
- watercress, 1 cup (250 mL) raw
- zucchini

Avoid (high potassium)

- artichokes
- bamboo shoots
- beets
- bok choy, cooked
- Brussels sprouts
- celery, cooked
- chard, boiled
- mushrooms, cooked
- okra, boiled from frozen
- parsnips
- rutabaga
- spinach, boiled
- vegetables canned with potassium chloride

Protein choices

1 choice = 7 grams protein

If you are **on** dialysis, choose between 5 and 8 choices, or as suggested by your dietitian.

If you are **not on** dialysis, choose between 3 and 6 choices per day, or as suggested by your dietitian.

These foods have little or no carbohydrate. Choose leaner meats and lower-fat cooking methods.

Choose more often

- egg:
 - whole, 1
 - whites, 2
- fish:
 - halibut, cod, salmon, tuna, 1 ounce (30 g)
 - canned tuna, salmon, ¼ cup (60 mL)
- meat and poultry:
 - beef, lamb, pork, veal, chicken, 1 ounce (30 g)
 - lean ground meat/poultry, 2 Tbsp (30 mL)
- seafood:
 - lobster, 1 ounce (30 g)
 - shrimp, 6 medium or 5 large
 - blue crab, ¼ cup (30 g)
 - oysters, 2 medium (50 g)
 - tofu, firm, ¼ cup (60 mL)
 - tofu, soft, ½ cup (125 mL)

Choose sometimes

- cheese, (limit to one choice per day or less)
low fat (less than 20% M.F.) or regular fat (more than 20% M.F.):
 - cheddar, 1 ounce (30 g)
 - Swiss, 1 ounce (30 g)
 - Mozzarella, 1 ounce (30g)
 - cottage cheese, ¼ cup (60 mL)
- legumes, (also contain 1 carbohydrate choice):
 - chickpeas, ½ cup (125 mL)
 - kidney, ½ cup (125 mL)
 - lentils, ½ cup (125 mL)
 - navy, ½ cup (125 mL)
 - pinto, ½ cup (125 mL)
- peanut butter or nut butters, unsalted
(limit to one choice per day or less)
regular or reduced fat, 2 Tbsp (30 mL)
- seafood:
 - clams, 1 large (25g)

Fat choices

1 choice = 5 grams fat

Choose 3–6 choices of added fats every day. Each food item below is equal to **one fat choice**.

Choose healthier fats such as canola oil, olive oil, or non-hydrogenated margarine more often.

Choose more often

- ground flax, 1 Tbsp (15 mL)
- light cream cheese, 2 Tbsp (30 mL)
- light mayonnaise, 1 Tbsp (15 mL)
- light sour cream (limit to one choice per day), 2 Tbsp (30 mL)
- margarine, (non-hydrogenated):
 - regular, 1 tsp (5 mL)
 - light, 2 tsp (10 mL)
- oil (canola or olive), 1 tsp (5 mL)
- light salad dressing, 2 Tbsp (30 mL)

Choose sometimes

- butter, unsalted, 1 tsp (5 mL)
- gravy, unsalted, 2 Tbsp (30 mL)
- regular cream cheese, 1 Tbsp (15 mL)
- regular mayonnaise, 1 tsp (5 mL)
- regular salad dressing, 1 Tbsp (15 mL)
- regular sour cream (limit to one choice per day), 2 Tbsp (30 mL)
- table cream, 10% M.F., 2 Tbsp (30 mL)
- whipping cream, 1 Tbsp (15 mL)

Avoid

- cream sauces made with milk
- cheese spreads
- gravy mixes

Extras

These foods have little or no carbohydrate or calories. Use them as needed to flavour your food.

Choose more often

- sugar substitutes
- diet pop (avoid colas)
- garlic
- herbs (salt-free)
- lemon and lime
- herb and spice mixtures (salt-free)
- spices (salt-free)
- sugar-free hard candies and popsicles
- sugar-free gelatin desserts
- vinegar

Choose sometimes

Limit to 1 Tbsp per day.

- barbecue sauce
- horseradish
- ketchup
- mustard
- relish
- soya sauce

