



# CIRRHOSIS AND PROTEIN NEEDS

Individuals with cirrhosis can experience excess muscle and body fat loss. Sometimes this is difficult to detect because of fluid retention. For example, you may be losing muscle, but if you are retaining fluid, you may stay the same weight. If not corrected, muscle and body fat loss can result in a variety of health complications, including malnutrition. A moderately high protein diet is important for people with cirrhosis as the protein is used to maintain muscles and rebuild blood and body tissues. Some people believe that people with liver disease need to avoid protein to help prevent a condition called hepatic encephalopathy, however, this is not the case. Hepatic encephalopathy is best treated by medications and avoiding protein could make you more malnourished. To help prevent muscle and fat loss, you need to eat healthy sources of energy and protein.

## HOW MUCH PROTEIN?

To calculate estimated minimum daily protein requirements in grams, use the calculation below:

$$.45 \times (\text{weight in pounds}) = (\text{daily grams of protein})$$

Food	Serving Size	Grams of Protein
Milk	8 ounces	8 grams
Egg	1 large	6 grams
Hamburger (extra lean)	3 ounces	22 grams
Chicken	3 ounces	27 grams
Fish	3 ounces	22 grams
Yogurt	8 ounces	8 grams
Hard Cheese	1 ounce	7 grams
Mixed Nuts	1 ounce	5 grams
Tofu	½ cup	7 grams
Lentils, cooked	½ cup	17 grams
Kidney Beans, cooked	½ cup	8 grams

## 5 TIPS TO INCREASE YOUR ENERGY AND PROTEIN INTAKE

Try to eat small frequent meals. Turn 3 large meals into 4-7 small meals to get enough calories and protein for muscles and organs. Small frequent meals are also useful if you feel full quickly or if your appetite has decreased.

Choose nutrient dense foods, such as whole milk and dried fruit more often than skim milk or fruit juices. Individuals with cirrhosis tend to better tolerate the protein from dairy and plant sources than from meat sources. Try adding foods like eggs, beans, tofu, lentils, yogurt, or low salt cheese to your meals.

Have a small protein rich snack, like a glass of milk and crackers, before bed.

Talk to your doctor or dietitian about a nutritional supplement if you cannot eat enough to maintain your weight.