

Foods that Love the Liver

Our livers have to put up with a lot in this world. Some of the functions of this organ include: 1) metabolizing (altering in some way) proteins, carbohydrates and fats from our food; 2) producing cholesterol (which is then used in bile acids and fat digestion); and 3) producing proteins necessary for blood clotting and fluid balance in the body. But the toughest job this organ may be responsible for is detoxification: this means alcohol, pesticides, herbicides, air pollutants, anything that is toxic to our cells. Foods for the liver can therefore benefit anyone, although those with a liver disease will benefit more profoundly. Since pesticides and herbicides are toxins that increase the liver's workload, eating organic foods will be a significant help. The cost is often somewhat higher but the nutrition count is also higher, as is the benefit to the body. So whether it is a food or herb listed, always think organic first, and you'll already be on the way to easing the load on your liver.

Vitamins and Minerals

Vitamin C is an antioxidant, which means that it scavenges for toxic chemicals that damage our cells. In this capacity it is protective to the liver. Vitamin C is destroyed by exposure to air, so the fresher you can eat these fruits and vegetables, the more concentrated their levels of the vitamin will still be. For example, a cantaloupe that is left uncovered in the fridge will lose 35% of its Vitamin C in less than 24 hours. Foods high in Vitamin C are:

Acerola cherries (very high)	Mustard greens	Cantaloupe
Rose hips	Cauliflower	Asparagus
Red chili peppers	Red cabbage	Mangoes
Guava	Strawberries	Green sweet peppers
Red sweet peppers	Papaya	Broccoli
Kale	Spinach	Brussel sprouts
Parsley	Kiwi fruit	
Collard greens	Citrus fruits	

Vitamin E is also an antioxidant, so is protective to the liver. Studies have shown success with using Vitamin E supplementation in treating damaged livers. Sources of Vitamin E in foods include:

Almonds	Asparagus	Walnuts
Filberts	Avocados	Tomatoes
Sunflower seeds	Green leafy vegetables	Whole grains

Zinc is a mineral that is an antioxidant, hence protective to the liver. Food sources of zinc are:

Oysters, fresh (very high)	Oats	Whole wheat
Pumpkin seeds	Peanuts	Rye
Ginger root	Lima beans	Buckwheat
Pecans	Almonds	Filberts
Split peas	Walnuts	Green peas
Brazil nuts		

Selenium works with Vitamin E as an antioxidant. Foods high in selenium are:

Wheat germ	Oats	Bran
Brazil nuts	Molasses	Red Swiss chard
Nutritional yeast	Brown rice	Orange juice
Barley	Turnips	Shellfish
Whole wheat bread	Garlic	

Magnesium One of the main detoxification pathways in the liver is called the P450 system. This system requires Magnesium to function properly; therefore the liver as a whole benefits from this mineral. Food sources of Magnesium are:

Kelp (very high)	Filberts	Buckwheat
Wheat bran	Peanuts	Brazil nuts
Wheat germ	Millet	Dulse
Almonds	Pecans	Coconut
Cashews	Walnuts	Soybeans
Blackstrap molasses	Rye	Brown rice
Brewers' yeast	Tofu	

B Complex Vitamins are important when there has been liver disease due to alcohol damage. Some of the B Vitamins assist the liver in detoxification, and therefore become depleted from excessive alcohol consumption. The chief reason that excessive alcohol causes B Vitamin depletion is probably through impaired digestion and absorption in the intestines. Food sources of the B Complex include:

Nutritional yeast	Peanuts	Buckwheat
Wheat germ	Pine nuts	Wild rice
Sunflower seeds	Sesame seeds	Brown rice
Almonds		

Amino Acids

Methionine and Cysteine Proteins are made up of chains of amino acids, and certain of these are known to protect the liver from damage by toxic chemicals. Many toxic substances are fat soluble, but if they are converted to a water-soluble substance they can be easily excreted from the body via the urine. The sulphur-containing amino acids Methionine and Cysteine are particularly adept at this. Food sources for these amino acids are:

Egg yolks	Onions	Sesame seeds
Red peppers	Broccoli	Whole grains
Garlic	Brussel sprouts	Legumes

Vitamin-Like Substances

Carnitine helps the liver in the metabolism of fats. It is necessary when there has been history of a high fat diet, high alcohol consumption or drug usage, or toxic exposure (remember that most toxins are fat soluble). Food sources of carnitine are:

Fish	Tempeh	Milk products
Poultry	Wheat	Avocados

Choline is also needed for the proper metabolism of fats by the liver. It also helps increase the solubility of the bile, which travels between the liver and the gall bladder. Food sources of Choline are:

Soybeans	Fish	Cabbage
Egg yolk	Peanuts	Lentils
Nutritional yeast	Cauliflower	Chick peas
Wheat germ	Lettuce	Brown rice

Inositol works closely with choline, assisting the liver in metabolizing fats and promoting smooth bile flow. Food sources of inositol include:

Citrus fruits (except lemons)	Lentils	Blackstrap molasses
Brown rice	Wheat germ	Nutritional yeast
Chick peas	Oats	Raisins
Cantaloupe		

Herbs and Spices

Some herbs have been used for thousands of years in the treatment of liver disease, as references have been found as far back as 600 B.C. Research in Japan, India, and Europe has confirmed the powerful actions of these herbs.

Ginger has been shown to decrease cholesterol in the liver and increase bile flow from the liver to the gall bladder. Ginger is also considered to be a liver tonic, therefore promoting liver health in general. The best way to purchase Ginger is fresh and organic, if possible. This spice goes well mixed with a vegetable stir fry, in a carrot ginger soup or juice, in a baked spicy bread, or even as a tea on its own with a bit of honey.

Turmeric is in the same family as Ginger. It has been found to have antioxidant properties, and current research shows it as a more powerful antioxidant than Vitamin E. It also assists in increasing bile secretion from the liver. It is more difficult to find fresh Turmeric but it looks somewhat similar to Ginger, although it is yellow. It is the ingredient in curry that gives it its characteristic yellow color but is not one of the hot spices. Turmeric mixed with Ginger would go well on rice, or as a combination in soups or with vegetables.

Dandelion was used in the past as a “spring tonic”, the theory being that after a winter of eating heavy fattier foods, the body and blood were cleaned out with these greens. In fact this plant does have blood-cleansing properties, and as the liver is prone becoming fatty, the concept of using a spring tonic is still relevant, and especially important with liver disease. Dandelion leaves go well in a salad. The whole plant including the root provides the best benefit, and this can be ground up into juice, mixed with carrot or apple for example. Another alternative is to dry the root and grind it with chicory root for use as a hot drink.

Milk Thistle The last herb mentioned here is not one that you will find in the spice department, but it is so beneficial to the liver, especially damaged livers, that it is worth mentioning. This plant has been found to actually regenerate damaged cells and increase DNA synthesis in the liver. Even more wonderful is that this effect does not occur with malignant cells. One of the best ways that I have found

to include this as a food in my diet is in a seasoning salt. Milk thistle seeds can often be found in health food or herb stores. Seaweed can be bought bulk or packaged in health food stores.

Milk thistle seasoning salt

You will need a clean coffee grinder for this, preferably one that is only used for grinding herbs. Coffee is hard on the liver, so you want to avoid getting any in your liver-loving seasoning salt.

½ cup milk thistle seeds

½ cup dried seaweed

1 cup of your favorite herbs (basil, oregano, dill, whatever you like!)

Grind the seeds first and put in a bowl. Grind the seaweed next. This is the trickiest part, and the drier the seaweed, the easier it will be. It doesn't matter if some of it is not entirely ground. Add the seaweed to the ground milk thistle seeds. Next grind the herbs. Add all the ingredients together and mix well. Keep this on the table where you eat, and sprinkle it on your food. It can be added during cooking too. The combination of milk thistle and seaweed is a dynamite one for liver health.

References:

E.M Haas. Staying Healthy with Nutrition (Celestial Arts, Berkeley, CA) 1992.

B. Jensen. Foods that Heal (Avery Publishing Group Inc., Garden City Park, NY) 1993.