

ALBUMIN

Albumin is a protein made by the liver and found in the blood. It's the most common protein in human blood, making up about 60% of the total protein. Albumin has many jobs in the body helps keep the right amount of water in our blood and tissues, carries hormones and drugs around the body, helps control the body's pH level, and helps the immune system. Its main job is to keep the right balance of water between the blood and tissues, making sure we stay hydrated. It also helps prevent fluid from leaking out of our blood vessels into nearby tissues.

Low levels of Albumin:

Liver disease: Conditions such as cirrhosis, hepatitis, or liver failure can impair the liver's ability to produce albumin.

Kidney disease: Albumin may be lost through the urine in conditions such as nephrotic syndrome or chronic kidney disease.

Malnutrition: Inadequate intake of protein or calories can lead to low albumin levels.

Gastrointestinal disorders: Conditions such as inflammatory bowel disease (IBD), celiac disease, or malabsorption syndromes can affect the absorption of nutrients, including albumin.

Chronic inflammation: Conditions associated with chronic inflammation, such as rheumatoid arthritis or systemic lupus erythematosus (SLE), can lead to decreased albumin levels.

Acute illness or injury: Severe burns, trauma, or major surgery can cause a temporary decrease in albumin levels due to increased protein loss or reduced production.

Fluid retention: In some cases, dilution of albumin due to fluid retention (edema) can lead to lower apparent levels of albumin in the blood.

High levels of Albumin:

Dehydration: One of the most common reasons for elevated albumin levels is dehydration. When the body is dehydrated, the concentration of albumin in the blood increases due to a decrease in blood volume.

Excessive protein intake: Consuming an excessive amount of protein through the diet or supplementation can lead to higher albumin levels.

Burns or trauma: Severe burns, trauma, or tissue damage can cause the body to release more albumin into the bloodstream as part of the inflammatory response.

Chronic infections or inflammatory conditions: Conditions associated with chronic inflammation or infection, such as rheumatoid arthritis or inflammatory bowel disease, can lead to elevated albumin levels.

Certain medications: Use of corticosteroids, androgens, or anabolic steroids can sometimes increase albumin levels.

Hemoconcentration: Conditions that cause hemoconcentration, such as dehydration, shock, or polycythemia vera (a disorder characterized by an excess of red blood cells), can lead to elevated albumin levels due to a decrease in plasma volume.

Genetic factors: In some rare cases, genetic factors may contribute to higher albumin levels.