

# Chronic Kidney Disease

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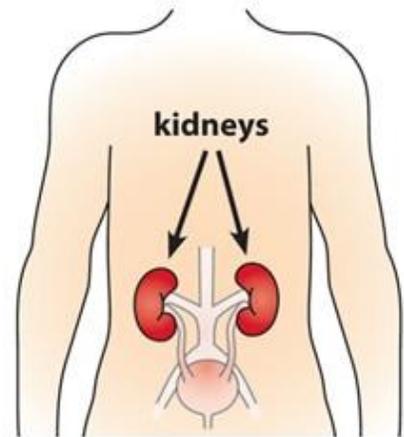
## Overview

The kidneys' main job is to filter extra water and wastes out of your blood to make urine. To keep your body working properly, the kidneys balance the salts and minerals -such as calcium, phosphorus, sodium, and potassium- that circulate in the blood. Your kidneys also make hormones that help control blood pressure, make red blood cells, and keep your bones strong. In Chronic Kidney Disease (CKD), the kidneys continue to work, though not as well as they should. Wastes build up gradually and make you feel sick. Phosphorus and potassium may rise to unsafe levels, causing heart and bone problems. Anemia -low red blood cell count- can result because the kidneys stop making enough erythropoietin, a hormone that causes bone marrow to make red blood cells. After months or years, CKD may progress to end stage renal disease (ESRD), which requires a person to have a kidney transplant or regular blood filtering treatments called [dialysis](#).

## Nutrition and CKD

When you're living with chronic kidney disease (CKD), what you eat and drink—and how much—is important, and you'll want to start eating a kidney-friendly diet. Someone in the early stages of kidney disease may have different dietary needs than someone in the later stages. People with kidney disease may need to limit their intake of:

- Sodium
- Potassium
- Phosphorus
- Protein
- Fluids



There are general nutrition guidelines for CKD but remember that everyone is unique and that your needs can change over time. A Registered Dietitian Nutritionist (RDN) can help you put together a personal plan.

## Eating Healthy for Chronic Kidney Disease

The following steps will help you manage your kidney disease. The first five steps (1-5) are important for all people with kidney disease. The last step (6) may become important as your kidney function decreases.

### Step 1: Limit sodium and inquire about your fluid intake

When your kidneys are not working their best, too much sodium and fluid can build up, causing swelling, high blood pressure, and stress on your heart. As such, people living with CKD may need to limit their sodium and fluid intake. Talk to your doctor or renal dietitian about how much sodium and fluid you can consume each day, and try these tips for managing your intake:

- **Choose fresh foods:** Sodium is added to prepared or packaged foods you buy at the supermarket or eat at restaurants. Sodium can be added in the form of salt or other forms, as a preservative, so even sweet foods like cookies can have sodium! This is why reading food labels is very important for CKD.
- **Cook foods from scratch** instead of eating prepared foods. “Fast” foods, frozen dinners, and canned foods are high in sodium.
- **Read food labels closely:** Foods with a % Daily Value of less than 10% for sodium are

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good options. Watch out for “reduced sodium” or “light in sodium” options, as these can still be high in sodium or potassium.

- **Try lower-sodium versions** of canned products.
- **Rinse canned** vegetables, beans, and fish with water before eating.
- **Stick to salt-free seasonings:** Fresh or dried herbs and spices can pack tons of flavor!
- **Measure and track liquids:** If your doctor has talked to you about limiting your fluids, keeping track of your daily intake is a good idea.

## Step 2: Learn to read and understand nutrition labels

It's very important to understand how to read nutrition labels. In addition to keeping an eye on certain nutrients, pay close attention to the serving size. Be aware that the serving size listed may not match how much you actually expect to eat. When reading nutrition labels, the % daily value (DV) tells you how much a serving of food contributes to a daily diet (based on a diet of 2,000 calories). Try sticking to the following % daily values for each serving:

- **Dietary fiber—more than 10% DV**
- **Saturated fat—less than 10% DV**
- **Trans fat—none**
- **Sodium—less than 10% DV**
- **Added sugars—less than 10% DV**



Nutrition Facts	
Serving Size 1/4 Cup (30g)	
Servings Per Container About 38	
Amount Per Serving	
<b>Calories</b> 200	Calories from Fat 150
% Daily Value*	
<b>Total Fat</b> 17g	<b>20%</b>
Saturated Fat 2.5g	<b>13%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 120mg	<b>5%</b>
<b>Total Carbohydrate</b> 7g	<b>2%</b>
Dietary Fiber 2g	<b>8%</b>
Sugars 1g	
<b>Protein</b> 5g	
Vitamin A 0%	Vitamin C 0%
Calcium 4%	Iron 8%
*Percent Daily Values are based on a 2,000 calorie diet.	

## Step 3: Lighten up on protein and choose healthier proteins

Your body uses protein to build and repair muscle. When you're living with CKD, your doctor may suggest cutting back on how much protein you eat because of its effect on your kidneys. While protein is an important building block for a healthy body, it creates a waste called urea. With CKD, your body has trouble removing urea, which can make you feel tired and lose your appetite.

- **Choosing proteins:** It's a good idea to avoid processed or fast foods. Instead, choose plant-based options or fresh, lean animal proteins. Watch your portion sizes and how often you eat protein-rich foods, especially if your doctor has discussed reducing your protein intake to protect your kidneys. If you're unsure of how much protein you should eat, ask your doctor or Registered Dietitian Nutritionist for help. Some healthy protein choices to consider include:
  - ✓ Plant-based proteins: Soy, tofu, beans, seeds, lentils, whole wheat, nuts, peanut butter, brown rice, peas, green beans, chickpeas.
  - ✓ Animal-based proteins: Chicken, turkey (not cold cuts), fish, shellfish, beef, pork, eggs, dairy and fresh cheese.
- **Know how much protein is too much or too little.** If your kidney function is less than 25% or stage 4, you may be instructed to cut back on red meat, poultry, fish, and dairy since they contain high levels of protein. However, it's important to understand that protein is still essential for all bodily functions, so follow your healthcare provider's exact recommended protein intake.

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## Step 4: Eat for a healthy heart

Heart-healthy food is important to help protect your blood vessels, heart, and kidneys.

- **Grill, broil, bake, roast, or stir-fry foods, instead of deep frying.**
- **Cook with nonstick cooking spray or a small amount of olive oil instead of butter.**
- **Trim fat from meat and remove skin from poultry before eating.**
- **Try to limit saturated and trans fats.** Read the food label!
- **Heart-healthy foods:** Fish; beans, vegetables and fruits.
- **Limit alcohol:** Drink alcohol only in moderation: no more than one drink per day if you are a woman, and no more than two if you are a man. Drinking too much alcohol can damage the liver, heart, and brain and cause serious health problems.



## Step 5: Understand and keep track of your lab reports

Learning how to understand lab (blood tests) reports is a good way to see how different foods affect the kidneys. A healthcare provider should order regular blood tests for you. Ask your health care provider for copies of your reports and ask to have them explained. Keeping track of these lab results can help you see your progress. For example, if test shows a high potassium level, you can concentrate on reducing potassium in the diet by limiting high-potassium foods. Talk to your Registered Dietitian Nutritionist for help with this.

## Step 6: Ask about your need to limit potassium or phosphorus

As your kidney function goes down, you may need to eat foods with less phosphorus and potassium. Your health care provider will use lab tests to check phosphorus and potassium levels in your blood, and you can work with your Registered Dietitian Nutritionist to adjust your meal plan.

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