

## Albumin and Chronic Kidney Disease

### What is albumin?

- Albumin is a protein, found in animal sources such as meats, milk-products, and eggs. It is also found in plant sources such as beans, nuts, and seeds.
- Albumin provides the body with the protein needed to both *maintain growth* and *repair tissues*. It can also help with *fluid removal* during the dialysis treatment. If your albumin level is good, fluid will move more easily from swollen tissues into the blood, where it can then be removed by the dialyzer.
- For dialysis patients, the preferred range for the serum (blood) albumin is 4.0 g/dl or greater.

### What can cause your Albumin level to drop?

There are a wide variety of reasons an albumin level may become low. Areas may include:

#### Inadequate nutrition (not eating enough protein)

- Lack of appetite possibly from poor dialysis (a low Kt/V), an illness, a side effect of medications, or feeling depressed can all lead to a poor intake of protein-rich foods. Not knowing what foods to eat or not having protein-foods available can also create a poor albumin level.

#### Protein loss

- With some types of kidney disease, protein may be lost in the urine (proteinuria).
- With peritoneal dialysis, some protein crosses the peritoneal membrane and exits the body in the effluent dialysate (the solution drained from the peritoneal cavity). This loss increases in a person with peritonitis, an infection of the peritoneum.
- Liver disease (protein is synthesized in the liver) or blood loss can also cause the albumin level to drop.

#### Inflammation

- Albumin levels decrease when an inflammation is present.
- Examples of a sudden inflammation include (1) an access infection, (2) an infected foot, (3) gum disease, (4) a urinary tract infection, (5) a myocardial infarction (heart attack), or (6) recent surgery.
- Chronic inflammation, such as present with arthritis or cancer, also can cause the albumin to drop.

**Our goal: An acceptable Albumin level**

As the title indicates, keeping an acceptable albumin level is more complicated than just eating a good portion of meat each day. Many areas other than diet can also affect your albumin.

To help achieve an albumin of 4.0 mg/dl or greater, your **dialysis team**:

- *Monitors* your monthly albumin level.
- *Provides dietary education.*
- *Helps with both the prevention and treatment of inflammations and infections.*

**You** can help by:

- *Eating* adequate protein.
- Reporting any signs or symptoms of an infection or an inflammation.
- *Preventing* infections through good hygiene practices.