

Nutrition Guide for Chronic Kidney Disease

This information is for persons not on dialysis.

Renal
Dietitians

a dietetic practice group of the
Academy of Nutrition
and Dietetics



Introduction

For people who have Chronic Kidney Disease, nutrition plays an important role in helping you feel better and may prevent your kidney function from worsening.

When you develop kidney disease, your body cannot get rid of extra nutrients, toxins, and fluid. These can buildup in your bloodstream and body organs and cause you to not feel well. By making changes in your diet, you can control some of the buildup of wastes in your body and prevent further damage to your kidneys.



Depending on the degree of your kidney disease, nutrients in your diet that you may need to be more aware of are protein, potassium, phosphorus, sodium, and fluids.

Protein

The body uses protein to build and maintain bones, muscle, skin, and hair. It is also needed to help prevent and fight infections. With kidney damage, you need a lower-protein diet to help prevent your kidney function from worsening.

Limit your protein to _____ ounces (oz.) total per day, spread out over three meals.

Meats, seafood, eggs, and legumes (dried beans, peas, and lentils) are good sources of protein. Choose fresh, unsalted, and unprocessed sources of protein from the following list:

	Meats, Seafood, & Eggs	Legumes
<p>●●● The terms “Enhanced” and “Extra Tender” on meat packages means that the meat has been injected with salt and/or phosphorus and should be avoided. Those labeled “All Natural” are usually safest.</p> 	<p>Beef, lean Chicken, skinless Egg or egg whites Fish Lamb Pork, lean or pork loin Shellfish Turkey, skinless Veal Wild Game</p>	<p>Beans (such as black or kidney) Peas (such as split peas) Lentils</p>  <p>●●● Plant proteins may have higher levels of potassium and phosphorus, so ask a dietitian how to fit them in your meal plan.</p>

If you have questions about your food choices, please check with your dietitian.

Potassium

The muscles and nerves in your body use potassium to function. Too much or too little potassium can prevent your heart muscle from working properly. **If you have been told to limit your potassium intake**, you will want to be especially careful about eating fruits and vegetables that are high in potassium.

The following list of fruits and vegetables are divided into two categories: Low and High Potassium. You will want to choose fruits and vegetables low in potassium and limit your intake to **no more than 5 servings daily**.

Low Potassium

The following fruits, fruit juices, and vegetables contain less than 200 mg. of potassium per serving.

Fruits		Vegetables	
One serving of fruit is equal to ½ cup fresh or canned, or 1 small piece of fruit.		One serving of vegetables is ½ cup cooked or 1 cup raw .	
Apple (1 small)	Lemon/Lime (1 medium or juice)	Alfalfa sprouts	Leeks
Apple juice	Peach (canned, fresh nectar)	Asparagus	Lettuce
Applesauce	Pear	Bamboo shoots (canned)	Mustard greens (cooked)
Apricot nectar	Pineapple (canned, fresh)	Beans: green or yellow (cooked)	Okra (cooked)
Berries (all types)	Pineapple juice	Cabbage	Onions
Cherries	Plum	Carrots (canned or cooked)	Peppers: green, red, or chili (cooked)
Cranberry juice cocktail	Raspberries	Cauliflower (cooked)	Radishes (raw)
Fig (1 large)	Tangerine/Clementine (1 small)	Celery (8" stalk)	Spinach (raw)
Fruit cocktail	Watermelon (½ cup)	Corn (or one 6" ear)	Turnip greens
Grapes (17 small)		Cucumber	Turnips (cooked)
Grape juice		Eggplant	Water chestnuts (canned)
Grapefruit (½ large)			
Grapefruit juice			

High Potassium

If you have been told to reduce your potassium intake, you may need to **limit** the following foods. The following fruits and vegetables contain 200 mg. or more of potassium per serving. Ask your dietitian how often you can enjoy these:

Fruits		Vegetables		
One serving of fruit is equal to ½ cup fresh or canned, or 1 small piece of fruit.		One serving of vegetables is ½ cup cooked or 1 cup raw .		
Banana (1 small)	Oranges & orange juice	Artichokes	Potatoes	Sweet potatoes
Dried fruits	Papaya (1 small)	Avocado	Pumpkin	Swiss chard
Melon: cantaloupe & honeydew	Pomegranate & pomegranate juice	Bamboo shoots (fresh)	Rutabagas	Tomatoes (canned, fresh, juice, paste)
Kiwi (1 medium)	Prunes & prune juice	Beet greens	Spinach (canned, cooked)	Turnips (raw)
Mango (1 small)		Broccoli	Summer squash (raw): crookneck, straight, yellow, zucchini	Winter squash: acorn, butternut, hubbard
Nectarines		Brussels sprouts		
		Dried beans & peas		
		Parsnips		

Phosphorus

The kidneys mainly control the balance of phosphorus in the body. When phosphorus builds up in the body, it causes calcium to come out of your bones. This can lead to weak bones that can be painful and break easily. Too much phosphorus in your blood can also lead to heart disease.

Low Phosphorus

If you have been asked to limit phosphorus in your diet, you will want to choose foods low in phosphorus, including the following:

Milk Substitutes One serving is ½ cup	Breads, Cereals, & Grains Servings are listed below	
Almond milk Rice milk, un-enriched Frozen non-dairy desserts: fruit ices, popsicles, snow cones <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>●●● If you have been told that your phosphorus is high and you are ordered to take a phosphorus binder, take it as directed, usually during every meal and/or snack</p> </div>	Angel food cake (½ cake) Animal crackers or vanilla wafers (5) Bagel (½) Bread: French, Italian, light rye, sourdough, white(1 slice) Bun (sandwich) Cake: plain (2x2 inch), homemade Cereals, ready-to-eat, except bran, oat-based, or whole wheat (¾ cup) Cooked cereals, except oats or instant (½ cup) Cookies: apple, berry, butter, lemon, shortbread, sugar (2 2-inch diameter) Crackers, unsalted (6)	Danish pastry or sweet roll (small) Donut, cake (1) Dinner or hard roll (small) English muffin (½) Flour tortilla (6-inch) Graham crackers (3 squares) Melba toast Muffin (small) Pasta: macaroni, noodles spaghetti (⅓ cup) Pita pocket (½ 6-inch diameter) Popcorn, plain, unsalted (3 cups) Pretzels, unsalted (¾ ounces) Rice, white (⅓ cup) Roll, white (1)

High Phosphorus

Added Phosphorus: Foods with added phosphorus are more harmful than foods with natural phosphorus. Use the ingredient list to find out if a food contains phosphorus additives. If you find words that contain “phos” (such as calcium phosphate), then the item contains added phosphorus. **Read food labels to limit foods with “phos” in the ingredients, such as:**

Beverages: colas, canned or bottled teas Biscuits Boxed foods Cake & cake mixes Cheese (processed)	Cocoa Fast foods Frozen foods: dinners, potatoes Gas station foods Meats (fresh, frozen, processed) Muffins	Non-dairy creamers Pancakes and waffles Salad dressings Seafoods (fresh or frozen) Soups (canned)
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Natural Phosphorus: Talk to your dietitian about how these foods with natural phosphorus fit into your diet.

Milk Products			Breads, Cereals, & Grains	
Cheese (natural) Cottage cheese Cream soup Custard Eggnog Fudgesicles Half-n-half	Ice cream, ice cream bars or sandwiches Light cream Milk Milk: condensed or evaporated	Milkshakes, malts, ice cream sodas Pudding Soymilk Yogurt: frozen or dairy	Bran & whole wheat cereals Bread: bran, oat, pumpernickel, rye, whole wheat Cheesecake	Corn tortillas Cornbread Oats & oat-based cereals Sandwich cookies: chocolate

Sodium

Sodium (short for sodium chloride) is another name for **salt**. You should limit sodium/salt in your diet to prevent excess fluid from building up in your body. When you retain too much fluid, your blood pressure will go up, you may have difficulty breathing, and your heart and kidneys may be damaged.

Low Sodium Foods	High Sodium Foods
Breads, buns, rolls Casseroles, made "from scratch" without much added salt Desserts and Pastries, made "from scratch" without much added salt Fruits (canned, fresh, frozen) Meats (fresh, frozen) without added sodium Seasonings, without salt or sodium Soups, homemade without much added salt Unsalted crackers and snacks Vegetables (fresh, frozen, canned) without added salt	Broths and bouillon Boxed foods Cheese and cheese spreads (processed) Crackers and snacks that are salted Fast food (ask your dietitian which choices are better for you) Meats (canned, cured, luncheon, processed) Frozen dinners, casseroles, & potpies with higher sodium Seasonings with added salt such as salt blends Soy sauces and other Asian sauces Soups (canned, prepared) Vegetables (canned)



●●● "From scratch" or "homemade" means to cook food from its most basic ingredients, and avoid using pre-made or boxed ingredients.



●●● Read ingredient labels. Some lower sodium foods contain **potassium chloride** as a substitute for salt. These should be **limited**.

Final Suggestions

- ✓ The above lists of foods do not include everything, so be sure to check with your dietitian about other foods not in this handout.
- ✓ Do not use salt substitutes or foods with potassium chloride. Read the label for ingredients.
- ✓ Avoid foods with added phosphorus, especially in convenience foods such as frozen meals, boxed foods, and soft drinks.
- ✓ You can better control the amount of salt and phosphorus in your diet by preparing foods "from scratch".
- ✓ Look for recent cookbooks designed for individuals with chronic kidney disease.
- ✓ By reducing your intake of the above nutrients building up in your body, you may feel better, improve your health, and may delay worsening of kidney disease.
- ✓ If you have not yet seen a dietitian and would like to know what other foods you can eat, ask your doctor for a referral to a registered dietitian (RD) or a Registered Dietitian Nutritionist (RDN) for medical nutrition therapy.