



ALBUMIN: WHAT IS IT?

Every month your dialysis center draws “monthly labs” which are a variety of blood tests to see how well you are doing on dialysis. One of the tests checks your albumin level. In your monthly lab review the dietitian may tell you your albumin level is “fine, low or high” and if it’s low may say to you “you need to eat more protein”. What does that mean to you and how are albumin and protein connected?

Albumin is a major protein found in the blood and testing albumin levels helps assess a person’s nutritional status and risk for malnutrition. Protein helps with growth and maintenance of body tissue, prevention of anemia, and prevents loss of muscle mass. It also plays a big role in fighting off infections, healing of wounds, provides a source of energy to the body and helps keep a balance among body fluids. When a person does not eat enough calories or protein, the liver does not have enough protein to make new albumin, which causes lower albumin levels in the blood. Research has shown that patients with low albumin levels over time have a higher risk of death.

If you do not eat the protein the body requires, the body will destroy your muscles to get the protein it needs therefore, making you weak. This happens because when protein intake is low; the body “borrows” protein from the muscles for vital functions. If that “borrowed” protein is not replaced by the diet, muscle tissue is lost and weakness occurs. Getting enough protein and calories by improving your diet will reverse the protein loss.

Albumin level in the body can be affected by a number of health conditions such as having a history of liver disease, since albumin is made in the liver. It can also be low in persons with a history of certain kidney diseases that cause protein to be lost in urine. Albumin levels can also drop quickly if an infection develops.

Hemodialysis treatments filter wastes from your blood but also remove protein. Peritoneal dialysis (PD) also removes protein in your PD fluid. If you don’t eat enough protein to replace what’s lost in dialysis treatments, your body will start to use up the protein in your muscles for fuel. Sometimes it is hard to tell exactly what has caused the decrease in albumin levels, your health care team will use the albumin test along with other tools to monitor weight and muscle tone, and review other blood tests to get a complete picture of your nutrition status.

The normal range for albumin is 3.5 to 5.5 g/dl (optimal level: 4.0g/dl). This may vary slightly between laboratories and the method the lab uses to process the blood sample. Check with your center’s renal dietitian to see what your goal for albumin should be. Most people on dialysis should try for a goal of 8-10 ounces of protein each day, or 10-12 ounces for those on peritoneal dialysis. Check with your dietitian for your specific protein goal. Adequate protein intake is essential to maintenance of good health, longer life for people on dialysis, muscle maintenance and strength.



HIGH ↑
Quality/Complete
Sources of Protein

- Chicken (skinless)
- Turkey
- Fresh pork (pork tenderloin)
- Duck

- Fish/seafood (avoid breaded)
- Lean meats (chuck roast, eye round, lean ground beef, t-bone, sirloin)

- Lamb
- Eggs (one whole or two egg whites)
- Protein powders (check with dietitian)

LOWER ↓
Quality/Incomplete
Sources of Protein

- Grains (cereals, breads, crackers, rice, pasta, corn meal)

- Vegetables (green beans, cauliflower, raw spinach, carrots)

- Fruits

Protein for
Vegetarians

- Soy products
- Tempura

- Edemame
- Dairy products (as advised by dietitian)

- Protein powders (check with dietitian)

Important: To know the portions that are right for you, consult with your dietitian.



At each meal try to include one high quality protein food

Eat protein snacks, such as an egg, salad, sandwich or tuna on crackers

Try to eat 5 to 6 small meals a day

Don't eat all of the protein foods at one time during the day

Fish is an excellent source of protein

Speak with your dietitian before taking a protein supplement