

## Eating for Liver Disease and good liver health

*Care of Amy Symington*

When we speak about liver disease prevention and management, our brains often go right to the worst case scenario, which is liver cirrhosis. Liver cirrhosis can be caused by many things like genetics, chronic Hepatitis, alcoholism, infections or viruses, and metabolic syndrome. With liver cirrhosis the metabolisms of our nutrients are often negatively affected and can increase the likelihood of malnutrition.

With that said, diet can play a very important nutritional therapy role in managing liver disease and is one of the most important tools in reducing the use of artificial nutrition. The primary focus is to ensure that the patient is receiving enough nutrients and calories and the appropriate amount of protein and digestible fat for their specific needs.

In the absence of brain malfunction or disease it has been found that increasing protein intake by nutrition therapy with cases of liver cirrhosis can decrease risk of mortality.

### General recommendations

- 35-40 cal/kg/d
- Protein requirements are generally higher 1-1.5g/kg/d without the presence of brain disease and 0.6-0.8g/kg/d with the presence of brain disease/malfunction
- Eat smaller meals throughout the day and include one late night carb-rich snack to help improve nitrogen economy in the liver
- Focus on plant-based proteins over animal based – as they tend to contain higher levels of certain types of amino acids (valine and arginine) which have been shown to be beneficial in managing liver disease
- Sodium and fluids may need to be restricted in the presence of edema and/or fluid accumulating in the abdominal region. Lower sodium diets, in particular, can help reduce the accumulation or retention of fluids
- Malnutrition is often a side effect of liver disease and so vitamin and mineral supplementation to meet 100% of RDAs is often recommended.
- Lower fat diets encouraged – particularly those foods high in animal based saturated fats – Medium chained triglycerides like coconut oil because it is digested and absorbed more readily in the absence of bile. Olive oil is recommended over butter, shortening, margarine or other vegetable oils.
- Vegetarian, vegan or Whole food plant-based diets are highly recommended as they contain higher levels of vitamins and minerals over all, are high in fibre and have been shown to improve nitrogen balance and lower blood ammonia concentrations in patients with liver cirrhosis.
- Vitamins and minerals to be aware of include vitamin A and/or the carotenoids, folate and the B vitamins in general, vitamin E, vitamin K (broccoli, avocado, spinach, strawberries, etc.),

selenium and zinc. So focusing on anti-oxidant rich foods like fruits, vegetables, nuts, seeds, legumes whole grains and good quality plant-based protein is also recommended

- Protein-energy malnutrition is common in 65% to 90% of patients with cirrhosis
- Late night carbohydrate rich snack is recommended to help improve the serum albumin levels. Low albumin levels indicate the presence of inflammation and diseases like liver disease
- Most importantly consult your healthcare team and a registered dietitian or accredited expert in the field.

Resources:

- Sidiq and Khan (2015). Nutrition as Part of Therapy in the treatment of liver cirrhosis.