

Kidney Disease and Protein

What is protein?

Protein is a nutrient in food that is used by the body for growth and to build and repair muscles and other tissues, fight infections and heal wounds.

What food contains protein?

The amount of protein in food varies.

Good quality protein is in animal products, such as:

- Meat, chicken, fish, eggs, cheese and milk

Smaller amounts of lower quality protein are in:

- Bread, cereal, pasta, rice and vegetables

Your body needs both kinds of protein food at the same time to be healthy.

What does my body do with protein?

The blood brings the protein to build and repair your muscles. A waste product called urea is formed after your body uses the protein. Since urea cannot be filtered by a sick kidney well, it builds up in your body.

A build up of urea can make you feel unwell, and sometimes cause itchy skin. Food may not taste the same. You may not feel like eating, or you may vomit.

How much protein does my body need?

The amount of protein you need depends on your body weight and your degree of kidney disease.

The kidney is the only organ in the body that filters and removes urea. Remember, urea is a waste product that is formed after your body uses protein.

When you have kidney disease, a diet too high in protein can make the kidneys work harder and may cause more damage to your kidneys. You need to eat the right amount of good quality protein to help your body build and repair muscles, fight infections and heal wounds.

Your dietitian can help you figure out how much protein you need in a day.

Remember:

Keeping good control over your blood pressure and blood sugar is also very important in protecting the health of your kidneys.

Protein and Dialysis

Dialysis filters and removes waste products from your blood, but it removes protein from your blood too. People who receive regular dialysis treatments need extra protein in their diet.

Your dietitian will work with you to figure out how much protein you need to eat to keep your body healthy and strong.

What are some examples of protein foods?

You need _____ protein choices each day.

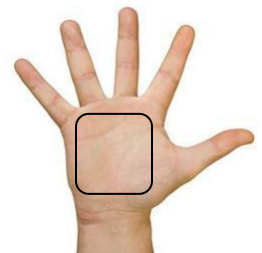
Food Type	1 Protein Choice =
Eggs	<ul style="list-style-type: none">• 1 large egg• 2 egg whites
Meat, fish & poultry	<ul style="list-style-type: none">• 1 ounce (30 grams or 4" x 2" x ¼" slice) meat of beef, pork, veal, chicken, turkey, goat, lamb• ¼ can of canned fish• 3 medium sized shrimp, or shellfish• 1 ounce (30 grams) fish of any kind• 1 chicken wing• 1 small lamb chop• ¼ cup (60 ml) crab, lobster or shrimp• 1 to 2 thin slices of low sodium luncheon meat (least preferred choice)

Food Type	1 Protein Choice =
Dairy Products	<ul style="list-style-type: none"> • 1 ounce (30 grams or 1" cube) of *hard cheese such as Colby, Swiss, cheddar, mozzarella, gouda, gruyere, provolone, camembert • 1 ounce (30 grams or 1" cube) of *soft cheese such as brie, goat
	<ul style="list-style-type: none"> • ¼ cup (60 ml) cottage cheese, ricotta
	<ul style="list-style-type: none"> • ½ cup (120 ml) Greek yogurt*
	<ul style="list-style-type: none"> • ¾ cup(180 ml) regular yogurt*
	<ul style="list-style-type: none"> • 1 cup (240 ml) milk*
Vegetarian Sources*	<ul style="list-style-type: none"> • 2 tablespoon (15 ml) peanut butter*
	<ul style="list-style-type: none"> • ½ cup (120 ml) tofu*
	<ul style="list-style-type: none"> • ½ cup (120 ml) dried beans, peas or lentils*
	<ul style="list-style-type: none"> • 1/3 cup (80 ml) hummus*

Foods high in potassium or phosphorus

Note:

- **3 protein choices (3 ounces or 90 grams) of meat = the size of deck of cards or palm of hand**



Limit these protein choices that are high in salt or phosphorus:

- Ham, bacon, bologna, salami, corned beef, sausage, wieners, or hot dogs
- Organ meats such as liver, heart, kidney
- Blue cheese, feta cheese, processed cheese slices or spreads
- Salted or pickled fish (pickled herring, salt cod, sardines, anchovies), oysters



Protein Supplements:

If you feel unwell, you may not feel like eating certain high protein foods. There are nutrition products you can buy to help supplement your protein intake. Some examples are protein powders or gels, supplement or protein drinks, skim milk powder and protein bars.

Your dietitian can help you decide if any of these types of products would help and which ones are better than others for you.

How can I increase the amount of protein I eat?

Here are some tips to increase the amount of protein in your diet every day:

- Eat your biggest meal at a time in the day when your appetite is best.
- Include a protein item, even if it is a small portion in each meal. For example, add an egg, peanut butter or cheese to your breakfast.
- Do not miss a meal as it is harder to make up for protein at another meal.
- If you have a small appetite, snacks help add extra protein and calories. Therefore, try to eat between meals and before bedtime.
- Add cooked, diced or ground meat or poultry to soups, casseroles, stews, salads, omelets, quiches and rice.
- Use cottage cheese with fruit, peanut butter on Melba toast, and cheese with muffins.
- Add tuna or grated hard-boiled egg to sauces. Serve over pasta, rice or toast.
- Blend cottage cheese with sour cream and herbs to dip vegetables.
- Eat healthy fats to boost up calories so your body can get good use of proteins.
 - Use extra-unsalted margarine, oils, or sour cream on vegetables, pasta, noodles, potatoes, bread and rolls
 - Use homemade salad dressings on salads.

Remember:

- **Your dietitian is available to help you.**