

## CIRRHOSIS (Low Sodium – Low Protein)

**Similar to people without cirrhosis, people with cirrhosis should limit their intake of fats and eat lots of fruits, vegetables, whole grains, and other heart-healthy foods. However, some diet changes that are unique to those with cirrhosis include limiting salt, eating more calories and protein, and eliminating alcohol. Cirrhosis occurs when damaged liver cells are replaced with scar tissue. Too much scarring prevents blood from flowing normally through the liver. This causes even more damage and loss of liver function. Cirrhosis can hinder the body's use of nutrients and can lead to malnutrition.**

A diet for people who have cirrhosis should be similar to a diet for people without the condition. The ideal cirrhosis diet is a heart-healthy diet -- or one that is low in fats and high in fruits, vegetables, and whole grains. It is also important that people with cirrhosis maintain a healthy weight. But there are a couple of other diet changes unique to people with cirrhosis. A few of these changes include:

- Limiting salt
- Eating more calories and protein
- Eliminating alcohol.

### Limiting Salt

Many patients with cirrhosis tend to hold onto (retain) water. This is often first shown by swelling in the ankles, particularly after walking. The swelling may move up the legs to the abdomen. Water buildup in the abdomen is called "ascites." Too much sodium (salt) in the diet can make the situation worse, because sodium encourages the body to retain water. Your doctor will tell you if you need to limit sodium in your diet. This usually means restricting sodium intake to about 2,000 mg a day or less.

If you need to restrict sodium, here are some tips that can help:

- Avoid salty foods, salt in cooking, and salt at the table. Anything that tastes salty (such as tomato sauce, salsa, soy sauce, or canned soups) probably has too much salt. Try spicing things up with lemon juice or herbs instead of salt. Fresh foods are usually a better bet than processed foods.
- Read food labels when shopping. Check the amount of sodium in the foods you are buying.
- Avoid fast-food restaurants. Most fast foods are very high in sodium.
- Go easy on meats -- especially red meats, which are high in sodium. When possible, consider vegetarian (meat-free) alternatives.

The more fluid you retain, the greater your need to avoid salt. Your doctor may prescribe diuretics ("water pills") to help you urinate more. But all the water pills in the world won't help if you eat salty foods such as anchovy pizzas.

### Calories and Protein

People with cirrhosis may need more calories and protein than other people. They may lose their appetite and experience nausea, vomiting, and severe weight loss. This can lead to a shortage of the minerals calcium and magnesium. Signs of low calcium and magnesium levels can include:

- Muscle cramps
- Fatigue
- Weakness
- Nausea
- Vomiting.

Poor appetite, vomiting, and weight loss can also lead to a shortage of zinc (signs of a zinc shortage can include a reduced ability to taste and/or changes in taste). It can help to eat small, frequent meals (four to seven times a day), including an evening snack. Your doctor may even recommend high-nutritional supplement drinks, such as Ensure® or Boost®.

When the scarring from cirrhosis prevents blood from passing through the liver, pressure increases in the veins entering the liver. This is called "portal hypertension." The body is forced to reroute the blood away from the liver and into the general blood circulation. This causes large blood vessels, called "varices," to form.

Because the rerouted blood bypasses the liver, it contains high levels of amino acids, ammonia, and toxins that normally would have been handled by the liver. When these substances reach the brain, they can cause confusion and temporary loss of memory (a condition called "hepatic encephalopathy").

Amino acids and ammonia come from protein in the diet. Some evidence shows that patients with cirrhosis do better when they get their protein from vegetables (such as beans, lentils, and tofu) and from dairy products (including eggs, milk, and yogurt) instead of from meats.

Doctors can prescribe a syrup called lactulose (Acilac<sup>®</sup>, Enulose<sup>®</sup>, Constulose<sup>®</sup>, Generlac<sup>®</sup>) to push food through the bowels more quickly. This way, less food is absorbed, the liver has less work to do, and fewer toxins make their way to the brain.

### **Is Alcohol Okay With Cirrhosis?**

Alcohol is a strong toxin to the liver. Quite simply, people with cirrhosis should avoid alcohol completely. There is no evidence for a safe level of alcohol for people with cirrhosis.