

Nutrition for Polycystic Kidney Disease (PKD)

Polycystic kidney disease (PKD) may require making changes in your lifestyle to help manage blood pressure, hydration, weight and kidney cysts. These lifestyle changes include following a low sodium diet, drinking plenty of fluids, avoiding excessive protein intake and maintaining a healthy weight through eating well and exercising regularly.

Sodium

In general, aim to keep your sodium intake to around 2000 milligrams (mg) per day or less unless otherwise advised by your medical team.

To limit your sodium intake:

- **Do not** use salt at the table.
- Cut out or use half the amount of salt (or less) normally used in recipes and in cooking.
- Read food labels. A low sodium food is less than or equal to 140 mg/serving.
- **Avoid** foods high in sodium as listed.

Common Foods High in Sodium

High Sodium Meats

- Bacon
- Canadian bacon
- Corned beef
- Hot dogs
- Smoked fish
- Luncheon meats
- Smokes Sausage
- Bratwurst
- Ham
- Herring, sardines
- Canned meat entrees

High Sodium Cheeses

- Camembert
- Cheese spreads
- Roquefort
- Processed cheese (Velveeta, American)
- Gorgonzola
- Party Dips

Convenience and Processed Foods

- Breads and rolls with salt toppings
- Frozen dinners
- Oriental foods
- Pot pies
- Packaged entrees, rice
- Potato and noodle mixes
- Potato chips
- Tomato juice
- Canned tomatoes, sauce, paste
- Sauerkraut
- Bouillon cubes
- Gravy, sauce mixes
- Pickles, olives, relish
- Salted snack crackers
- Pretzels
- Soups, canned, frozen, or dehydrated

Seasonings that Contain Sodium

- Celery salt
- Chili salt
- Garlic salt
- Lemon pepper
- Horseradish
- Onion salt
- Soy salt
- Lite salt
- Meat sauces
- Meat tenderizers
- Monosodium glutamate (MSG)
- Seasoned salt

Condiments (use in moderation)

- Peanut butter
- Ketchup
- Store-bought salad dressing
- Seasoned vinegar
- Bottled sauces:
 - Soy
 - Fish
 - Oyster
 - Barbeque
 - Worcestershire sauce

Sodium-Free Substitutes

- Spike® Salt Free or Dash™ (all kinds)
- Good and gather salt free seasoning
- Table blend salt free seasoning
- Bragg® 24 Herbs & Spices Sprinkle
- Lawry's® Seasoned pepper
- Dried horseradish
- Onion powder
- Garlic powder
- Fresh garlic
- Scallions, onions, shallots
- Fresh or dried herbs
- Pepper (white, red, black)
- Tabasco sauce
- Vegit®

Protein

Your body needs a diet with enough protein to maintain and grow body tissue. Too much protein intake can be hard on the kidneys and should be avoided. Keep protein intake to normal daily requirements. Try not to exceed this too much.

The recommended daily protein intake is about 1.0 grams per kilogram (kg) of ideal body weight (IBW) per day. If your kidney function is significantly reduced, a mild reduction in protein intake towards 0.8 g per kg of IBW may be recommended by your medical team. Ask your nephrologist or dietitian what your daily protein goal is.

Protein Serving Sizes

Each of these is equal to one choice or serving and contains about 7 grams of protein:

- 1 oz beef, lamb, pork, poultry, or fish
- ¼ cup salmon, tuna, crab, poultry, fish, lobster, or clams
- ¼ cup cottage cheese
- 1 oz. or 5 medium shrimp
- 1 egg or ¼ cup egg substitute
- 2 Tbsp peanut butter
- 1 oz or ¼ cup of nuts
- 4 oz tofu, 1 oz tempeh
- ½ cup cooked dried beans, peas, lentils, and soybeans (edamame)
- 1 oz natural cheese (Swiss, Cheddar, etc.)

Milk is also a protein source. Each of these milk choices contains 8 grams of protein:

- 1 cup milk
- 1 cup regular yogurt
- ¾ cup custard
- 2-3 oz or ½ carton of Greek yogurt
- 1 cup cream (milk-based) soup
- ½ cup ice cream
- 1 cup milk-based pudding
- 2.5 cups non-dairy substitute

Plant-based Diets

New studies have shown that eating a vegetarian-type diet that includes plant-based proteins like nuts, beans, and seeds may help your kidneys stay healthier. A good goal is to make half your weekly meals have plant-based protein sources.

Fluids

Getting plenty of fluids is important for kidney health. It may help reduce cyst growth. Drink more than 3L of fluids per day (most of this being water) in PKD, unless otherwise specified by your medical team.

Avoid or limit sugary-sweetened beverages and caffeinated beverages (1-2 cups/servings per day). They can raise your blood sugar and blood pressure levels and be dehydrating.

It is important to also know that kidney function and many other factors can significantly alter your fluid intake recommendations. Make sure to discuss your personalized fluid intake recommendations with your nephrologist and dietitian.

Tolvaptan

While you are on Tolvaptan, one of the medicines used to slow down PKD, will make you thirsty. You may have to drink more than a gallon of water per day.

While taking Tolvaptan, **avoid** grapefruit or pomegranate fruit or juice. These can raise Tolvaptan levels to toxic ranges.

Beverage options to provide variety/flavor water and increase fluids:

Unsweetened

- Hint[®] water or homemade infused water (ex: cucumber and mint)
- Sparkling waters
- True Lemon or Lime crystalized packets
- Unsweetened herbal tea or decaf coffee (1-2 servings per day)

Sweetened with Stevia (1-2 per day)

- Stur[™] or SweetLeaf[®] drops
- True[®] Lemon-flavored Lemonades
- Zevia[®] (caffeinated and non-caffeinated options)

Physical Activity

The National Physical Activity Guidelines for Americans recommends adults get at least 150 minutes of moderate intensity activity or 75 minutes of vigorous-intensity activity per week. Also, adults should include muscle-strengthening activities at least 2 days per week.

Moderate-intensity Activities: brisk walking, cycling or swimming.

Vigorous-intensity activities: running, fast cycling or sports (soccer, basketball, etc.).

Muscle-strengthening activities: lifting weights or using resistance bands.

Weight Management

If your BMI is greater than 25, it may benefit your kidneys to lose weight to a BMI 18.5-24.9. This can slow the growth of cysts in the kidneys. Your dietitian can help you with weight loss if needed.

Weight Loss Information

If you are looking for a group program to help with weight loss, consider joining UW Health's Lifestyle Change Program. It is a CDC-Recognized Program, designed for adults looking to make sustainable changes to their lifestyle, including nutrition, activity, sleep and stress management. Please visit: <https://patient.uwhealth.org/education/lifestyle-change-programming>.

We also offer cooking classes for PKD patients at our Learning Kitchen. For more information, please visit: <https://www.uwhealth.org/services/learning-kitchen>.