



NUTRITION FOR
PEOPLE LIVING WITH

END STAGE RENAL DISEASE

& HEMODIALYSIS



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WHAT IS ESRD?

End Stage Renal Disease (ESRD) occurs when Chronic Kidney Disease (CKD) reaches a state where the kidneys have lost most of their function. ESRD is also known as CKD Stage 5. At this stage, treatment options such as hemodialysis are needed to replace the work of the kidneys, which filters waste products from the body. Some risk factors for kidney disease include diabetes, high blood pressure, and/or heart disease. Kidney disease can't be cured, but can be managed with medication, dialysis, and good nutrition.

ESRD is one of the seven diagnoses that Open Arms serves. This guide will provide an overview of the general nutrition and food recommendations for those living with ESRD.

Note: Nutrition needs for ESRD are different for everyone depending on their other health conditions. Additionally, if you have CKD Stages 1-4, or are receiving peritoneal dialysis, your nutritional needs may differ from what's listed in this guide. Contact your dialysis dietitian or nephrologist to learn what foods are best for you and for recommendations specific to your needs.

NUTRITION FOR ESRD

The food and drinks you consume can affect the way you feel and how well your dialysis treatments work. Between your dialysis appointments, waste can build up in your body causing you to feel sick. The main goals for ESRD nutrition therapy are to limit foods that are high in certain minerals, including sodium, potassium, and phosphorus. It's also important to monitor your fluid intake and to eat enough protein.



FLUIDS

A fluid restriction may be necessary for those receiving dialysis treatments to help with blood pressure control. The water in the beverages you drink and foods you eat count toward your total fluid intake.



SODIUM

When sodium builds up in the blood, it can lead to high blood pressure. To limit your sodium intake, choose foods with less than 140 milligrams (mg) sodium per serving or those labeled "salt-free," "sodium-free," "very low sodium" or "low sodium". Try adding flavors to your food without adding salt. Some options to try include lemon juice, vinegar, dry or fresh herbs, or a sodium-free seasoning blend like Mrs. Dash.



POTASSIUM

Too much potassium in the blood can cause serious health problems, including heart attacks. Many different foods provide potassium, but it's important to avoid or limit those that are considered high potassium and replace with other healthy foods. Examples of high and low potassium foods can be found on page 5.

PHOSPHORUS

Too much phosphorus causes calcium to be pulled from your bones, which can lead to bone problems. You may be taking phosphorus binders to help lower phosphorus levels, but limiting foods that provide phosphorus may still be needed.

Our bodies absorb some forms of phosphorus better than others. It's most important to avoid or limit phosphorus additives, which are found in foods like dark sodas, chocolate candy, and processed meats. Phosphorus levels aren't usually listed on food labels. To determine if a food has phosphorus additives, look for words that contain "phos" in the ingredient list or reach out to your dietitian for more help.

Foods like dairy, meat, fish, nuts, and beans provide phosphorus, but they also contain important nutrients that your body needs. This is why you may still notice small amounts of some of these foods in your Open Arms meals.

A rule of thumb is to limit your dairy intake to 4 ounces (oz) per day and talk to your dialysis dietitian for recommendations about other phosphorus-containing foods.

PROTEIN

Protein needs are higher for those with ESRD due to losses that occur during dialysis. Aim to eat high-quality proteins like whole cuts of meat, poultry, fish, and eggs. Processed meats like hot dogs and lunch meat contain higher amounts of sodium and phosphorus, so should be limited. You can also eat small amounts of plant-based protein sources such as tofu, quinoa, legumes and nuts.

OTHER

Depending on your condition, your dialysis dietitian may recommend that you adjust your intake of other minerals, such as magnesium, calcium, vitamin D, and iron. If you have questions about your needs and restrictions that are not listed in this guide, please contact your dialysis dietitian or nephrologist.



RECOMMENDED FOOD LIST

It's important to remember that there are many foods that you CAN eat while on a renal diet. Focusing on the foods you can eat will help you maintain your health and quality of life. The table below provides some examples of foods that may help manage ESRD.

	INSTEAD OF THIS...	...HAVE THIS!
FRUITS	Oranges, bananas, dried fruits, fruit juices such as orange or prune juice	Apples, berries, cherries, grapes, peaches, fruit juices such as apple cider, grape juice, lemonade
VEGETABLES	Potatoes, tomatoes, pumpkin, avocado, spinach, asparagus	Broccoli, carrots, celery, cucumber, green beans, peppers, cabbage, cauliflower
PROTEIN	Hot dogs, lunch meat, sausages	Hamburger, chicken breasts, tuna in water, eggs
GRAINS	Boxed mixes, instant hot cereals, ready-to-eat baked goods	White or whole grain breads, lower-salt crackers
DAIRY	Dairy milk	Rice milk or soy milk

OTHER TIPS

- Beware of products that list “lower sodium”, “unsalted”, “no salt added”, or “reduced sodium” on the label as these may still contain more than 140 mg of sodium per serving.
- Avoid salt substitutes that are made with potassium. Check the ingredient label to determine if they contain potassium. Some examples of potassium additives include potassium sorbate, potassium chloride, and tetrapotassium phosphate.

OPEN ARMS IS HERE TO HELP

YOUR OPEN ARMS MENU

Open Arms has a renal menu planned specifically for those who have ESRD and on hemodialysis. This diet follows recommendations that have been provided by the National Kidney Foundation. It is low in potassium and sodium, and high in protein. The use of ingredients with phosphate additives is restricted on this menu.

Meals on the renal menu provide less than a certain amount of potassium, phosphorus, and sodium. You might notice that some of the meals include foods that are considered high phosphorus or potassium. These are added to some of the meals in small amounts. Each meal is approved by our team of registered dietitians (RD) and doesn't exceed the amounts of the key minerals that we have established in our guidelines.

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



612-540-7760 Ask to speak with a registered dietitian



nutrition@openarmsmn.org

COMMUNITY RESOURCE CONNECTIONS

ESRD

Health and Wellbeing

- **Minnesota Warmline:** Support for mental health crisis or emergencies.
 - Call 651-288-0400 or text “support” to 85511
 - Website: <https://mentalhealthmn.org/what-we-do/peer-support/minnesota-warmline/>
- **Dialysis Patient Citizens (DPC):** Open only to dialysis and pre-dialysis patients and their families.
 - Phone Number: 1-866-877-4242 or 202-789-6931
 - Email: dpc@dialysispatients.org
 - Website: <https://www.dialysispatients.org/>
- **Life Options Rehabilitation Program:** Offers community building, educational materials, and resource guides. (Available in Spanish)
 - Phone Number: 800-468-7777
 - Email: schatell@mei.org
 - Website: <https://lifeoptions.org/>
- **American Kidney Fund:** Offers health care and support at every step of their disease.
 - Visit the website (<https://www.kidneyfund.org/>)
- **National Kidney Foundation:** Educational information on website.
 - Website: <https://www.kidney.org/>
- **Kidney School:** Offers online training modules to learn about navigating your disease. (Available in Spanish)
 - Website: <https://kidneyschool.org/>
- **Home Dialysis Central:** See home dialysis equipment and find clinics that support home treatments. Talk to other home dialysis patients, read patient stories, and locate helpful tools.
 - Website: <https://homedialysis.org/>
- **American Association of Kidney Patients (AAKP):** Access written materials like kidney disease magazine, e-book, or email newsletter. You can also access health-tracking tools and ask a doctor questions.
 - Phone number: 800-749-2257
 - Email: info@aakp.org
 - Website: <https://aakp.org/>
- **United Network for Organ Sharing (UNOS):** Great resources for organ transplants.
 - Website: <https://unos.org/>

Nutrition

- **National Institute of Diabetes and Digestive and Kidney Diseases**
 - Website: <https://www.niddk.nih.gov/health-information/kidney-disease/kidney-failure/hemodialysis/eating-nutrition>
- **DaVita**
 - Website: <https://www.davita.com/diet-nutrition>
 - Kidney Diet Cookbooks at <https://www.davita.com/diet-nutrition/kidney-friendly-cookbooks>
- **National Kidney Foundation**
 - Website: <https://www.kidney.org/nutrition/Dialysis>
- **Fresenius Kidney Care**
 - Website: <https://www.freseniuskidneycare.com/eating-well>

Support Groups

- **National Kidney Foundation Peers:** 1:1 peer program providing mentors with lived experience to help others by sharing their experiences.
 - Join Online <https://nkf.chronus.com/p/p4> -OR- Learn more at: 855-653-2273
- **National Kidney Foundation Cares:** Our Patient Information Help Line, NKF Cares, offers support for people affected by kidney disease, organ donation or transplantation. It's designed just for patients, family members and care partners. English and Spanish speakers are available Monday - Friday from 9:00 am - 7:00 pm EST.
 - Phone Number: 855-653-2273
 - Email: nkfcares@kidney.org
- **Online Communities:** National Kidney Foundation communities offer a safe and supportive place where patients and caregivers can share experiences and ask questions. Participation is free and anonymous.
 - Find your Community: <https://www.kidney.org/treatment-support/communities>
- **Renal Support Network:** A nonprofit, patient-focused, patient-run organization that provides non-medical services to those affected by chronic kidney disease (CKD), are on dialysis, or have received a transplant.
 - Website: <https://www.rsnhope.org/>