

HELPFUL TIPS
TO
MANAGE YOUR
RENAL
DIET



Good nutrition

is important for everyone, especially if you have kidney disease. Getting certain nutrients in the right amounts can make a big difference in how you feel – and in preserving your kidney function. Not all people with kidney disease follow the same diet. The cause of your disease, your health status, and the level of your kidney function all impact your dietary treatment. Your health care team or dietitian will recommend a meal plan to meet your individual needs.



What you eat and drink affects your kidneys

When you eat food, it breaks down in your stomach and intestines. The nutrients from the digested food are then carried through the blood to your body's cells where they are used. The cells then put waste products back into the blood which carries it to the kidneys. The kidneys purify the blood to remove these wastes, or by-products, as well as extra water. Then the wastes are removed from the body via urine.

Your kidneys also regulate your body's levels of sodium, phosphorus, and potassium – key nutrients you need in small amounts. As kidney function declines, their ability to filter and regulate these nutrient levels diminishes, causing the build-up of toxins in the body and dangerous imbalances in mineral levels.

Foods or beverages that are high in protein, potassium, sodium, or phosphate may be problematic. Eating protein-rich foods can produce excess waste and strain the kidneys. Foods containing large amounts of potassium, sodium, or phosphorous can increase the chance that your body's mineral levels will become unbalanced. Fluid intake may also be important for you, since the kidneys are responsible for regulating the body's total water volume.

Controlling what you eat and drink will make it easier for the kidneys to do their job – and help you feel better! The following guidelines will help you make delicious, nutritious food choices while following your renal diet plan.

Managing Your Nutrient Intake

Your dietitian will work with you to develop an eating plan that suits your particular health needs and dietary preferences. In most cases your plan will focus on the nutrients listed on the following pages.

Protein

Protein is important for everybody. Your brain, muscles, blood, skin and other body tissues are made primarily of protein. The components of protein, called amino acids, are essential for the activities of every cell in the body. Protein also helps your body repair itself and fight disease.

As a general rule, most Americans eat more protein than their bodies need. A waste product called urea is produced when the body breaks down dietary protein. Healthy kidneys convert urea into urine, which is eliminated, thus ridding the body of the waste. When kidneys don't work at their full capacity, protein intake may need to be lowered to compensate for their decreased function. This helps slow further damage to the kidneys and limit the accumulation of urea in the body. When kidney function is severely impaired, you may require dialysis. Dialysis will help eliminate excess urea, but you may also lose protein during the treatment process. In this case, you will need to eat more protein.

Choosing protein sources which are low in cholesterol and saturated fat is important for heart health. Also, some studies indicate that controlling the body's cholesterol levels (by diet and/or medication) may help preserve your remaining kidney function.



Choose:

- Fish fillets, water-packed canned tuna that has been rinsed (to remove some sodium)
- Lean cuts of meat that have been trimmed of visible fat, lean ground beef (10% fat)
- Egg whites and egg substitutes (3 eggs per week limit)
- Chicken, turkey, or Cornish hens without skin

Try not to use:

- ◆ Fatty cuts of meat (spare or short ribs, fatty beef cuts, regular ground meat)
- ◆ Fish canned in oil
- ◆ More than three eggs per week
- ◆ Fatty poultry (duck, goose)
- ◆ Processed meats (cold cuts, liverwurst, sausages, hot dogs, bacon)



Phosphorus

Phosphorus is a mineral that can build up in the blood when kidney function is impaired. High blood phosphorus levels will ultimately pull calcium from your bones, making them weak and more easily broken. Some studies indicate that high phosphorus levels can cause damage to the kidneys, hastening the decline. Therefore, it's important to limit your phosphorus intake. Do not eat foods that indicate they provide 20% or more of the RDA for phosphorus on its label. Getting adequate calcium while limiting phosphorus in the diet can be tricky because foods that are good calcium sources, such as dairy products, are usually high in phosphorus, too. Vitamite[®] nutritional beverage is a perfect addition to your renal diet because it provides much-needed calcium without lots of phosphorus. Your dietitian may also suggest you take a calcium supplement.



Lower phosphorus foods:

- Vitamite[®] nutritional beverage as a milk substitute
- Non-dairy whipped topping
- Small amounts of cream cheese or sour cream (2 Tbs./day); limit ice cream to 1/2 cup/day
- Breads that are not high in fiber (white, Italian, French, sourdough, rye)
- Low sodium crackers that are not high in fiber; rice cakes
- Cold cereals that are not high in fiber*
- Hot cereals that are not high in fiber*
- Plain cakes and cookies made without nuts, peanut butter, oatmeal
- Some fruits, fruit juices and vegetables*
- Unsalted popcorn
- Margarine or small amounts of butter, vegetable oils
- Chocolate *flavored* products

Higher phosphorus foods:

- ◆ Regular dairy products (milk, cheese, yogurt)
- ◆ Nuts and nut butters (including peanuts and peanut butter)
- ◆ Soybeans, tofu
- ◆ Whole grain or high fiber cereals, crackers, and breads
- ◆ Dried beans and peas (split peas, lentils, kidney beans, black beans, pintos, etc.)
- ◆ Real chocolate

**ask your dietitian for recommended brands*

Potassium

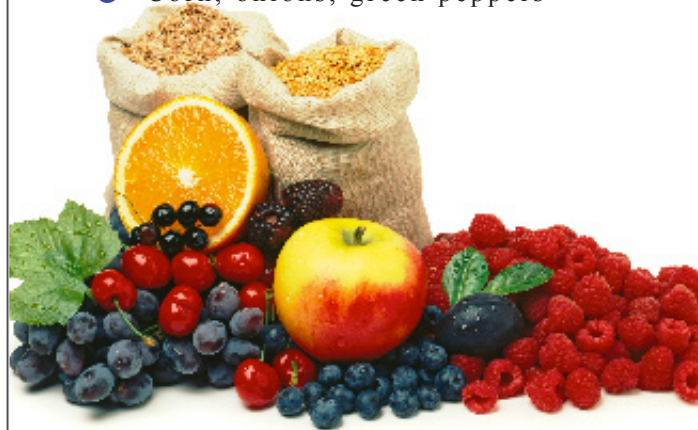
Potassium is a mineral found naturally in many fruits, vegetables, and nuts. Healthy kidneys (those that pass more than a quart of urine each day) remove excess potassium from the blood, but unhealthy kidneys may not remove enough. In some types of kidney disease your body will retain too much potassium, which can be dangerous for your heart and muscle function. If you are on hemodialysis, controlling dietary potassium is very important.

Potassium levels in foods vary widely. In general, canned fruits and boiled vegetables may have less potassium than their raw counterparts, as potassium is extracted from the produce during food processing. You can remove some of the potassium from fresh vegetables at home by cutting the vegetable into small pieces and soaking them in warm water for at least four hours before cooking in fresh water. This process is sometimes called “dialyzing” the food.

Interestingly, many high phosphorus foods are also high in potassium, such as dairy products. However, Vitamite[®] nutritional beverage contains less than half the potassium and about one-third the phosphorus of regular milk, making it an ideal choice for your renal diet. Be aware that food manufacturers are not required to list the potassium content of foods on the labels. A food item may contain potassium even if it is not stated on the label.

Lower potassium foods:

- Vitamite[®] nutritional beverage
- Cranberries, cranberry juice, and cranberry sauce
- Apples, apple juice, and applesauce
- Berries, grapes/grape juice, lemon, lime, tangerine, pineapple
- Canned fruit cocktail, peaches, pears
- Cabbage, lettuce
- Corn, onions, green peppers



Higher potassium foods:

- ◆ Some dairy products
 - ◆ Potatoes, sweet potatoes
 - ◆ Squash, pumpkin
 - ◆ Tomatoes, tomato juice, and tomato sauce
 - ◆ Greens (spinach, collards, etc.)
 - ◆ Broccoli, brussels sprouts
 - ◆ Apricots, banana, oranges/juice
 - ◆ Melons (cantaloupe, honeydew, etc.)
 - ◆ Dried fruits (apricots, prunes, dates, figs, raisins, etc.)
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Sodium

Sodium is a mineral that many of us are familiar with – it’s a main ingredient in table salt. Sodium is found in many foods and beverages, but those containing the highest amounts are usually processed foods or have salt added to them. Some people are extremely salt sensitive, and for them excess sodium can cause an increase in blood pressure. Eating salty foods also causes us to drink more fluid, and can contribute to edema (water retention and swelling). Therefore, sodium is usually restricted on most renal diets, regardless of hemodialysis treatment.

Generally, foods that are highest in sodium are processed foods and processed meats. The sodium content of foods is listed on the product labels. Choose foods that indicate they contain 10% or less of the RDA for sodium, and select the product that has the lowest sodium when several brands are available. Be aware that reduced sodium products, as well as those that say “light” or “lite” sodium on the label may still contain more sodium than is good for you. Also, special low sodium foods may contain extra potassium (potassium chloride is used in place of sodium chloride), so it’s best to avoid them. Fresh foods are definitely the best option for your diet plan.

Lower sodium foods:

- Fresh, frozen or canned fruits, fruit juices
- Fresh or frozen vegetables (without sauces)
- Fresh fish, meat, and poultry that hasn't been smoked or cured
- Rice or pasta cooked without salt
- Hot cereals (not instant)
- Syrups, vegetable oils, and unsalted margarine/butter
- Herbs, spices, and blends without salt

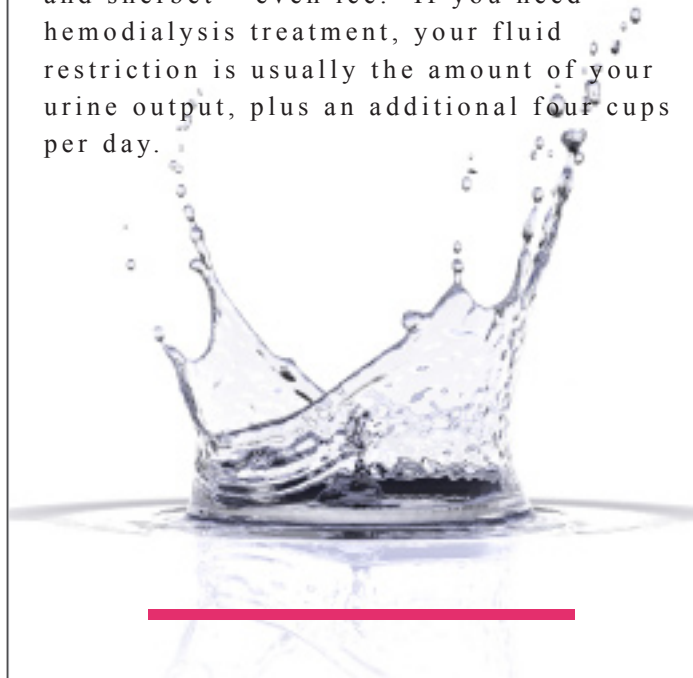
Higher sodium foods:

- ◆ Salt in any form (seasoned salt, garlic salt, onion salt, seasoning blends that contain salt or sodium, etc.)
 - ◆ Bouillon or consommé cubes, canned broth and soups
 - ◆ Sauces (barbecue sauce, soy sauce, fish and oyster sauce, black bean sauce, etc.)
 - ◆ Foods in brine (pickles, relish, olives, sauerkraut, etc.)
 - ◆ Salted snacks (pretzel, chips, salted nuts, etc.)
 - ◆ Most cheese (they're also high in phosphorus)
 - ◆ Convenience foods (frozen dinners, boxed rice/pasta mixes, shelf-stable entrees, etc.)
 - ◆ Processed meats and fish (bacon, sausage, hot dogs, luncheon meats, anchovies, salt cod, smoked salmon, etc.)
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A word about fluids

All liquids that you drink are eventually converted to water in your body. The kidneys regulate your body's fluid balance in two ways, by excreting excess water or by concentrating your urine to prevent dehydration. When kidneys start to fail, their ability to perform these functions is hindered, and fluid volume overload can result. People with kidney disease may experience water retention, swelling (edema), and shortness of breath. The heart and lungs are burdened by excess water in your body.

Your physician might prescribe a diuretic to help your body get rid of excess water. He may also advise you to limit your fluid intake from water, juices, tea, coffee, soda, and soup. Food that becomes liquid at room temperature also count as fluid, including gelatin and sherbet – even ice. If you need hemodialysis treatment, your fluid restriction is usually the amount of your urine output, plus an additional four cups per day.



Calories

When you're limiting your protein intake, as on a renal diet, it's important to get enough calories. This "spares" the protein so it can be used for its body-building functions, instead of being used for energy. Foods with more sugar and fat provide calories without adding a lot of protein. If you are a diabetic, you will need help from your dietitian to get the proper balance of nutrients in your diet without adversely impacting blood glucose control.



Higher calorie foods:

- Sugars, syrups, honey
 - Fats (oils, margarine, lower sodium salad dressing, non-dairy whipped topping)
 - Beverages with sugar (natural or added, including lemonade, low potassium fruit juices)
 - Non-chocolate candies (jelly beans, gum drops, hard candies)
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Ideas for Using Vitamite in Your Renal Diet Plan

- Use Vitamite[®] instead of milk on cold cereal. If you need extra calories, choose sweetened cereals.
- Make cooked pudding with Vitamite[®] instead of milk. Just follow the directions on the box for a quick and tasty treat! For mousse, fold a non-dairy whipped topping into the pudding with sliced strawberries or canned, sliced peaches to make a parfait dessert.
- Make an easy, satisfying cream soup with Vitamite[®]. Simply melt $\frac{1}{4}$ cup of margarine in a pan and cook 1 small chopped onion in the margarine until tender. Stir in 3 tablespoons of flour. Add 3 cups of Vitamite[®] and stir until it thickens and boils, stirring constantly. Add 2 cups pureed vegetables (such as carrots or peas) or unsalted, canned or frozen corn. Add spices to taste.
- Warm up with old-fashioned cocoa, combine 4 teaspoons of sugar, 1 tablespoon cocoa powder (now cocoa mix) and 2 tablespoons hot water in a small saucepan. Simmer on low heat until warm but not boiling. Add extra calories by topping with marshmallows, marshmallow fluff, or non-dairy whipped topping.

- Add flavored syrups to Vitamite[®] and serve either hot or cold. The coffee aisle of the supermarket has many gourmet flavors such as vanilla, hazelnut, mint, and raspberry.
- For coffee latte, add warmed Vitamite[®] to hot coffee.
- Make a smoothie by combining 1 cup of Vitamite[®] with $\frac{1}{2}$ cup fresh or frozen berries or canned peaches in a blender; add sugar to taste. You can make the smoothie thicker by adding ice cubes when blending.
- Whip up a frosty milk shake by combining $\frac{3}{4}$ cup of Vitamite[®] with $\frac{1}{2}$ cup vanilla ice cream in a blender; add a flavored syrup if you like.



For additional information on using Vitamite, visit our website:

www.sensoryeffects.com

Want more information?

- The American Kidney Fund
6110 Executive Boulevard
Suite 1010
Rockville, MD 20852
800/638-8299
<http://www.akfinc.org/>
- The National Kidney Foundation
30 East 33rd St.
New York, NY 10016
800/622-9010
<http://www.kidney.org/>
- The National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)
<http://www.niddk.nih.gov/>

Vitamite[®]
Nutritional Beverage

www.sensoryeffects.com

- Diehl Food Ingredients, Inc.
24 North Clinton St.
Defiance, OH 43512
1-800-443-3930
E-mail: info@sensoryeffects.com