



NUTRITION FOR
PEOPLE LIVING WITH

CHRONIC KIDNEY DISEASE



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WHAT IS CKD?

Chronic Kidney Disease (CKD) is a disease where the kidneys slowly lose their function over time and don't work as well as they should. This is due to damage to the kidneys that may be caused by another disease or health condition such as diabetes, high blood pressure, or kidney infections.

Your kidneys remove waste and extra fluid from your blood through your urine. They also play a role in controlling blood pressure, making red blood cells, and bone health. With CKD, your kidneys are unable to work properly, causing fluid and waste build-up, high blood pressure, anemia, and possibly other negative health conditions.

There are 5 stages of CKD, ranging from mild (Stage 1) to kidney failure (Stage 5). Symptoms may not be noticeable at Stage 1 or 2, but by Stage 3, symptoms of CKD will be more noticeable. There is no cure for CKD, but there are ways you can slow down the damage to your kidneys.

These include:

- Managing blood sugar levels if you have diabetes
- Avoiding medications that may worsen kidney damage, such as NSAIDs (examples include aspirin, ibuprofen, naproxen, etc.)
- Managing blood pressure levels
- Not smoking
- Engaging in exercise or physical activity most days of the week
- Maintaining a healthy weight
- Following a kidney-friendly diet

Please note that nutrition needs for CKD vary from person to person. Talk to your Registered Dietitian or other healthcare provider to learn which foods are best for you and your symptoms.



NUTRITION FOR CKD

Following a kidney-friendly diet, or renal diet, can help to manage CKD and slow down kidney damage. Following this kind of diet may include limiting protein, potassium, phosphorus, sodium, and fluid intake. Individual needs may vary depending on your age, weight, lab values and stage of kidney disease. Talk with a dietitian or your kidney doctor to determine if limiting these nutrients is appropriate or if there are other nutrients that need to be adjusted.

WHAT IS DIALYSIS?

Dialysis is a type of treatment for those with kidney failure, also known as Chronic Kidney Disease Stage 5 or End-Stage Renal Disease (ESRD). Dialysis does the work that kidneys normally would do by filtering the blood and removing waste and excess fluid.

PROTEIN

Protein helps keep muscles strong. However, with CKD, you may need to limit your protein intake. As your body digests protein, by-products are produced. Healthy kidneys are able to filter and remove these by-products, but with CKD, the kidneys are unable to do so, leading to a build-up of these by-products. These by-products can be harmful to your organs over time. Furthermore, protein makes up a large portion of your kidney's workload. Therefore, limiting protein can reduce the amount of by-products being produced, preventing build-up of waste, and decrease the stress on the kidneys, preserving the kidneys.

Nonetheless, eating protein is still essential to your health. The right amount of protein varies from individual to individual. Work with a registered dietitian to determine the right amount to prevent further damage to the kidneys and preserve muscle mass. Include a variety of protein food sources including:



Plant-based proteins

Examples: nuts, seeds, and legumes (e.g., black beans, kidney beans, pinto beans, lentils, chickpeas)



Leaner and whole cuts of meat



Fish or seafood



Eggs

PHOSPHORUS

With CKD, **reducing phosphorus is important** because it is harder for the kidneys to remove excess amounts of this mineral from the blood when the kidneys are damaged. Too much phosphorus causes calcium to be pulled from your bones, which can lead to bone problems.

There are two types of phosphorus:

- 1 **Natural Phosphorus**
Natural food sources of phosphorus include meats, dairy, grains, and vegetables. Your body does not absorb all the phosphorus coming from these foods.
- 2 **Added Phosphorus**
Phosphorus can be added to foods and drinks, commonly to preserve food and drinks. Your body absorbs all the phosphorus in these foods.

To reduce your phosphorus intake, choose foods that are whole and fresh, and limit foods and beverages that have phosphorus added to them.

Tip: Phosphorus is usually added when you see “phos” in the ingredient list of the Nutrition Facts label of a food or drink, such as *sodium phosphate* and *phosphoric acid*. Some common examples of foods with phos additives include pop/sodas, breakfast/cereal bars, baked goods (pancake, biscuit, and pastry mixes), and other convenience foods such as chicken nuggets.

Milk is high in phosphorus. Try dairy alternatives, or limit your intake of certain dairy products. For example:

Milk and soy beverages	Limit to ½ cup
Cottage cheese (no added phosphorus)	Limit to ½ cup
Yogurt (natural, unsweetened, or plain)	Limit to 6 oz.
Natural cheeses	Limit to 1 oz.
Cream cheese (regular or low fat)	Limit to 1 tablespoon
Sour cream (regular or low fat)	Limit to 1 tablespoon

POTASSIUM

Like phosphorus, the kidneys are unable to filter and remove potassium. Too much potassium can be harmful to your heart health. Therefore, reducing potassium intake may be necessary. The table below provides some examples of low-potassium foods that may help with managing potassium intake.

	LOWER POTASSIUM CHOICES	HIGHER POTASSIUM CHOICES
FRUITS	Apples, berries, cherries, grapes, lemon, lime, watermelon, and fruit juices including apple, cranberry, grape, pineapple juice	Bananas, cantaloupe, orange, peach, plantain, pomegranate, and fruit juices including orange, pomegranate, prune juice
VEGETABLES	Asparagus, broccoli, carrots, celery, cucumber, corn, green beans, peppers, cabbage, cauliflower, lettuce, kale, zucchini, yellow squash	Avocado, bamboo shoots, beets, brussels sprouts, bok choy, corn, potatoes, pumpkin, spinach, tomatoes, vegetable or tomato juice
GRAINS	White or whole grain breads and pasta, white or brown rice, oatmeal, whole grain and plain cereal	Bran cereals, granola
PROTEIN	Plant-based protein: Nut butters, hummus, tofu (firm, soft, or silken)	Black, kidney, pinto beans, beef, fish, chicken, whole nuts, soy
DAIRY OR DAIRY ALTERNATIVES	Rice, almond, or oat milk, cream cheese, natural cheeses, sour cream	Milk, yogurt, cottage cheese, coconut milk

A vertical photograph on the left side of the page shows several white trays filled with various colorful foods, including salads, rice, and vegetables, arranged in a row.

SODIUM

Limiting sodium is helpful in regulating blood pressure, which is important for preserving kidney function. High blood pressure weakens blood vessels throughout the body and makes it more challenging for the kidneys to filter the blood.

It is recommended to limit sodium intake to **no more than 2,300mg per day** for managing CKD.

To limit or decrease your sodium intake, you can:

- Limit adding salt to recipes or food at the table
- Eat more fresh foods
- Choose low-sodium food options such as:
 - Fresh fruits, vegetables, and meats
 - Food items with less than 140mg of sodium per serving
 - Food items that say “low sodium” or “sodium-free”
- Flavor foods using fresh or dried foods, spices, or herbs or salt-free seasoning blends (e.g., garlic, onion powder, lemon juice, rosemary, Dash Salt-Free seasoning blends)
- Use salt alternatives (such as coconut aminos) instead of soy sauce or tamari

FLUID

A fluid restriction may be necessary to help with blood pressure control. The water in the beverages you drink and foods you eat count toward your total fluid intake. Talk with your kidney doctor or a dietitian to determine if you need any fluid restrictions.

OPEN ARMS IS HERE TO HELP

YOUR OPEN ARMS MENU

While Open Arms does not have a menu specifically for CKD, there is a renal diet for those with ESRD and on hemodialysis. Our other menus such as heart-healthy and vegetarian would be appropriate for someone with CKD. The renal menu consists of meals that are low in sodium and potassium, limit added phosphorus, and are high in protein. If you do not have ESRD or not on dialysis, meet with one of our registered dietitians to talk about what menu may be the most appropriate for you, as those with CKD have different nutrition needs.

OTHER RESOURCES

For more information about CKD and nutrition, scan the QR codes or visit these webpages:



National Kidney Foundation- <https://www.kidney.org/kidney-topics/chronic-kidney-disease-ckd>



Diabetes and Kidney Disease from the United States Center of Disease Control - <https://www.cdc.gov/diabetes/healthy-eating/diabetes-and-kidney-disease-food.html>

GET IN TOUCH WITH OPEN ARMS

Open Arms has a team of Registered Dietitians that provide free-of-cost nutrition education and counseling to Open Arms clients over the phone. If you have a question about your meals or want to schedule a one-on-one call, contact the Open Arms nutrition team!

Our Registered Dietitians can help:

- Recommend a menu based on your needs and preferences
- Answer your questions about food, nutrition, and health
- Provide nutrition coaching to support you in reaching your health goals
- Suggest additional food resources if you need them
- Give you meal and snack ideas according to your likes, dislikes, and medical needs
- Provide nutrition information about Open Arms meals, such as calorie, nutrient, and allergen information



612-767-7333 Ask to speak with a registered dietitian



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