

Nutrition for My Health: Balancing Protein in My Diet

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(Adapted from a chapter in a program called PEAK [People Educated and Aware about Kidney Disease] given at Boston's Beth Israel-Deaconess Hospital in 2001. The chapter is intended for new or prospective patients.)

Now that I have kidney disease, what happens to my diet?
Why do people with kidney disease need to follow a special meal plan?
What is protein?
How does too much protein lead to more kidney damage?
So how much protein do I need?
What types of foods are best for my protein-limited diet?
Do I need supplements or vitamins?
Can I still eat my favorite foods?
What about eating out in restaurants?
If you've asked yourself some of these questions, then this chapter is for you.

Kidney failure can be delayed by eating the right amount and types of protein in your diet. It is important to eat nutritious meals to keep your body at its best. Having kidney disease may mean that you have to make changes in your diet. This article will discuss the changes you may need to make.

Now that I have kidney disease what happens to my diet?

Adapting to a special diet that is probably different from your own may feel overwhelming. So much to learn!

There will be new ways of eating and looking at food. But you are not alone. A registered dietitian can help people with kidney disease learn new ways to eat. Many people successfully make these changes. You can too.

Some people report that they only have had to make small changes. Others say that they feel better now that they follow a special diet.

What will my meal plan look like?

Deciding what and how much to eat is not easy. That's why we strongly encourage you to work with a dietitian who can create your own personal meal plan that is tailored to your likes and dislikes and your body's needs.

There is no one standard meal plan that fits all people. Your meal plan will be designed after considering many facts such as your current health, your risk for worsening kidney disease, other health conditions, your current eating habits, your

weight goals, and results from your blood work. If you have diabetes, you will need to learn how much carbohydrate (starch and sugars) to eat each day.

When you speak with a renal dietitian about your dietary needs, he or she will help you merge all the different parts of the diet into a special plan just for you. You will learn how to pull together foods from the different “allowed” lists and how to avoid foods from the “omit” lists.

Why do people with kidney disease need to follow a special meal plan?

We learned that the kidneys filter waste products. After food is eaten and digested, healthy kidneys get rid of waste and excess minerals your body is not using.

When the kidneys can no longer get rid of these sub-stances properly, they can accumulate in your body. It is important to limit the foods that contain them. The following are substances that can accumulate:

- phosphorus,
- sodium,
- urea from protein,
- potassium, and
- extra fluid.

Many of these substances are found in food called protein.

What is Protein?

Protein is an important nutrient found in animal and plant foods. It is needed for growth and repair of the body tissues, for building muscle and for fighting infection.

How can too much protein make me ill?

When the body breaks down protein, it produces toxic (harmful) substances that must be eliminated. The kidneys remove the toxic substances from the blood by eliminating them in the urine.

When kidneys do not work properly they are longer able to remove waste products effectively from the blood, even when there is still a normal amount of urine each day.

The toxic substances that come from the breakdown of protein build up in the blood causing UREMIA. Symptoms of uremia include nausea, vomiting, fatigue, sleepiness, and altered taste.

How does too much protein lead to more kidney damage?

Most research shows that a low protein diet may **slow down** the progression of kidney disease. Many people with kidney disease need to limit the amount of protein in their diet in order to protect their kidneys from further damage. Your nephrologist will tell you if you need to cut back on protein.

What happens if I don't have enough protein?

Everyone needs protein. Restricting it too much is just as harmful as eating more than you should. Some people who are malnourished may need extra protein to regain good health.

By looking at a blood test called **albumin**, or blood protein, your doctor and dietitian can tell if you have too little protein in your body. If so, your medical team may determine that you are not eating enough protein to keep you healthy.

Too little protein in the diet can lead to:

- Illness, infection
- Malnutrition
- Breakdown of muscles

Your dietitian can help you find ways to add more protein in your diet if you need to do so.

So how much protein do I need?

Deciding how much protein is right for you depends on a careful look at:

- 1) your health
- 2) your kidney function, and
- 3) your nutritional status (whether you are malnourished).

Your doctor and dietitian will work with you to determine your protein needs. Most healthy people who have kidney disease need 0.8 grams of protein for every kilogram of body weight per day. **It is important to have your doctor and dietitian determine how much YOU need.**

For example, Mr. Jones who weighs 150 pounds (about 68 kg) needs about 55 grams of protein a day.

Learning to put the right balance of protein in your diet can make a big difference in managing your kidney disease.

STOP and Check

1. What is your weight?
2. Are you malnourished?
3. How much protein do you need every day?

If you do not know the answer to these questions, it is time to see a dietitian for an individual visit.

How much protein do foods have?

- **One ounce of meat, fish, or poultry contains about 7 grams of protein.**

Other examples include:

- 1 large egg
- 1/2 cup of cooked beans
- 1 ounce of cheese
- 1 vegetarian hot dog
- 1/2 cup of tofu
- 2 tablespoons peanut butter

A restaurant portion of meat is about 4-8 ounces. That would mean 28-56 grams of protein in that portion.

4 ounces has 28 grams of protein: 4 x 7 grams of protein

8 ounces has 56 grams of protein: 8 x 7 grams of protein

- **One half a cup of milk, yogurt or ice cream contains about 4 grams of protein.**
- **Starches (breads and starches) have about 2 grams of protein.**

Examples include:

1 slice of bread

1/2 small bagel

3/4 cup of cereal

1/2 cup of pasta

- **Fruits and vegetables contain very small protein amounts.**

Your dietitian will help you learn what portion sizes of different foods are best for you. You may need to weigh and measure your foods at first, to be sure that you are not eating too much or too little protein.

When you buy foods you can check the food label, which will give you the grams of protein in a serving. You will learn to judge how much food is in a serving and how those protein grams add up to your total recommended grams a day.

What types of foods are best for my protein-limited diet?

Animal foods, beans and tofu have higher quality protein (also called high biological value proteins). Animal foods include all foods that come from animals or are made by animals.

Sources of animal protein:

Meat Turkey

Fish Eggs

Chicken Milk

Some plant foods contain lower quality protein (low biological value) protein). Sources of plant protein:

Nuts

Dried beans like kidney and pinto beans

Lentils

Legumes

Split peas

It is better for people with kidney disease to eat animal foods and limit the amount of low quality plant foods. Restricting high quality animal foods too much may cause you to become malnourished.

Animal and plant foods are both important to provide your body with the right building blocks for good health, **but in the right balance**. More than half of the protein in our diet (at least 60%) should come from animal proteins, beans or tofu.

It is also very important to eat non-protein foods every day. Foods like bread, rice, noodles, and desserts have calories but not much protein. The calories they provide prevent the protein calories from animal foods from being burned for energy. This leaves protein available for the important jobs like building muscles and fighting infection.

Taking in enough non-protein calories is especially important if your doctor has told you that you are underweight or malnourished.

Summary Points about Protein?

- Moderate protein intake can slow the progression of kidney disease.
- Too little protein can lead to illness.
- Meat, fish, poultry, beans and tofu are the biggest sources of protein in your diet.
- See a registered dietitian to find out how much protein is right for you.

Choose ANIMAL FOOD

Beef
Chicken
Turkey
Fish
Eggs

Eat Less PLANT PROTEIN FOODS

Legumes
Dried Beans
Bean Soup
Lentils
Nuts
Baked Beans
Split Peas
Peanut Butter

Do I need supplements or vitamins?

The diet for people with kidney disease includes foods from every major food group: fruits and vegetables, meat, breads and starches, and dairy. There is room in your kidney diet for desserts and snacks as well.

However, if you are on a restricted diet and are avoiding specific foods you may become deficient (low) in certain nutrients.

For example, if you are following a low potassium diet, you may not be eating enough vitamin C, folic acid, and B6 vitamins. Therefore, you will need a special renal vitamin pill that your doctor will prescribe.

You may need both a well-balanced renal diet **and** a vitamin supplement to get all the vitamins, minerals, and nutrients that you need for good health. Some renal vitamins include Nephrocaps® or Nephrovite®.

Your doctor will check your general health by looking at your weight, changes in your weight, and your blood tests such as cholesterol, albumin (blood protein), triglycerides, blood sugars, potassium, phosphorus, calcium and iron. Some people need to take liquid supplements if they are unable to eat enough.

Can I still eat my favorite foods?

Chances are, you can still enjoy many of your favorite foods. Some foods you like will need to be limited in portion size or reserved for a special treat. You may find a few foods that need to be omitted entirely.

Your dietitian will help you sort all this out. The dietitian will individualize your diet to your own eating habits and preferences as much as possible.

What about holidays and special occasions?

Kidney disease should not prevent you from enjoying your social life. By finding out what is to be served at the party you can decide how to handle the food issue so that you can go and have fun along with everyone else. Plan ahead what and how much you are going to eat.

What about eating out in restaurants?

Most restaurants have menus that include plenty of choices that allow you to stick to your renal meal plan. It is wise to be familiar with the restaurant. People with kidney disease can safely dine on Mexican, Chinese, Indian, or at any other ethnic cuisine. Even fast food!

Like good consumers, people with kidney disease should not be afraid to ask the restaurants for reasonable changes in the way food is prepared and presented (for example, asking that an omelet be made without cheese).

As you learn more about food and nutrition for kidney disease, you will discover that you need to order menu items that are not too salty and don't have creamy or buttery sauces and toppings. You will also learn which fruits and vegetables you may want to avoid because the potassium content is too high.

Here are some tips to consider while dining out. The more you work with these tips, the easier it will become.

- Ask how the food is prepared so you can make wise choices.
- Plan ahead. Know your meal plan so you can choose foods wisely.
- Learn how to measure portion sizes beforehand so that you can estimate them when dining out.
- Consider sharing your entrée with your dining partner.

- Consider ordering 2-3 appetizers instead of 1 entrée.
- Ask to have foods poached, grilled, or steamed to limit fat intake
- Ask for dressing to be added on the side.
- When eating later than usual, it may be necessary to eat a snack before hand.
- Take you time and enjoy your meal!

How do I cook and shop for foods now?

You will be able to shop in the same stores that you use now. Most of the food you will need to buy is not special “diet” foods. You will learn to read food labels to select foods that are appropriate and don't contain too many of the wrong ingredients for your diet.

If you like to cook, there are many renal cookbooks that are available. Your renal dietitian can suggest recipes or cookbooks that make your kidney diet more tasty and interesting.

GIVE IT A TRY!

Plan a day's menu for yourself. Make sure you include animal foods for protein and non-protein plant foods for calories. Don't worry about exact amounts. Think of things that you like to eat and include them whenever possible.

While dining out or cooking, look at how you can put these guidelines in place.