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.

<table>
<thead>
<tr>
<th>Choose more often</th>
<th>Choose sometimes</th>
<th>Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>• bagel, 1 mini or ¼ large</td>
<td>• cake: angel, white or sponge, 1 small piece (2-inch by 2-inch)</td>
<td>• bran or oat bran muffins</td>
</tr>
<tr>
<td>• barley, pearled, cooked, ½ cup (125 mL)</td>
<td>• cookies:</td>
<td>• potato chips and other salted snack foods</td>
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<tr>
<td>• bread, 1 slice</td>
<td>• arrowroot, 3</td>
<td>• potatoes (whole): boiled, baked or microwaved</td>
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<tr>
<td>• bread sticks, 2</td>
<td>• digestives, plain, 2</td>
<td>• scalloped potatoes</td>
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<tr>
<td>• buns:</td>
<td>• graham wafers, 3</td>
<td>• whole grain products</td>
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<tr>
<td>- small (dinner roll), 1</td>
<td>• vanilla wafers, 5</td>
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<tr>
<td>- large (Kaiser, hamburger, hotdog), ½</td>
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<tr>
<td>• cooked (cream of wheat or rolled oats), ¼ cup (175 mL)</td>
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<tr>
<td>• dry (unsweetened): corn bran, corn flakes, toasted rice cereal, Crispex®, Special K®, ½ cup (125 mL)</td>
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<tr>
<td>• chapati or roti, 1 6-inch (45 g)</td>
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<tr>
<td>• corn, ½ cup (125 mL) cooked or ½ cob</td>
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<tr>
<td>• crackers:</td>
<td>• granola bar, oatmeal, 1 bar (24–28 g)</td>
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<tr>
<td>- soda, unsalted, 7</td>
<td>• muffin: plain or oatmeal, 1 small (45 g)</td>
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<tr>
<td>- Melba toast, 4 rectangles or 7 rounds</td>
<td>• pretzels, plain, unsalted, 30 small sticks or 7 large</td>
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<tr>
<td>- wheat thin crackers, 3 large or 12 small</td>
<td>• rice cakes, 2</td>
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<tr>
<td>- stoned wheat crackers, unsalted, 3</td>
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<tr>
<td>- English muffin, ½</td>
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<tr>
<td>- flour, white or barley, 3 Tbsp (45 mL)</td>
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</tr>
<tr>
<td>- pancakes or waffles, homemade, 1 small (4-inch)</td>
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<tr>
<td>- pasta (white) or couscous, cooked, ½ cup (125 mL)</td>
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<tr>
<td>- pita shell, ½ of a 6-inch shell</td>
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<tr>
<td>- potatoes, peeled, cubed or shredded, then boiled in unsalted water, ½ cup (125 mL)</td>
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<tr>
<td>- rice or millet, ½ cup (75 mL) cooked</td>
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<tr>
<td>- soup, homemade with noodles or rice, 1 cup (250 mL)</td>
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<tr>
<td>- tortilla shell, white, ½ of a 10-inch shell or 1 6-inch shell</td>
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</tbody>
</table>
**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

### Avoid (high potassium)

- avocado
- banana
- cantaloupe
- guava
- kiwi
- nectarine
- orange
- papaya
- persimmon
- prickly pear
- dried fruit:
- apricots
- currants
- dates
- lychees

### 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

**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

<table>
<thead>
<tr>
<th>Choice</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg:</td>
<td>whole, 1</td>
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<tr>
<td></td>
<td>whites, 2</td>
</tr>
<tr>
<td>Fish:</td>
<td>halibut, cod, salmon, tuna, 1 ounce (30 g)</td>
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<tr>
<td></td>
<td>canned tuna, salmon, ¼ cup (60 mL)</td>
</tr>
<tr>
<td>Meat and poultry:</td>
<td>beef, lamb, pork, veal, chicken, 1 ounce (30 g)</td>
</tr>
<tr>
<td></td>
<td>lean ground meat/poultry, 2 Tbsp (30 mL)</td>
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<tr>
<td>Seafood:</td>
<td>lobster, 1 ounce (30 g)</td>
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<tr>
<td></td>
<td>shrimp, 6 medium or 5 large</td>
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<td></td>
<td>blue crab, ¼ cup (30 g)</td>
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<td></td>
<td>oysters, 2 medium (50 g)</td>
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<td></td>
<td>tofu, firm, ¼ cup (60 mL)</td>
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<td>tofu, soft, ½ cup (125 mL)</td>
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</tbody>
</table>

#### 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.

<table>
<thead>
<tr>
<th>Choose more often</th>
<th>Choose sometimes</th>
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</thead>
<tbody>
<tr>
<td>• ground flax, 1 Tbsp (15 mL)</td>
<td>• butter, unsalted, 1 tsp (5 mL)</td>
</tr>
<tr>
<td>• light cream cheese, 2 Tbsp (30 mL)</td>
<td>• gravy, unsalted, 2 Tbsp (30 mL)</td>
</tr>
<tr>
<td>• light mayonnaise, 1 Tbsp (15 mL)</td>
<td>• regular cream cheese, 1 Tbsp (15 mL)</td>
</tr>
<tr>
<td>• light sour cream (limit to one choice per day), 2 Tbsp (30 mL)</td>
<td>• regular mayonnaise, 1 tsp (5 mL)</td>
</tr>
<tr>
<td>• regular salad dressing, 1 Tbsp (15 mL)</td>
<td>• regular salad dressing, 1 Tbsp (15 mL)</td>
</tr>
<tr>
<td>• margarine, (non-hydrogenated):</td>
<td>• regular sour cream (limit to one choice per day), 2 Tbsp (30 mL)</td>
</tr>
<tr>
<td>• regular, 1 tsp (5 mL)</td>
<td>• table cream, 10% M.F., 2 Tbsp (30 mL)</td>
</tr>
<tr>
<td>• light, 2 tsp (10 mL)</td>
<td>• whipping cream, 1 Tbsp (15 mL)</td>
</tr>
<tr>
<td>• oil (canola or olive), 1 tsp (5 mL)</td>
<td></td>
</tr>
<tr>
<td>• light salad dressing, 2 Tbsp (30 mL)</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Choose more often</th>
<th>Choose sometimes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• sugar substitutes</td>
<td>• barbecue sauce</td>
</tr>
<tr>
<td>• diet pop (avoid colas)</td>
<td>• mustard</td>
</tr>
<tr>
<td>• garlic</td>
<td>• relish</td>
</tr>
<tr>
<td>• herbs (salt-free)</td>
<td>• soya sauce</td>
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<tr>
<td></td>
<td>Limit to 1 Tbsp per day.</td>
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<tr>
<td>• lemon and lime</td>
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</tr>
<tr>
<td>• herb and spice mixtures (salt-free)</td>
<td></td>
</tr>
<tr>
<td>• spices (salt-free)</td>
<td></td>
</tr>
<tr>
<td>• sugar-free hard candies and popsicles</td>
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</tr>
<tr>
<td>• sugar-free gelatin desserts</td>
<td></td>
</tr>
<tr>
<td>• vinegar</td>
<td></td>
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</tbody>
</table>
# Healthy snack ideas

<table>
<thead>
<tr>
<th>The snack examples below are shown as one serving</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 slice bread with 1 Tbsp (15 mL) no added salt peanut butter</td>
<td>½ medium berry muffin (homemade) with 1 tsp (5 mL) non-hydrogenated margarine</td>
</tr>
<tr>
<td>½ bagel with 1 Tbsp (15 mL) cream cheese</td>
<td>7 unsalted soda crackers or Melba toast rounds with 1 Tbsp (30 mL) cream cheese</td>
</tr>
<tr>
<td>1 English muffin with 1 tsp (5 mL) non-hydrogenated margarine</td>
<td>3 gingersnap or arrowroot cookies</td>
</tr>
<tr>
<td>3 cups plain popcorn with 1 tsp (5 mL) non-hydrogenated margarine</td>
<td>1 piece fresh fruit or ½ cup (125 mL) no added sugar canned fruit (drain liquid)</td>
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<tr>
<td>½ cup (125 mL) corn bran cereal</td>
<td>1 cup (250 mL) carrots</td>
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</tbody>
</table>

# Notes

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