

LIVSMART

High Protein Diet



Nutrition is important in cirrhosis because it:

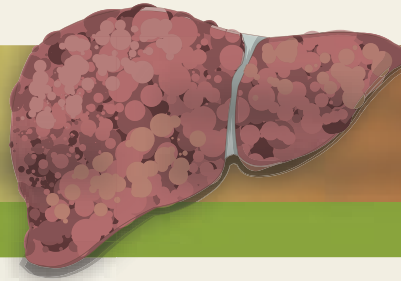
- Helps the liver perform its many functions
- Your body needs more protein and calories than it has in the past
- The body may not be able to store as many nutrients as usual
- Lowers the risk of infections
- Lowers the risk of fluid retention (ascites)
- Provides energy for daily activities and socializing!

Energy

Cirrhosis puts your body's metabolism in hyperdrive. This means you need to increase the amount of protein you eat and avoid fasting or long breaks between meals/snacks. Without extra protein, your body may breakdown your own muscle for energy.

Additional Resources:

- ➔ Watch this video about cirrhosis and high-protein diet: https://careguides-videos.med.umich.edu/media/t/1_jv4917u4/217471463
- ➔ For additional information about nutrition in cirrhosis visit: <https://wellnesstoolbox.ca/cirrhosis/nutrition/nutrition-in-cirrhosis/>



Liver Health



If you have cirrhosis you:

Diet



When to eat?



Need to:

- Eat healthy - veggies and whole foods
- Eat high-protein foods
- Avoid alcohol
- Avoid added salt and salty foods

Need to:

- Eat every 2-4 hours when awake
- Have a late evening snack before bed
- Eat a snack in the middle of the night if awake!

Meal and snack timing

Small, frequent, and protein rich meals evenly distributed throughout the day will help preserve muscle mass. This means having 6 small meals every day, or eating every 2-4 hours while awake.

A late evening high-protein snack is recommended about 1-2 hours before bedtime, such as:

- 1 bottle of high calorie nutritional meal supplement (e.g. Ensure Enlive, BOOST High Protein)
- Peanut butter on 2 slices of whole grain toast
- 1 glass of milk mixed with 1 tbsp whey protein powder
- 3/4 cup greek style yogurt

Protein

The body needs protein for many functions of the body, such as building and maintaining muscle, healing tissues, and supporting the immune system. Patients with cirrhosis need more protein than the average person.

Understanding how much protein you need

The goal is to eat 1 gram of protein for every kilogram of your body weight. For example, if you weigh 150 lbs, then you need 70g/day. If you weigh 200 lbs, then you need 90g/day. If you weigh 250 lbs, then you need 115g/day.

How to meet your protein goal:

Include a variety of protein-rich foods at every meal and snack (see examples on next page). Eating multiple sources of protein-rich foods will reduce the chance of repetition and food boredom.

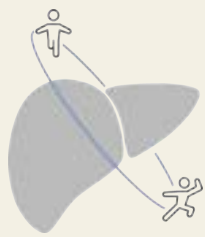
Make your calories count!

Drink high calorie and protein meal replacement drinks. Look for ways to add high protein sources like egg, milk, peanut butter, tofu, lentils, beans and meat to your recipes.

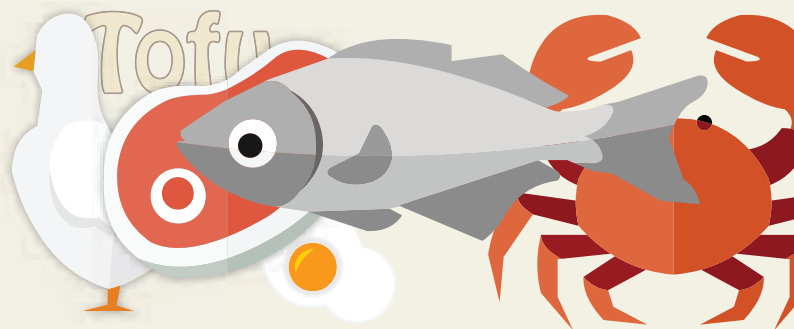
When should meal supplement drinks be used?

Meal supplements can be used freely. For example, use after or instead of a meal if troubled by a poor appetite or getting full quickly. Meal supplements can also be snacks between meals.

Do you need help? Ask your liver specialist for referral to a nutritionist if you need help or guidance on caloric needs.



Protein



2.5 oz of meat is:
the size of a deck of cards



Food Item	Measure	Equivalents	Weight (g)	Protein (g)	Sodium (mg)
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Meat and Meat Alternatives

Lean Beef, Pork, cooked	2.5 oz	deck of cards	75	25	45
Tofu (regular, firm, extra firm)	150 g	hockey puck	150	21	26
Chicken, Turkey, cooked	2.5 oz	deck of cards	75	20	50
Fish, baked/steamed	2.5 oz	"	75	18	40
Canned fish in water, low sodium	75 g (1/3 cup)		75	18	50-70
Chick Peas, Beans, Lentils, canned	3/4 cup	tennis ball	175 ml	11	30
Peanuts, Almonds (unsalted)	1/2 cup	2 golf balls	37	8	2
Peanut Butter	2 tbsp	golf ball	30 ml	7	2
Egg	1 large		50	6	65
Shrimp, boiled/steamed	6 small		30	6	67

Dairy Products and Supplements

Whey Protein Powder	2 tbsp	golf ball	28	20	120
Yogurt, Greek, plain, flavoured	3/4 cup	tennis ball	180	16	65
Meal Supplement Drinks, high protein	1 bottle		235 ml	12-15	200-290
Swiss Cheese (from block)	1.5 oz	9-volt battery	50	13	96
Cheddar Cheese (from block)	1.5 oz	"	50	12	300
Mozzarella Cheese	1.5 oz	"	50	10	186
Yogurt, plain, flavoured	3/4 cup	tennis ball	180	9	115
Milk, skim, 1%, 2%, whole	1 cup		258	9	105
Milk, 1% chocolate	1 cup		258	9	152
Soy beverage, unsweetened	1 cup		257	7	95

Grains and Starches

Clif Builder's® Bar	1 bar		68	20	200
Granola Bar, Nature Valley® Protein	1 bar		40	10	180
Special K® Protein cereal, Kellogg's®	1 cup	fist	50	10	125
Pasta, spaghetti, cooked	1 cup	fist	140	8	1
Bagel, plain	1 bagel		71	7	318
Bread, pita, whole wheat (16.5 cm) diameter	1 each		64	7	372
Bread, whole wheat	1 slice		35	5	165