



Patient & Family Guide

2022

Nocturnal Dialysis Nutrition Guidelines



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Nocturnal Dialysis Nutrition Guidelines

- Nocturnal Home Hemodialysis (NHD) is a type of dialysis done at home overnight, usually for 8 to 9 hours, 5 to 6 nights a week.
- NHD is a long, slow, and gentle dialysis that helps to clean out many of the waste products that build up in the blood when your kidneys are not working properly.
- Since NHD is done almost every night, there is less time for waste products to build up in your blood. This means that your nutrition plan will be less strict than with other types of dialysis.
- Once you are on NHD, you will feel better and have a better appetite. Food will taste better because your blood will be cleaner from the longer dialysis.
- Even though your nutrition plan will be less strict, it is still an important part of your treatment. Your plan will be adjusted to fit you.
- **The main parts of the NHD nutrition plan are:**
 - › Protein
 - › Phosphorus
 - › Sodium (salt)
 - › Fluids
 - › Potassium

Protein

What is protein?

Protein is the building block for cells. It is needed for growth, building new body tissues, and repairing injured or broken-down tissues.

Why do I need more protein?

Each time you do dialysis, you will lose some protein. You need to eat more protein to replace what you have lost. A low blood urea nitrogen (BUN) and/or blood albumin level may be a sign that you are not eating enough protein. Your dietitian can help with this.

High protein foods include:

- › Meat
- › Fish
- › Poultry
- › Eggs
- › Cheese
- › Tofu

If you cannot eat enough high protein foods, you may need to take high protein products, such as:

- › Resource® Diabetic
- › Novasource® Renal
- › Nepro®
- › Resource® Protein Instant

Your dietitian will help you choose which of these products is best for you.

Common portions of high protein foods

- Each of these are equal to 1 ounce of meat:

- › 1/4 cup tuna, salmon, or chicken
- › 1/4 cup cottage cheese*
- › 1 large egg
- › 1/3 cup raw tofu
- › 1 oz cheddar cheese (1 square inch)*
- › 2 tbsp peanut butter*

*These foods are high in phosphorus and should only be used as a protein at meals if your blood phosphorus is within acceptable levels.

- **A 3 ounce portion of meat is about equal to:**

- › 1 medium chicken breast (cooked)
- › 1 medium hamburger patty (cooked)
- › 1 large pork chop (cooked)
- › 1 boneless steak, the size of a deck of cards (cooked)
- › 1/2 cup firm tofu (raw)

Sample meal plan

Breakfast:

- › 2 eggs
- › 2 slices whole wheat toast
- › 2 tsp margarine
- › 1 orange
- › 1 cup of coffee

Lunch:

- › 1/2 cup tuna
- › 2 slices whole wheat bread
- › 1 to 2 tsp mayonnaise
- › 1 apple
- › 1 cup of 1% milk

Supper:

- › 4 oz chicken breast
- › 1 small potato, mashed
- › 1/2 cup carrots
- › 1/2 cup green beans
- › 2 tsp margarine
- › 1/2 cup strawberries
- › 1 cup of 1% milk

Snack:

- › 2 tbsp peanut butter
- › 1 multi-grain bagel
- › 1 cup fruit punch

Phosphorus

- Phosphorus and calcium are minerals found in your body. When you have normal kidney function, these minerals stay in good balance. When your kidneys do not work well, phosphorus in your blood can go up and calcium can go down.
- To fix this problem, your body will take calcium from your bones to “rebalance” things. This can cause your bones to become weak and painful and they may break easily.
- NHD removes more phosphorus than other types of dialysis, and does not give as much time for phosphorus to build up in your blood between dialysis sessions. Because of this, you may not need to avoid all high phosphorus foods. You may need less phosphate binders (like Tums®, calcium carbonate, Renagel®, Milk of Magnesia®), or even no phosphate binders. This will depend on your blood test results.
- **Keep your phosphorus and calcium in healthy balance by:**
 - › avoiding high phosphorus foods if your blood phosphorus is high.
 - › eating high phosphorus foods in moderation if your blood phosphate level is always **normal**. Talk about this with your dietitian.
 - › taking phosphate binders with meals and snacks, if needed.

High phosphorus foods

- › Dairy products (like milk, yogurt, and cheese)
- › Nuts, nut butters, seeds, lentils, beans (except green and yellow beans)
- › Whole grain breads and cereals (like oat bran, All Bran[®], natural bran, Bran Buds[®], Bran Flakes[®], and Raisin Bran[®])
- › Self-rising flour, baking powder (can use Magic[®] Baking Powder)
- › Cake donuts, muffins, biscuits, pancakes, waffles (store-bought and mixes)
- › Chocolate
- › Organ meats (like liver or kidney)
- › Sardines
- › Canned salmon **bones**
- › Processed foods (like hot dogs, sausage, bologna, and pizza)
- › Coke[®], Pepsi[®], or other colas, Dr.Pepper[®]
- › Beer

Phosphate added during processing is absorbed quicker by the body than phosphate found naturally in foods.

Sodium (salt)

What is sodium?

- Sodium is a mineral that controls the balance of fluids in your body. All plant and animal foods have sodium, but the main sources of sodium in the diet are table salt and salt added to foods during processing.

Why is it important to control my sodium intake?

- Your kidneys can only handle a certain amount of sodium. If you eat too much sodium, you will get thirsty, fluid will build up in your body, and your blood pressure will go up.
- People on NHD can often eat more salt than is allowed on other types of dialysis, though it is still important to limit how much salt you eat overall. Your dietitian will help you figure out how much salt is right for you.

Guidelines for controlling sodium intake

1. Food can be prepared with salt, but no more than 1/4 to 1/2 tsp a day.
2. **Do not add salt to your food at the table.**
3. Read food labels. Avoid foods with more than 20% Daily Value for sodium.
4. Choose foods with 5% or less Daily Value for sodium when possible.
5. Try different spices to add flavour to food.

High sodium foods

Limit these high sodium foods:

- › Processed cheeses (Cheese Whiz[®], cheese slices)
- › Feta and Parmesan cheeses
- › Salted crackers
- › Salted party snacks (chips, peanuts, pretzels)

Condiments

- › Pickles
- › Relish
- › Chili sauce
- › Soy sauce
- › Oyster sauce
- › Meat tenderizers
- › Celery salt
- › Garlic salt
- › Onion salt (powders and flakes are OK)
- › Seasoned salt
- › Seasoned pepper
- › Mixed spices containing salt, Accent[®], MSG[®]

Salted, smoked, or cured meats

- › Bacon
- › Bologna
- › Corned beef
- › Deli meats
- › Kosher meats
- › Sausages
- › Wieners
- › Salted or dried cod
- › Salted or smoked herring

Convenience foods

- › TV dinners
- › Frozen meat pies
- › Frozen entrees
- › Battered frozen fish, chicken
- › Bottled or canned sauces (like spaghetti and pasta sauces)
- › Canned beans, stews, soups
- › Canned meats (KAM[®], flaked turkey, ham, chicken)
- › Canned vegetables
- › Devilled ham, potted meats
- › Dry, packaged soup mixes, OXO[®], bouillon
- › Kraft Dinner[®], all packaged pasta dinners
- › Scalloped potato mixes
- › Pre-seasoned pastas and rice
- › Vegetable juices

Fluids

- Most people on NHD do not need to limit their fluid intake because they have dialysis treatments at least 5 days a week. However, drinking too much fluid can cause tissue swelling and high blood pressure. If this happens, you must limit the amount of fluids you drink.
- The amount of fluids you should drink depends on your urine (pee) output and your dialysis.
- **In general, the recommended fluid intake is about 2 litres (2,000 ml, or about 8 cups) per day.**
- Your doctor and dietitian will help you find out how much fluid is right for you.
- **If fluid gain is a problem, remember:**
 - › The more salt (sodium) you eat, the more thirsty you will be
 - › Anything liquid at room temperature counts as a “fluid” (such as ice cream, soup, popsicles, Jell-o[®])
 - › Everything you drink (including tea and coffee) counts toward your fluids for the day
 - › Measure fluids before drinking so you know exactly how much you are drinking

Potassium

- Most people on NHD do not have a problem with high blood potassium levels. Potassium is usually mostly removed by dialysis.
- You should be able to eat some high potassium foods in moderation, as long as your potassium level is normal.

- Too much or too little potassium in the blood can affect muscle function, including the heart muscle.
- If your blood potassium level is too **high**, you should not eat high potassium foods.
- If your potassium level is too **low**, it may be a sign that you are not eating well. You should eat more high potassium and high protein foods.
- If your dialysis prescription is 5 days on and 2 days off, you may need to eat less high potassium foods on your 2-day break.
- Your dietitian can help you find out how much potassium is right for you.

High potassium foods

Fruit and juice

- › Raw apricots
- › Dried fruit
- › Dried figs
- › Avocados
- › Bananas
- › Cantaloupes
- › Currants
- › Dates
- › Grapefruit juice
- › Honeydew melons
- › Kiwis
- › Oranges, orange juice
- › Papayas
- › Persimmons
- › Pomegranate juice
- › Prune juice
- › Mangos
- › Nectarines
- › Raisins
- › Tangelos
- › Watermelon

Vegetables

- › Artichokes
- › Beet greens
- › Brussels sprouts
- › Dandelion greens
- › Mushrooms
- › Mustard greens
- › Parsnips
- › Pumpkin
- › Swiss chard
- › Tomatoes
- › Vegetable juice (no added salt)
- › Winter squash
- › Yams
- › Potatoes (white and sweet)

Other high-potassium foods include brown sugar, gravy, and molasses.

It can be hard to make changes to your eating habits.
If you have any questions, please ask to talk with a dietitian.
We are here to help you.

Dietitian: _____

Phone: _____

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For more information, go to <http://library.novascotia.ca>

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Learn about other programs and services in your community: call 211 or visit <http://ns.211.ca>

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Prepared by: Nutrition and Food Services

Designed by: Nova Scotia Health Library Services

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