

Nutrition Guidelines for Hemodialysis

Name: _____

Date: _____

Dietitian: _____

Phone: _____

Contents

Introduction	1
Your meal plan.....	4
Sample meal plan	5
Milk and dairy	6
Dairy alternatives	6
Vegetables	7
Potatoes	9
Fruit	10
Grain products.....	12
Meat and alternative protein foods	15
Fats	16
Guidelines for measuring portions.....	16
Reading food labels	17
Adding calories and flavour.....	18
Fluid	19
High sodium foods to avoid.....	21
Foods with higher potassium content	23
Phosphorus	24
Emergency meal plan	25

Nutrition Guidelines for Hemodialysis

Introduction

Your eating habits can be an important way to manage your health, especially if you have chronic kidney disease (CKD). You may need to change your eating habits, depending on how well your kidneys are working.

Healthy kidneys remove waste products and fluids from your body. With CKD, your kidneys no longer do this. Following your nutrition guidelines are an important part of your treatment.

Each person's nutrition guidelines are different. Your guidelines are made just for you. Your guidelines will help to keep products (like potassium, phosphorus, sodium, and fluids) from building up in your body and making you sick.

If you want to eat a food that is not listed in this guide, talk with your dietitian.

Protein

- Protein helps to build and repair muscles, bones, and body tissues. Protein can help to:
 - › fight infections.
 - › manage your weight and blood sugars.
 - › keep you feeling full longer.
- **If you are not on dialysis**, keep portion sizes to **3 ounces per serving** (after cooking). Too much protein can cause your kidneys to work too hard.
- **If you are on dialysis**, you will need **more protein**. Talk to your dietitian about the right amount for you.
- The best sources of protein come from:
 - › Meats (like beef, pork, poultry)
 - › Fish and other seafood
 - › Eggs
 - › Milk
 - › Cheese
 - › Tofu
 - › Beans
 - › Nuts
 - › Legumes

Sodium (salt)

- Sodium helps to balance fluid and acid. It also controls blood pressure.
- It is found naturally in many foods. It is also added in high amounts to some foods by food manufacturers. Most of the sodium in our diet comes from processed foods, foods eaten at restaurants (unless specified as low sodium), canned foods, frozen meals, salty snacks and seasonings, and grain products.
- To control how much salt you eat, make sure to:
 - › Read food labels to choose foods with **10% DV (daily value) or less in sodium.**
 - › Instead of table salt, try fresh or dried herbs, spices, lemon juice, oil, or vinegar.
 - › Eat less processed foods and more fresh fruits and vegetables.

Potassium

- Potassium is important for muscles to work and for heart health.
- Too much or too little can be dangerous.
- The amount of potassium you need can change, depending on how well your kidneys are working and which medication(s) you are taking.
- Potassium is found in most foods, but is particularly high in:
 - › Some fruits (bananas, avocados, tomatoes, oranges, dried fruits) and vegetables (dark leafy greens, potatoes, squash)
 - › Dairy products
 - › Salt substitutes
 - › Chocolate
 - › Nuts, seeds, lentils, and legumes (like dried or canned beans, lentils, and chickpeas)
- Double-boiling or pre-soaking in water will help to lower the potassium in vegetables.

Phosphorus

- This mineral is needed for many reactions in your body, like contracting your muscles. It also works with calcium to keep your bones strong.
- When your kidneys do not work well, phosphorus starts to build up in your blood. Your body releases calcium from your bones to balance these minerals.
- When calcium and phosphorus bind (attach) together, they can deposit in your skin, joints, blood vessels, and other parts of your body. This can lead to serious health problems, like:
 - › Bone pain and weakness
 - › Poor blood circulation
 - › Damage to the heart and other organs
 - › Skin ulcers

Tips:

- **Do not** use salt when cooking or at the table.
- **Do not** use salt substitutes.
- Avoid processed and canned foods unless they are salt-free and low in potassium and phosphorus.
- Read nutrition labels **and** the ingredients list on packaged foods.
- Ask your dietitian for tips on how to eat healthy at restaurants.

Your meal plan

Nutrient breakdown (the amounts of specific foods/nutrients you need):

Protein _____ g
 Sodium _____ g _____ mg
 Potassium _____ mmol _____ mg
 Phosphorus _____ mg

Food	Amount	Choose from:
Milk and dairy		Page 6
Dairy alternatives		Page 6
Vegetables		Pages 7-8
Potatoes		Page 9
Fruit		Pages 10-11
Grain products		Pages 11-14
Meat and alternative protein foods		Page 14-15
Fats		Page 15

Sample meal plan

Breakfast:

<u> 1 </u> fruit	<u> 1/2 </u> cup applesauce
<u> </u> meat and alternatives	<u> </u> egg(s)
<u> </u> grain products	<u> </u> slices white toast
<u> 1-2 </u> fats	<u> 1-2 </u> tsp margarine and jam
<u> </u> milk/dairy	<u> </u> cup milk OR yogurt
✓ tea or coffee	<u> 1/2 </u> cup coffee with 1 tbsp milk or cream

Morning snack: _____

Lunch:

<u> </u> meat and alternatives	<u> </u> cup tuna
<u> </u> grain products	<u> </u> slice(s) white bread
<u> 1-2 </u> fats	<u> 1-2 </u> tsp mayonnaise or margarine
<u> 1 </u> fruit	<u> 14 </u> grapes
<u> </u> vegetable(s)	<u> </u> baby carrots
<u> </u> milk/dairy	_____
✓ tea or coffee	<u> 1/2 </u> cup tea with 1 tbsp milk or cream

Extra foods: _____

Afternoon snack: _____

Supper:

<u> </u> meat and alternatives	<u> </u> oz chicken breast (baked)
<u> </u> grain products	<u> </u> white roll(s)
<u> 1 </u> potato(es)	<u> 1/2 </u> cup mashed potatoes
<u> 2 </u> vegetable(s)	<u> 1/2 </u> cup carrots and <u> 1/2 </u> cup green beans
<u> 1-2 </u> fats	<u> 1-2 </u> tsp margarine
<u> 1 </u> fruit	<u> 1/2 </u> cup strawberries
<u> </u> milk/dairy	_____
✓ tea or coffee	<u> 1/2 </u> cup tea with 1 tbsp milk or cream

Extra foods: _____

Evening snack: _____

Milk and dairy

_____ choices a day (**also counts as a fluid**)

Each of the amounts listed below count as **1** choice:

Milk (whole, 2%, 1%, skim)	½ cup (125 ml)
Soy milk	½ cup (125 ml)
Kefir	½ cup (125 ml)
Milk (evaporated)	¼ cup (60 ml)
Yogurt or yogurt drink	½ cup (125 ml)
Ice cream	¾ cup (180 ml)
Alfredo sauce	½ cup (125 ml)

Dairy alternatives

_____ choices a day (**also counts as a fluid**)

Rice Dream™ (not enriched)	1 cup (250 ml)
› Original or vanilla	
Silk® True Almond (less than 2% phosphorus)	1 cup (250 ml)
› Original or unsweetened	

Vegetables

_____ choices a day

- **All** vegetables have potassium. **Do not** use canned vegetables unless they are salt-free (SF).
- Use fresh or frozen vegetables. Boiled vegetables are lower in potassium than those cooked in the microwave, steamed, stir fried, or roasted (see “Pre-soaking potatoes” on page 9).
- Each of the amounts listed below count as **1** choice:

Asparagus	4 spears (boiled or steamed)
Beans – green or wax	½ cup (125 ml), boiled 1 cup (250 ml), canned (SF)
Bean sprouts	½ cup (125 ml)
Beets	⅓ cup (80 ml) 2 slices, pickled
Beet greens	¼ cup (60 ml), boiled
Broccoli or cauliflower	⅓ cup (80 ml), boiled ½ cup (125 ml) raw, chopped ½ cup (125 ml) frozen, boiled
Brussels sprouts	3
Cabbage – red, green, savoy, kale, bok choy	1 cup (250 ml), raw ½ cup (125 ml), cooked
Carrots	½ cup (125 ml) sliced, boiled 1 small, raw (5 inches/13 cm) 5 baby raw
Celery	⅓ cup (80 ml), diced 7-inch (18 cm) stalk, raw
Collard greens	1 cup (250 ml) chopped, boiled
Corn	4-inch (10 cm) cob ½ cup (125 ml) kernels
Cucumbers	1 cup (250 ml), sliced
Dandelion greens	½ cup (125 ml), boiled
Fiddleheads	½ cup (125 ml), boiled

Lettuce	1 cup (250 ml), shredded
› Arugula	
› Butter	
› Endive	
› Green or red leaf	
› Iceberg	
› Romaine	
Mixed vegetables – frozen	½ cup (125 ml)
Mushrooms – raw	⅓ cup (80 ml), pieces 3 small
Onions – raw	½ cup (125 ml), chopped
Parsley	⅓ cup (80 ml), chopped
Parsnips	¼ cup (60 ml) slices, boiled
Peas	½ cup (125 ml), frozen ½ cup (125 ml), canned (SF)
Peppers – bell or jalapeño	½ medium, raw ¼ cup (60 ml), cooked
Pumpkin	¼ cup (60 ml), canned
Radishes	10-15, raw
Spinach – fresh	½ cup (125 ml), chopped
Squash	
› Scallop, zucchini	⅓ cup (80 ml), boiled ½ cup (125 ml), raw
› Acorn, hubbard, crookneck	¼ cup (60 ml), boiled, mashed
› Butternut	½ cup (125 ml), frozen, boiled
› Eggplant	½ cup (125 ml), cooked
› Spaghetti	¾ cup (180 ml), boiled
Tomatoes	
› Red or green	½ medium
› Cherry or grape	4
Swiss chard	¼ cup (60 ml), boiled
Turnip and turnip greens	½ cup (125 ml), boiled
Tossed salad	½ cup (125 ml)
Water chestnuts – canned	1 cup (250 ml), sliced

Potatoes

_____ choices a day

Each amount listed below counts as **1** choice:

Salad (homemade)	½ cup (125 ml)
Boiled (without skin)	1 small
Mashed	½ cup (125 ml)
French fries (frozen, white or sweet potato)	15
Sweet potato	
› Peeled, baked	1 small
› Peeled, mashed	½ cup (125 ml)

If you use raw potatoes in a recipe (stew, soup, scalloped potatoes), you must remove some of the potassium first. You should do this with all root vegetables (like carrots, turnips, parsnips, and sweet potatoes).

Pre-soaking potatoes

1. Peel and chop potatoes into small pieces.
 2. Soak potatoes for 4 hours in a **large** amount of water, 5-10 times the amount of the potatoes.
 3. Drain water and use potatoes as desired.
- **To remove more potassium from pre-soaked potatoes, you can add them to a pot of fresh water and boil for 6-7 minutes (they will still be firm). Then drain them and prepare as desired.**
 - **To save time, prepare extra potatoes. You can store them covered in water in a sealed container in the fridge for a couple of days.**

Choices to replace potatoes

If you decide **not** to have a potato, you can choose **1** of the following **instead**:

Tomatoes (SF), canned	½ cup (125 ml)
Tomato sauce (SF)	⅓ cup (80 ml)
Homemade spaghetti sauce (with meat)	½ cup (125 ml)
Tomato paste (SF)	3 tbsp (45 ml)
Pesto sauce	½ cup
Vegetables (see Vegetables list on pages 7-8)	2 choices
Fruit (see Fruit list on pages 10-11)	3 choices
V8® vegetable cocktail – low sodium	½ cup (125 ml)
Molasses	1 tbsp (15 ml)

Fruit

_____ choices a day

All fruits have potassium. You may use fresh, frozen, cooked, and canned fruits. Drain canned fruit before serving (the juice has potassium and is also a fluid).

Each of the amounts listed below are **1** choice:

Apple	1 small
Applesauce or fruit cocktail	½ cup (125 ml)
Apricot	1 medium, raw 3 halves, canned
Avocado	⅛ medium
Banana	2 inches (5 cm)
Berries	½ cup (125 ml), raw
Blueberries	1 cup (250 ml), raw
Cherries	8 raw ½ cup (125 ml), canned
Figs	1 dried or 3 canned
Gooseberries	⅓ cup (80 ml), raw
Grapes	14 small
Melon	
› Watermelon	⅔ cup (160 ml), cubed
› Cantaloupe	⅓ medium
› Honeydew	½ medium
Mango	½ cup
Orange, nectarine, kiwi	½ medium
Tangerine, mandarin, clementine	1 small
Lemon or lime	1 medium, juiced
Passionfruit	2 medium
Peach	1 small, fresh 2 halves, canned
Pear	½ medium 2 halves, canned
Pineapple	½ cup (125 ml) fresh or canned 1 slice ½ inch thick, fresh
Pomegranate	⅓ medium
Plum	1 medium
Prunes	2 dried

Raisins (seedless)	2 tbsp (30 ml)
Rhubarb	½ cup (125 ml) frozen, cooked (stewed or baked)
Tangerine, mandarin, clementine	1 small ½ cup (125 ml), canned
Juice	
› Cranberry or cranberry cocktail blend	½ cup (125 ml)
› Blueberry	
› Apple or pineapple	½ cup (125 ml)
› Orange	⅓ cup (80 ml) ¼ cup (60 ml)

Remember to drain the juice or syrup from canned fruit.

Grain products

Choose grains with **less than:**

- › 10% daily value (DV) sodium
- › 6-8% DV phosphorus
- › 12% DV fibre or less than 3 grams (if phosphorus is not listed on the label)

_____ choices a day

Each of the amounts listed below is **1** choice.

Breads

- White, French, or Italian • 1 slice
- Ben's® Holsum Fresh 100% Whole Grain Wheat • 1 slice
- Raisin • 1 slice
- Cracked wheat or oatmeal • 1 slice
- Pita or tortilla wrap (plain) • ½ small
- Hamburger bun • ½ bun
- Taco shell • 1

Crackers

- Wheat Thins • 11
- Melba toast • 4 pieces
- Breton® Crackers (original or vegetable) • 4
- Sociables and Ritz 50% less salt • 7
- Triscuit 50% less salt • 4
- Stoned Wheat Thins® 50% less salt • 4
- Soda crackers (unsalted) • 6
- Rice cakes (unsalted) • 2
- Rice crisps • 10
- Special K® cracker chips (original) • 20
- Goldfish® crackers (plain or cheddar) • ½ cup
- Pretzel Crisps® • 10

Rice and pasta

- Macaroni, spaghetti, penne, rotini (white)
- Rice (white)
- Orzo
- Couscous (not instant)
- Pearl barley
- 1/3 cup (80 ml), cooked
- 1/2 cup (125 ml), cooked
- 1/2 cup (125 ml), cooked
- 1/2 cup (125 ml), cooked
- 1/3 cup (80 ml), cooked

Cookies (best if homemade)

- Arrowroot
- Social Tea®
- Digestive
- Graham wafers
- Vanilla wafers
- Animal crackers
- Chocolate chip
- Chocolate mallows
- Fig Newtons
- Apple or blueberry Newtons
- Sugar
- Oreo, Fudgee-o, Maple Leaf
- Neapolitan wafers
- Quaker® Chewy granola bars
- Ice cream cone
- Waffle cone (small)
- Sugar cone (small)
- Popcorn (air-popped)
- 3
- 4
- 2
- 4
- 10
- 10
- 2
- 3
- 1
- 2
- 3
- 2
- 8
- 1
- 1
- 1
- 1
- 2 cups (500 ml)

Cake (best if homemade)

- Angel food
- Pound
- Sponge
- Vanilla
- Doughnut (yeast raised)
- 1 slice, 1/16 cake
- 1 slice, 1/16 cake
- 1 slice, 1/16 cake
- 1 slice, 1/16 cake
- 1

Pie crust

- Lemon*
- Blueberry*
- Apple*

*Fruit pie counts as both bread and fruit.

Cereal

- Cream of Wheat® (not instant)
 - Rolled oats, oatmeal (no more than 2 times a week)
 - Cornmeal
 - Puffed rice
 - Puffed wheat
 - Fibre 1™ Original (not flakes)
 - Kellogg's® Corn Flakes®
 - Kellogg's® Rice Krispies® (original or vanilla)
 - Special K®
 - › Original
 - › Vanilla almond
 - › Oats & honey
 - › Protein*
 - Quaker® Corn or Oat Squares
 - Kellogg's® Crispix® or Rice Chex™
 - Cheerios™
 - Multigrain Cheerios™
 - Apple Cinnamon Cheerios™
 - Honey Nut Cheerios™
 - Honey Bunches of Oats® (original, with almonds, or honey roasted)
 - Cinnamon Toast Crunch™
 - Kellogg's® Froot Loops®
 - Kellogg's® Frosted Flakes®
 - Honeycomb®
 - Lucky Charms™
 - Reeses Puffs
 - Sugar Crisp®
- 1/6 pie shell
 - 1/6 pie shell
 - 1/6 pie shell
 - 1/2 cup (125 ml), cooked
 - 1/2 cup (125 ml), cooked
 - 1/2 cup (125 ml), cooked
 - 1 1/2 cups (375 ml)
 - 1 1/4 cups (300 ml)
 - 1/3 cup (80 ml)
 - 3/4 cup (180 ml)
 - 2/3 cup (160 ml)
 - 3/4 cup (180 ml)
 - 1/2 cup (125 ml)
 - 1/2 cup (125 ml)
 - 1/2 cup (125 ml)
 - 3/4 cup (180 ml)
 - 2/3 cup (160 ml)
 - 1/2 cup (125 ml)
 - 1/2 cup (125 ml)
 - 1/2 cup (125 ml)
 - 1/2 cup (125 ml)
 - 2/3 cup (160 ml)
 - 3/4 cup (180 ml)
 - 1 cup (250 ml)
 - 3/4 cup (180 ml)
 - 1 cup (250 ml)
 - 1/2 cup (125 ml)
 - 1/2 cup (125 ml)
 - 1 cup (250 ml)

Meat and alternative protein foods

_____ oz a day (total) (cooked weight)

Meats:

- › Beef
- › Chicken or turkey
- › Lamb
- › Pork
- › Veal
- › Venison, game, rabbit

Fish:

- › Bluefish
- › Cod
- › Haddock
- › Mackerel
- › Perch
- › Pollock
- › Salmon*
- › Sea bass
- › Shark
- › Snapper
- › Sole
- › Squid
- › Tilapia
- › Tuna

*Shellfish:

- › Clams and mussels, 5 small = 1 oz
- › Shrimp, 5 medium = 1 oz
- › Scallops, 2 large or 4 small = 1 oz
- › Lobster, 1 pound = 4 oz fish

Egg:

- › 1 medium
- › 2 egg whites (low in phosphorus)
- › ¼ cup Egg Beaters®

*Cheese: 1 ounce or 3 tbsp, shredded

- › Brie, cheddar, brick, Monterey Jack, mozzarella, Swiss
- › Goat cheese, soft or semi-soft
- › Cottage cheese or ricotta, low sodium, ¼ cup

Other sources of protein

- › Tofu (firm), ½ cup = 3 oz meat
- › *Tempeh, 1 oz
- › Peanut butter (SF or regular), 1 tbsp = 1 oz meat
- › NoNuts Golden Pea butter (Sobeys), 2 tbsp

Talk to your dietitian if you plan to use lentils and/or legumes in a recipe.

***These foods should be limited to 2 serving a week (because of their salt and phosphorus content).**

****Use fresh or fresh frozen meat, fish, and poultry.**

****Avoid foods that are salted, smoked, cured, dried, processed, or canned with salt.**

Fats

_____ choices a day

- Margarine (non-hydrogenated)
 - › Regular or salt-free
 - Mayonnaise, Miracle Whip
 - Vegetable oil
 - Salad dressing, low sodium
 - President's Choice® Raspberry Vinaigrette
 - President's Choice® Honey Pear Vinaigrette
 - President's Choice® Lemon and Poppyseed
 - Cream cheese
- 1 tsp (5 ml)
 - 1 tsp (5 ml)
 - 1 tsp (5 ml)
 - 1 tbsp (15 ml)
 - 2 tbsp (30 ml)
 - 2 tbsp (30 ml)
 - 2 tbsp (30 ml)
 - 1 tbsp (15 ml)

Guidelines for measuring portions

- 1 oz chopped meat (cooked)
 - Palm of hand or deck of cards
 - Computer mouse
 - Tennis ball
 - Thumb tip
 - Whole thumb
 - 1 fist
 - Both palms open
- ¼ cup (30 g)
 - 3 oz (90 g) meat, chicken, fish
 - ½ cup pasta or rice
 - ¾ cup yogurt, hot cereal
 - 1 tsp (5 ml) margarine or oil
 - 1 tbsp (15 ml) peanut butter
 - 1 cup (250 ml) vegetables or fruits
 - 2 cups (500 ml) vegetables

Reading food labels

Example: Ritz Crackers

1. Start here →

Nutrition Facts	
20 servings per container	
Serving size	6 Crackers (20g)
Amount Per Serving	
Calories	100
<small>% Daily Value*</small>	
Total Fat 5g	6%
Saturated Fat 1g	5%
<i>Trans Fat</i> 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 12g	4%
Dietary Fiber 0g	0%
Total Sugars 2g	
Includes 0g Added Sugars	0%
Protein 1g	2%
Vitamin D 0mcg	0%
Calcium 30mg	2%
Iron 0.75mg	4%
Potassium 20mg	0%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

• Check the serving size.

2. Limit sodium →

• Aim for less than **10% DV sodium.**

3. Limit fibre →

• Aim for less than **3 grams (12%) fibre**, if phosphorus is not listed on the label.

4. Limit phosphorus

• If phosphorus is listed, aim for less than **4 to 6% phosphorus in cereals and breads.**

Ingredients:

Flour, shortening (vegetable oil, modified palm oil), sugars (sugar, glucose-fructose), salt, malted barley flour, baking soda, ammonium bicarbonate, monocalcium phosphate, soy lecithin, papain, amylase, protease

Contains: wheat, barley, soy

Adding calories and flavour

It is important to eat enough calories each day. Calories are needed to prevent your body from breaking down protein for energy, which can cause weight loss. Your dietitian will talk with you about your calorie needs and using nutritional supplements, if needed.

The following foods are low in sodium, potassium, and phosphorus. They **can be used** to give extra calories and flavour:

- **Sugar:** white, icing, brown (1 tbsp), honey, corn syrup, table syrup**
- **Sweeteners:** Equal®, Splenda®, stevia
- **Candy:** gum, Lifesavers®, mints, jelly beans, lollipops, hard candies, jujubes, gum drops, marshmallows, marshmallow fluff, mint patties (2 pieces), Skittles®, Jolly Ranchers, Starburst®, red licorice (2 sticks)**
- **Sauces:** cranberry, jalapeño, mint or red pepper jelly, VH® Cherry, VH® plum, or VH® sweet and sour dipping sauce (2 tbsp), Mr. Spice® Ginger Stir Fry Sauce (2 tbsp), Tabasco® sauce, vinegar, mustard, ketchup, relish (1 tsp), lemon juice
- **Fats:** margarine (SF or regular), vegetable oil, whipped cream, Cool Whip, sour cream (2 tbsp)
- **Spices:** All herbs and spices that do **not** contain sodium, like:
 - › President's Choice®, Club House®, and Mrs. Dash™ No Salt Added Spices
 - › Mrs. Dash™ No Salt Added mixes (taco, chili, or meatloaf)
 - › Hot chili peppers (1 tbsp)

**** If you have diabetes, avoid high sugar foods.**

Fluid

- You should gain less than _____ kg or _____ lbs between dialysis treatments.
- The amount of fluid you can have will depend on your urine (pee) output.
- Too much fluid can cause:
 - › Quick weight gain (fluid weight, not body weight)
 - › High blood pressure
 - › Swelling of your hands and feet
 - › Fluid in your lungs
 - › Added stress on your heart
- The amount of weight you gain between dialysis treatments tells your health care team whether you are taking in too much fluid.
- **Each day, you can drink 500-1000 ml (2-4 cups) of fluids, plus an amount equal to your previous 24-hour urine output, unless your primary health care provider (doctor or nurse practitioner) has told you otherwise.**
- **Anything that is liquid at room temperature is a fluid (like popsicles, ice cream, Jell-O®, pudding, soup, ice cubes).**

You may eat the foods listed below **within your daily fluid allowance:**

- › Lemon and lime juice
- › Kool-Aid, lemonade**
- › Fruit-flavoured drinks (crystals, frozen cans, or bottled)**
- › Jell-O®, no name brand
- › Fruit-flavoured water drops (like MiO, Nesfruta™)
- › Cranberry juice or cranberry cocktail**
- › Non-cola pop (like Sprite®)
- › Sherbet, popsicles**
- › Weak tea (steep for no more than 3 minutes)
- › Coffee, 1 cup a day
- › Wine (dry white), 3 oz
- › Hard liquor (like rum, rye)

**If you have diabetes, choose the sugar-free version of this fluid.

Tips for controlling your fluid intake

- Each morning, measure out the amount of fluid you are allowed to have that day in a pitcher or jug. Every time you eat or drink a fluid, empty that same amount from the pitcher. Once the pitcher is empty, you cannot have any more fluids that day. Use small cups and glasses for drinks.
- Rinse your mouth with water, but **do not swallow it**.
- Commercial dry mouth remedies (like Biotène®) may help.
- Rinse your mouth with cold mouth wash.
- Brush your teeth more often during the day.
- Drink ice-cold liquids. They satisfy your thirst better than liquids at room temperature.
- Suck on ice cubes instead of drinking water.
- Suck on hard candy or mints, or use chewing gum to keep your mouth moist (sugar-free if you have diabetes).
- Try sour candy or lemon drops.
- Squeeze lemon juice in your ice cubes to quench your thirst.
- Avoid salt and salty foods to help control your thirst.
- If you have diabetes, try to keep your blood sugar under control. High blood sugar will make you more thirsty.

High sodium foods to avoid

Snack foods

- Salted crackers
- Salted party snacks, like:
 - › Cheezies
 - › Nuts
 - › Salted popcorn (air-popped only)
 - › Chips
 - › Pretzels

Quick foods (convenience foods)

- Packaged frozen entrées/meals (like microwave dinners)
- Packaged or boxed foods with more than 15% DV sodium per serving
- Battered frozen fish or chicken
- Bottled or canned spaghetti and pasta sauces
- Canned beans, stews, soups, gravies
- Dry packaged soup mixes, instant noodle packages
- OXO®, bouillon
- Canned seafood (sardines, kippers, oysters)
- Canned tuna and salmon (choose low sodium or packed in water, drain and rinse before eating)
- Canned meats:
 - › Devilled ham
 - › KAM®, SPAM®
 - › Flakes of turkey, ham, or chicken
 - › Potted meats, pâtés
- Fast-food items (like burgers, fries, hot dogs, fried chicken, pizza)
- Restaurant food (All restaurant food is higher in sodium than food made at home. Ask your dietitian for information about eating at restaurants.)

Dairy products

- › Processed cheese (cheese slices, Kraft Cheez Whiz, Velveeta®)
- › Blue, feta, or parmesan cheeses

Salted, smoked, pickled, or cured meats (these are high in sodium and phosphorus)

- › Bacon
- › Ham, other deli meats
- › Salted, dried, or smoked fish
- › Bologna
- › Hot dogs
- › Sausages
- › Corned beef

Vegetables

- › Canned vegetables (unless they are SF)
- › Sauerkraut
- › Scalloped potato mix, instant potatoes
- › Vegetable juices

Grain products

- › Baking mixes (like pancake and biscuit mixes)
- › Breads, cereals, and crackers with more than 10% DV of sodium per serving
- › Seasoned pasta mixes (Hamburger Helper™, Kraft Dinner)
- › Seasoned rice mixes (Rice-a-Roni®, Sidekicks®, Ben's Original Fast and Fancy™)

Condiments

- › Chili sauce
- › Salsa
- › Taco and picante sauce
- › Soy sauce
- › Steak sauce, BBQ sauce
- › Pickles, olives
- › Relish
- › Meat tenderizers
- › Celery salt
- › Garlic salt
- › Onion salt
- › Seasoned salt
- › Seasoned pepper
- › Steak spice
- › Ac'cent® Flavor Enhancer, M.S.G. (monosodium glutamate)
- › Any mixed spice that has salt

Foods with higher potassium content

Your blood potassium level goal is less than 5.5 on hemodialysis.

*All fruits and vegetables have potassium.

*You may be able to eat some of these foods. Ask your dietitian.

Fruits higher in potassium:

- › Avocados
- › Bananas
- › Cantaloupes
- › Currants
- › Dried fruits (all)
- › Grapefruit juice
- › Guavas
- › Honeydew melons
- › Kiwis
- › Mangos
- › Nectarines
- › Oranges, orange juice
- › Papayas
- › Pomegranates, pomegranate juice
- › Prune juice
- › Tamarinds
- › Tangelos

Vegetables higher in potassium:

- › Artichokes
- › Bamboo shoots
- › Beet greens
- › Broccoli
- › Brussels sprouts
- › Dandelion greens
- › Lima beans
- › Parsnips
- › Potatoes
- › Pumpkins
- › Spinach
- › Squash
- › Sweet potatoes
- › Swiss chard
- › Tomatoes
- › Vegetable juice

Other foods higher in potassium:

- › Dried peas, beans, and lentils
- › Bran cereals
- › Wheat germ
- › Brown sugar
- › Chocolate
- › Molasses, blackstrap molasses
- › Salt substitutes (like Windsor[®] Half Salt[™] or NoSalt[®])

Milk

- › Cheddar cheese (SF)
- › Baking powder (low sodium)
- › Cream of tartar
- › Coconut, coconut milk
- › Nuts
- › Gravy

Phosphorus

- Your kidneys help to balance the levels of phosphorus and calcium in your body.
- When your kidneys are not working well, phosphorus can build up in your blood.
- **High phosphorus can cause:**
 - › Weak bones that break easily, painful joints
 - › Itchy skin
 - › Calcifying (hardening) of the blood vessels
- **You can keep your phosphorus and calcium in balance by:**
 - › Avoiding foods high in phosphorus.
 - › Taking your phosphate binders with meals and snacks (Tums[®], calcium carbonate, Renagel[®], Fosrenol[®], milk of magnesia, PhosLo[®]).
 - › Reading labels – choose grain products with less than 4-6% DV for phosphorus, or not more than **12% fibre (less than 3 grams)**, if the phosphorus amount is not on the label.
 - › Following your nutrition guidelines.

High phosphorus foods to limit or avoid:

- › Dairy products (milk, yogurt, cheese)
- › Nuts, nut butters, seeds, lentils, dried peas, beans
- › Whole grain breads and cereals (like natural bran, Kellogg's[®] All-Bran Original[®], Kellogg's[®] All-Bran Buds[®], Kellogg's[®] All-Bran Flakes[®], Quaker Oat Bran[®], Kellogg's Raisin Bran[®])
- › Self-rising flour, baking powder
- › Cake doughnuts, muffins, tea biscuits, pancakes, waffles (store bought or mixes)
- › Chocolate
- › Organ meats (like liver or kidney), sardines, canned salmon **with bones**
- › Processed foods (like hot dogs, bologna, pizza)
- › Coca-Cola[®], Pepsi[®], Dr.Pepper[®], and other colas
- › Beer

***90-100% of phosphate added to foods is absorbed by the body.**

Emergency meal plan

- This sample 3-day menu is for you to use in case of an **emergency or natural disaster** when you may not be able to make it to dialysis.
- This menu is more strict than your usual nutrition guidelines. This will help you to control the buildup of minerals (potassium, sodium, phosphorus, and urea) in your blood.
- Fluid is limited to **500 ml (2 cups or 16 oz)** a day to prevent getting too much fluid.

Breakfast	Lunch	Supper
½ cup milk*	Sandwich with 1-2 oz protein, margarine, and mayonnaise	Sandwich with 2 oz protein, margarine, and mayonnaise
½-¾ cup cereal	½ cup vegetables	½ cup fruit
1 tbsp sugar	½ cup fruit	½ cup juice
½ cup fruit	½ cup juice	

Snack	Snack	Snack
Cookies or crackers	Cookies or crackers	Cookies or crackers
Honey, jam, jelly, margarine	Honey, jam, jelly, margarine	Honey, jam, jelly, margarine
Candy, 10 pieces	Candy, 10 pieces	Candy, 10 pieces

*You can use regular milk if the power is on.

If there is **NO** power, use:

- › **2 tbsp** of powdered milk in ½ cup water

OR

- › ¼ cup canned (evaporated) milk with ¼ cup water

****You should already have a prescription for Kayexalate® (to keep your potassium down in an emergency). Use as directed by your dialysis team.**

For more information on food safety, please talk to your dietitian.

Grocery list

Milk: regular (if power is on), powdered or canned (if no power)

Drinks: bottled water, non-cola pop, cranberry juice, powdered drink mix with 1/2 cup of water, or flavoured drops for water (like MiO, Nesfruta™)

Cereals: Kellogg's Corn Flakes®, Kellogg's® Rice Krispies®, Special K®, Kellogg's Frosted Flakes®

Bread: white, hamburger buns, dinner rolls

Crackers (unsalted): plain rice cakes, melba toast

Cookies: vanilla wafers, graham crackers, Social Tea®, arrowroot

Vegetables: mini carrots, green beans (canned, low sodium), corn, peas

Fruit: fruit cups (like applesauce), pears, fruit cocktail, mandarin oranges, apples (small)

Sandwich ideas: low sodium tuna or salmon (remove bones), peanut butter, egg

Candy: peppermints, jellybeans, skittles, jujubes, hard fruit-flavoured candies, gumdrops, marshmallows, chewing gum

Other: mayonnaise, margarine, sugar, honey, jam, jelly

If you have diabetes:

- Avoid high sugar foods. Use more fats and/or oils for calories.
- Use **sugar-free** juice or pop.
- It is OK to have plain cookies and cake in small amounts when eaten with meals.
- Have sugar, honey, or regular juice available in case your blood sugar is too low.

If you know a storm is coming, be prepared.

- Freeze a jug of water to help keep your fridge and freezer cold.
- If the power is off for a day or more, eat foods from the fridge on the first day.
- Boil eggs for egg sandwiches or to eat on their own.

