

**facts about...**

# HIGH PROTEIN-HIGH ENERGY DIET

## HIGH PROTEIN-HIGH ENERGY DIET

**Information for Patients with Severe Liver Disease**
**I have been recommended to follow a high protein-high energy diet.**
**What does this mean?**

Many people with severe liver disease suffer from malnutrition. Because of fluid retention in the abdomen and lower legs, there may not be much change in overall body weight, however significant loss of weight around the face, upper body, arms and thighs may be obvious.

Protein requirements in people with advanced liver disease are almost double those of a healthy adult. Research has shown that the higher protein requirements are due to a change in the mixture of energy sources used by the body in advanced liver disease. Without an adequate protein intake your body will breakdown muscle to meet your protein needs, leading to muscle wasting and a loss of strength. A high energy diet is also required to maintain your fat stores at an adequate level because in advanced liver disease you may start using your fat stores as the main energy source.

**What is a high protein-high energy diet?**

A high protein-high energy diet provides 1 to 1.5 grams of protein per kilogram of body weight per day and adequate energy to maintain your fat stores. A sample high protein-high energy meal plan is shown overleaf.

**How do I follow a high protein-high energy diet?**

Rich food sources of protein include: meat, fish, poultry, eggs, nuts, seeds, legumes (e.g. baked beans, soy beans, lentils etc), milk, cheese, yoghurt and any foods made from these.

By having protein at each meal and high protein snacks in between meals you will be following a high protein diet.


**HIGH PROTEIN-HIGH ENERGY DIET**

**You should not restrict the intake of protein, carbohydrate or fat in your diet.**

Energy is measured in kilocalories or kilojoules. We get energy from protein, carbohydrate and fat in foods. You should not restrict the intake of protein, carbohydrate or fat in your diet. The only restriction to your diet should be restricted salt intake if you suffer from fluid retention.

**What are some of the barriers to following a high protein-high energy diet?**
**A. Changed sense of taste**

Often people with advanced liver disease find their sense of taste has changed and they no longer enjoy eating some foods that they used to enjoy eating, e.g. red meat which

is an excellent source of protein. The changed sense of taste may be due to mineral deficiencies in your diet that could be identified by a blood test and corrected with a mineral supplement. If you have a changed sense of taste, please discuss this with your doctor and dietitian.

**B. Lack of appetite**

Lack of appetite can occur for many reasons, including a changed sense of taste. If food doesn't taste as good as it used to, you may lose your desire to eat. Lack of appetite can also be associated with a symptom of liver disease called ascites (fluid collecting in the abdomen) which may make you feel uncomfortable after eating large meals due to fluid exerting pressure on the stomach. The stress of living with a chronic disease can also cause you to lose your appetite. If you have noticed you are eating less than normal or you don't feel hungry at meal times, eat smaller meals and have high protein snacks in between meals. While you are awake

eating a small amount every 2 to 3 hours is a good way to meet your nutritional requirements even though you may not feel hungry.

### C. Other dietary needs

You may not eat all the high protein foods listed right for a variety of reasons. If you are vegetarian, you can get adequate protein from legumes, nuts and seeds and foods made from these. Soy milk and soy products are a suitable high protein substitute for cow's milk and milk products if you are unable to eat dairy products. If you have diabetes or glucose intolerance you can still follow a high protein-high energy diet and include a moderate amount of carbohydrate across the day to assist in controlling your blood sugar levels. If you are on a restricted diet and have muscle wasting and/or weight loss please consult a dietitian for additional advice on meeting your individual protein and energy needs in advanced liver disease.



## SAMPLE HIGH PROTEIN-HIGH ENERGY MEAL PLAN

### **Breakfast**

Cereal and full cream milk.  
*or*  
Eggs (cooked to your liking) with buttered toast.  
*or*  
1 cup yoghurt or custard with fruit.  
Hot chocolate or coffee made with milk, or a glass of milk.

### **Snack**

Peanut butter on toast.  
*or*  
Cheese and crackers.  
*or*  
Milkshake make with full cream milk.

### **Lunch**

Sandwich with roast meat, chicken, fish, egg or cheese.  
*or*  
Baked beans, eggs or grilled cheese on buttered toast.  
*or*  
Meat, fish or poultry with buttered vegetables or salad. Dessert if desired.  
Glass of full cream milk.

### **Snack**

Custard or yoghurt with fruit.  
*or*  
Hard boiled egg.  
*or*  
Handful of nuts.

### **Dinner**

Meat, fish or poultry with buttered vegetables or salad.  
*or*  
Pasta with meat sauce and salad.  
*or*  
Toasted cheese sandwich.  
Dessert if desired.

### **Bedtime Snack**

Milkshake or hot milk with honey or other flavourings.

*This information booklet has been designed by the Digestive Health Foundation as an aid to people who need a high protein-high energy diet or for those who wish to know more about it. This is not meant to replace personal advice from your medical practitioner.*

*The Digestive Health Foundation (DHF) is an educational body committed to promoting better health for all Australians by promoting education and community health programs related to the digestive system.*

*The DHF is the educational arm of the Gastroenterological Society of Australia, the professional body representing the Specialty of gastrointestinal and liver disease in Australia. Members of the Society are drawn from physicians, surgeons, scientists and other medical specialties with an interest in GI disorders.*

*Since its establishment in 1990 the DHF has been involved in the development of programs to improve community awareness and the understanding of digestive diseases.*

*Research and education into gastrointestinal disease are essential to contain the effects of these disorders on all Australians.*

*Further information on a wide variety of gastrointestinal conditions is available on our website.*



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*This brochure is promoted as a public service by the Digestive Health Foundation. This leaflet cannot be completely comprehensive and is intended as a guide only. The information given here is current at the time of printing, but may change in the future.*

*If you have further questions you should raise them with your own doctor.*  
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