




KIDNEY DISEASE AND THE RENAL DIET

NUTRITION GUIDE

YOUR GUIDE TO HEALTHY EATING

Talk to your doctor or healthcare provider before eating these meals to make sure they are right for you. If you are having an allergic reaction, seek emergency medical attention.





Healthy eating can reduce the risk of developing chronic diseases such as hypertension, diabetes, and heart disease. If you have a chronic disease, eating well can help to manage the disease.

BETTER HEALTH STARTS WITH HEALTHY EATING

Eating is important, even when you don't feel like it. Food provides nutrients your body needs.

- Eat breakfast
- Do not skip meals
- With age, you may feel less thirsty. Drink water often. Milk and 100% fruit juice helps you stay hydrated.
- Drink 1 cup of water with every cup of caffeinated or alcoholic beverage.
- Eat protein at each meal. Protein builds and repairs tissues and helps you fight infection.

Talk with your doctor if you're having trouble eating, are losing weight without trying, or have a change in bowel habits.

3 STEPS TO READING A FOOD LABEL

Nutrition Facts

8 servings per container

Serving size 2/3 cup (55g)

Amount per serving

Calories 230

%Daily Value*

Total Fat 8g 10%

Saturated Fat 1g 5%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 160mg 7%

Total Carbohydrate 37g 13%

Dietary Fiber 4g 14%

Total Sugars 12g

Includes 10g Added Sugars 20%

Protein 3g

Vitamin D 2mcg 10%

Calcium 260mg 20%

Iron 8mg 45%

Potassium 235mg 6%

*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.

Serving Size and Calories

Look at the serving size, the number of servings, and the number of calories per serving. A package may look like one serving but could actually contain two or more servings. The recommended total daily calorie intake for an average adult is 2,000.

Heart Health

Keep numbers in this section low for a healthy heart. For most people, limit saturated fat to 20g per day and cholesterol to 200mg per day.

Is this Food Nutritionally Valuable?

Vitamins and minerals are listed on the food label to help us decide if a food contains important nutrients. If a food has 5% of the Daily Value or less, it is low in that nutrient. If it has 20% or more, it is high in the nutrient. Dietary fiber helps lower cholesterol, helps control blood sugar, and keeps our digestive tracts on the move. Increase fiber intake slowly and drink plenty of water.

WHAT'S IN A HEALTHY EATING PATTERN?

The *2020–2025 Dietary Guidelines* have basic recommendations for a healthy eating pattern.

It includes foods like:

Fruits

Especially whole fruits, such as apple, orange, bananas, grapes, strawberries

Vegetables

A variety of vegetables—dark green, red and orange, legumes (beans and peas), starchy and other vegetables

Protein

A variety of protein foods, such as beef, chicken, pork, fish

Dairy

Fat-free or low-fat dairy, including milk, yogurt, cheese and/or fortified soy beverages

Grains

At least half of which are whole grains, such as brown rice, oatmeal, whole wheat bread, whole grain cereal

Oils

Including those from plants (such as canola, corn, olive, peanut, safflower, soybean and sunflower) and in foods (such as nuts, seeds, seafood, olives and avocados)

It has limits on:

Saturated & Trans Fats

Limit saturated fats to less than 10% of daily calories and keep trans fat intake as low as possible

Added Sugars

Limit to less than 10% of daily calories

Sodium

Limit to less than 2,300 mg a day

Alcohol

Limit to no more than 1 drink per day for women and no more than 2 per day for men



Goals

Sodium

Carbs

Sugar

Potassium

Phosphorus

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CHANGING YOUR EATING HABITS CAN BE CHALLENGING

These are some tips that can help you eat better.

WHEN EATING...

- Focus on your meal.
- Sit at a table when possible.
- Eat small, frequent meals throughout the day.
- Monitor fluid intake

EAT A VARIETY OF FOODS...

- Eat foods from each food group according to your diet.
- Fruits and vegetables should cover half of your plate.
- Select vegetables such as carrots, green beans and green peas.

Adapted from eatright.org

WHEN IMPROVING YOUR EATING HABITS...

CHOOSE HEALTHY CARBOHYDRATES

- Select carbohydrates that are high in fiber.
- Examples of high fiber carbohydrates are oatmeal, unsalted air popped popcorn, whole fruits and vegetables, and whole-grain white bread.

CONTROL YOUR SALT INTAKE

- Cutting salt from your diet can help control high blood pressure.
- Remove the salt shaker from your table.
- Replace salt with pepper, herbs, or seasoning.
- Prepare more meals at home rather than eating out.
- Avoid processed frozen foods and canned goods. Use as many fresh ingredients as possible.
- If you use canned vegetables, rinse them first.

GREAT TIPS FOR READING A NUTRITION LABEL

TIP #1 Read the Label

It's best to choose foods that have less sodium, potassium, phosphorus, sugar and fat.

TIP #2 Check the Number of Servings

Sometimes packaged foods appear to contain a single serving, but they may contain two (2) or more servings.

You should know the number of servings in a package to avoid over eating.

TIP #3 Look for Hidden Sodium

Check the label to see how much sodium is in a single serving.

People who have kidney disease should consume less than 1500 mg of sodium per day.

LOW POTASSIUM FOODS

< 200 mg/serving

For those with kidney disease, it is recommended to limit your intake of high potassium foods, and to choose lower potassium foods more often. It is very important to monitor the portion sizes of foods you eat.

Grains

Bagel, 4"	½ bagel
Bread, white	1 slice
English Muffin	1 each
Oatmeal – reg, quick, instant	½ cup
Rice, white	½ cup
Spaghetti/Macaroni, Cooked	½ cup
Tortilla, Flour or Corn, 6"	1 each

Proteins/Dairy

Eggs, Egg Whites	1 large
Hummus	⅓ cup
Chicken	3 oz
Beef, lean	3 oz
Milk–whole, skim, 1%, 2%	½ cup
Cheese	1 oz

Fruits & Vegetables

Apple, fresh	1 each
Fruits	½ cup
Applesauce, apple juice, blueberries, blackberries, cranberries, cranberry juice, grapes, grape juice, peaches, pears, mandarin oranges, raspberries, strawberries, watermelon, pineapple juice	
Vegetables	½ cup
Cucumbers, eggplant, green beans, green peas, carrots, lettuce, okra, asparagus, cabbage, cauliflower, celery, corn, peppers green/red, turnips	

Beverages

Brewed Tea	¾ cup
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HIGH POTASSIUM FOODS

> 200 mg/serving

For those with kidney disease, it is recommended to limit your intake of high potassium foods, and to choose lower potassium foods more often. It is also very important to monitor the portion sizes of foods you eat.

FOOD	PORTION	POTASSIUM (mg)
Halibut, Tuna, Cod, Snapper	3 oz	480
Tuna Fish, Canned	3 oz	200
Turkey	3 oz	250
Pork	3 oz	244
Potato, Baked	1 med	925
Potato, Boiled	½ cup	255
Beans, Canned	½ cup	595
Broccoli	½ cup	230
Spinach, Cooked	½ cup	420
Tomato & Other Vegetable Juices	½ cup	275
Avocado	½ fruit	487
Banana	1 med	425
Orange, Fresh	1 each	237
Cantaloupe	½ cup	215
Papaya	1 small	391
Raisins or Dates	¼ cup	270
Almonds, Peanuts, Hazelnuts, Brazil, Cashew, and Mixed Nuts	1 oz	200
Peanut Butter	2 tbsp	208
Skim, 1%, 2%, Whole, Buttermilk, Chocolate Milk	1 cup	350–418
Soy Milk	1 cup	287
Yogurt	½ cup	238

UNDERSTANDING PHOSPHORUS

Natural Phosphorus vs. Added Phosphorus

Natural phosphorus is found in meats, dairy, grains and vegetables. Your body **absorbs about half** of this natural phosphorus.

Phosphorus can also be added to a food or drink as a preservative. Your body **absorbs all** the added phosphorus.

Identifying Phosphorus on Food Labels

It is important to read the label of every item you pick up in the grocery store.

Look for ingredients with “phos” or “phosphate” in their names such as phosphoric acid, sodium aluminum phosphate, calcium phosphate.

Added phosphorus is mostly found in processed foods, packaged foods (sauces and instant puddings), fast foods, colas, and teas.

HOW TO CONTROL FLUID INTAKE

- Avoid salty and spicy foods.
- Reduce or avoid salt.
- Spread liquids throughout the day.
- Stay cool. Don't overheat.
- Drink cold beverages instead of hot ones.
- Snack on cold kidney friendly fruits/veggies.
- Make ice cubes of your favorite beverage.
- Sip beverages. Use smaller cups.
- Conquer dry mouth by brushing teeth, using mouthwash and sucking on hard candy or a lemon wedge.

Kidney Friendly Foods that Count as Fluids

- | | |
|----------------------|--------------------|
| • Coffee and Tea | • Milk |
| • Gelatin | • Milk Substitutes |
| • Ice Chips or cubes | • Popsicles |
| • Ice Cream | • Sherbet |
| • Juice | • Sorbet |
| • Soup | |



DID YOU KNOW?

Lunch meat and cheese sandwiches can contain up to **1,000mg** of sodium

Examples:

522 mg/ 2 oz Turkey lunch meat

282 mg 1 slice American Cheese

244 mg for 2 slices white bread

STOCKING YOUR HEART-SMART KITCHEN

Fruits and Veggies

For a wide range of nutrients, go for a colorful medley of fresh produce. You can also stock up on fruits and vegetables that are frozen, canned or dried. Look for products that don't have added sodium, fat or sugar.

Whole Grains

Select whole grain bread, pasta, tortillas, rice and oatmeal.

Lean Proteins

Smart choices include skinless poultry, seafood, and lean cuts of other meats, such as round or loin.

Low-Fat Dairy Products

Go low-fat when it comes to fat when it comes to milk (½ cup) and cheese (1 oz).

Healthy Oils

Reach for unsaturated, heart healthy vegetable oils, such as olive, canola, corn, safflower or sunflower. But remember, they're still high in calories, so use them sparingly.

Adapted from United Healthcare

BLOOD PRESSURE LEVELS

BLOOD PRESSURE normally rises and falls throughout the day. But if your blood pressure stays high for a long time, it can damage your heart and lead to health problems.

Check your blood pressure regularly to know what your normal levels are. Talk to your doctor if you have questions about your blood pressure.

Normal Blood Pressure

<120/80 mmHG

At Risk or Prehypertension

120/80 mmHG–139/89 mmHG

High Blood Pressure

140/90 mmHG or more

Dangerously High

Above 180/20 mmHG

Seek immediate medical attention

BLOOD PRESSURE READINGS

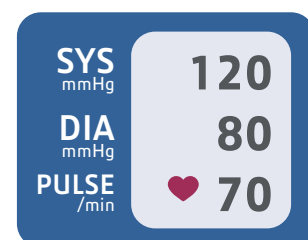
Readings consist of two numbers. Use the explanation below to understand your blood pressure.

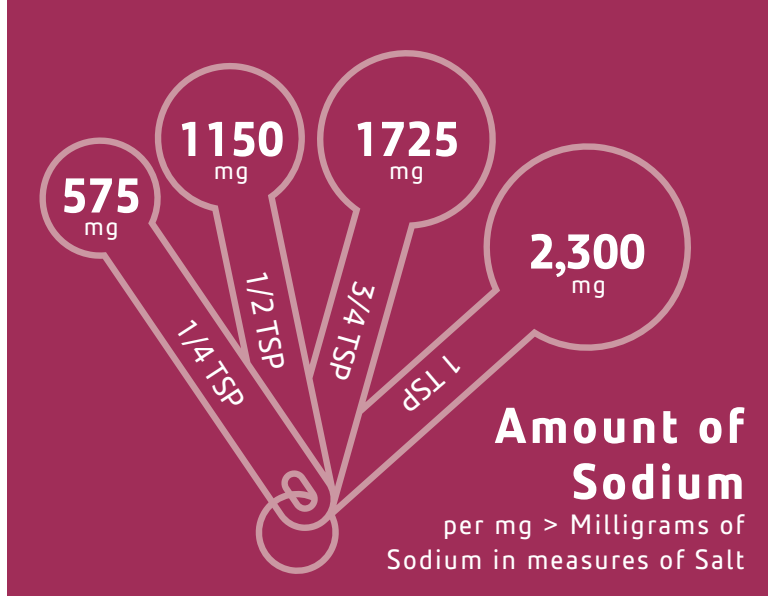
The **FIRST OR TOP NUMBER** of a blood pressure reading:

- Is called systolic blood pressure
- Represents the pressure in your blood vessels when your heart **beats**.

The **SECOND NUMBER** of a blood pressure reading:

- Is called diastolic blood pressure
- Represents the pressure in your blood vessels when your heart **rests**.





LOWER YOUR TRIGLYCERIDES

Consume no more than 10% of your calories from saturated fats. Examples of foods high in saturated fats are:

Fatty Beef	Lard & Cream
Lamb	Butter
Pork	Cheese
Poultry with Skin	Dairy Products Made from Whole or Reduced Fat (2 %) Milk
Beef Fat (Tallow)	

Use heart-healthy polyunsaturated or monounsaturated fats such as sunflower oil, corn oil, soybean oil, olive oil, canola oil, peanut oil, safflower oil, and sesame oil instead of saturated fats.

Do not consume foods with trans fats. Read the nutrition label to omit foods with trans fats.

Eat unrefined carbohydrates because they contain fiber. Examples include brown rice, whole wheat pasta, fruits & vegetables.

Limit added sugars because your body converts extra sugar to triglycerides.

Remember to read the Nutrition Label on ingredients. This label lists the Saturated Fat and Trans Fat content.

WAYS TO LOWER YOUR SODIUM

- Switch from using deli meats to low sodium tuna and roasted chicken.
- Use salt-free seasonings like herbs, spices, lemon juice, and vinegar to add flavor to foods.
- Use low-sodium bread or use less bread.
- Cook rice and pasta without added salt.
- Choose foods and condiments with < 200 mg of sodium.
- Use frozen or packaged meals with 600 mg or less sodium per serving.
- Beware of mustard and soy sauce which are high in sodium.
- Use vinegar instead of bottled dressings.
- Make your own soup. Canned soup is high in sodium.
- Avoid or limit convenience meals such as boxed mixes, frozen dinners, canned foods & prepackaged cookies & muffins.
- Eat more meals at home.
- Eat more fresh or frozen fruits and vegetables.
- Use cheese very sparingly.
- Watch out for salty snacks.
- If you use canned foods, rinse them first to remove some of the sodium.

UNDERSTANDING SODIUM CLAIMS

To meet your daily sodium goal, know the following definitions for nutrient content claims for sodium:

Sodium Free or Salt-free = Less than 5 milligrams sodium

Very Low Sodium = 35 milligrams of sodium or less

Low Sodium = 140 milligrams of sodium or less

Reduced Sodium =
At least 25% less sodium than the original product

Light in Sodium =
At least 50% less sodium than the original product

UNDERSTANDING SATURATED FAT CLAIMS

To meet your daily saturated fat goal, know the following definitions for nutrient content claims for saturated fat:

Saturated Fat Free = Less than 0.5 grams saturated fat and less than 0.5 grams trans fatty acids

Low in Saturated Fat = 1 gram or less saturated fat & no more than 15% calories from saturated fat

Reduced Saturated Fat = At least 25% less saturated fat than the original product and reduced by more than 1 gram of fat

Adapted from The Academy of Nutrition and Dietetics





DID YOU KNOW?

A typical TV dinner can contain as much as

1,800mg of sodium

Be sure to check the food labels to make sure it fits within your sodium goals for the day.

HOW CAN I LOWER MY BAD CHOLESTEROL (LDL-C)?

DECREASE Saturated Fat & Trans Fat By...

- Limiting Saturated Fat to no more than 10% of your daily calories.
- Replacing saturated fats with heart healthy polyunsaturated or monounsaturated fats to lower your cholesterol.
- Aiming for Zero trans fat

LIMIT these Foods High in Cholesterol such as ...

- Egg Yolks
- Meats
- Cheeses

INCREASE Fiber in Your Diet By...

- Eating 5 servings of fruits & vegetables each day.
- Making at least half of the grains that you eat whole grains like whole wheat bread and pasta, & brown rice.
- Focusing on sources of soluble fiber like oats, beans, barley, pears, mangos, & brussels sprouts.

Adapted from patienteducation.osumc.edu

YOU CAN LOWER YOUR LDL-C (BAD CHOLESTEROL) WITH PLANT STEROLS

FOODS THAT CONTAIN PLANT STEROLS ARE...

- Vegetables
- Fruits
- Wheat Germ
- Whole Grains
- Beans (1/3 cup)
- Lentils (1/3 cup)
- Sunflower Seeds
- Vegetable Oils

HOW MUCH PLANT STEROLS DO I NEED?

- Eating at least **2 grams** (2,000 mg) of plant sterols each day may lower your LDL-C by **5% to 10%**.

Adapted from The Academy of Nutrition and Dietetics



CONTROL YOUR WEIGHT

Smart Snacking

Calories from snacks, especially from packaged foods, can add up quickly and lead to weight gain over time.

A serving of fruit or vegetable plus a protein, like 1 oz cheese, 1 boiled egg, or 1/3 cup hummus, is a great way to keep snacks low calorie and still satisfy your hunger between meals.

Moderate Serving Sizes

Avoid large portions & second helpings.

Eat 3 Meals per Day

Skipping meals often results in overeating at the next meal.

Mindful Eating

Keep distractions to a minimum while eating and focus on your food.

Stop eating when you are satisfied.

Avoid eating to satisfy an emotion.

Adapted from patienteducation.osumc.edu

BETTER EATING OUT

Plan ahead to make smart selections at the restaurant.

Main Dish

- Skinless poultry, fish & meat-free options are better choices, such as eggs or egg omelet with vegetables
- Limit red meat
- Broiled, baked, grilled, steamed or poached are best cooking methods

Sides

- Steamed vegetables or rice
- Avoid fried items

Fluids

- Request a small glass, no refills

Salads

- Low-calorie and salt-free or very low sodium salad dressing: salad dressing; Balsamic or Raspberry Vinaigrette
- Lemon is an excellent dressing

Other

- Request all foods be prepared without salt, salted butter, soy sauce; serve condiments and sauces on the side

Drugs

- If you are on phosphate binders, either take prior to leaving house or carry pills to take with meal as directed

Adapted from The American Heart Association

QUICK GLANCE AT PHOSPHORUS IN FOODS

Low Phosphorus Foods

Fresh Fruits

Fresh Vegetables

Rice Milk, unenriched

Breads

Pasta

Rice

Fish

Corn and Rice Cereals

Home-brewed Iced Teas

High Phosphorus Foods (Avoid or Limit)

Dairy Foods

Beans

Lentils

Nuts

Bran Cereals

Oatmeal

Colas and other Drinks with phosphates

Bottled Tea



DID YOU KNOW?

Tomato Juice

Each 8-ounce glass of regular tomato juice can contain

615mg of sodium



6 QUESTIONS TO ASK YOUR DOCTOR

Here are some important heart health questions you might ask your doctor.

Take this list with you to your next checkup.

- What's a **healthy weight** for me? If on dialysis, what is my target weight?
- How much fluid should I consume daily? Protein? Potassium? Sodium? And Phosphorus?
- What should my **blood pressure** be? How often should it be checked?
- What should my **cholesterol and triglyceride levels** be? How often should they be checked?
- Should I be **screened for diabetes**? What should my blood sugar level be?
- What level is my kidney function?

Adapted from United Healthcare

HEALTHY SNACKING

Snacks are okay if they are a smart food choice.

Here is a list of a few ideas for healthy snacking:

Look at the Ingredients, Nutrition Fact Label, and Serving Size

- Fresh produce: apples, blueberries, carrot sticks, cherries, red bell peppers, strawberries
- 1 ounce of cheese or 1 boiled egg
- 2–3 ounces of chicken or tuna salad with low sodium crackers
- Unsalted, air popped popcorn; unsalted pretzels; rice cakes; low sodium tortilla chips; graham crackers; animal crackers; ½ bagel
- Gelatin, popsicle, sherbet, vanilla wafers

Adapted from www.nia.nih.gov/Go4Life



CONSTIPATION AND FIBER

Choose to eat 5 servings of low potassium fruits and vegetables.

Include more whole pieces of fruits and vegetables rather than juices or canned varieties.

Use high-fiber cereals to extend entree items.

Use oatmeal or crushed bran cereals in meatloaf, burgers, and casseroles.

Choose water to drink.

It is important you stay within your fluid allowance.

Use approved fiber supplements.

Discuss with your doctor, which fiber supplements are best for you.

Be active.

Walking is a great way to get active. Talk to your doctor about including physical activity to your daily routine.

Focus on adding more fiber to your diet rather than focusing on how many grams of fiber per day.

DID YOU KNOW?

Sports Drinks

Formulated for rehydration, but can contain between

100mg and 225 mgs
of sodium per 8 ounces of liquid





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