

LIVER FUNCTION RECOVERY(Fatty Liver)

Basic Treatment Guidelines

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Dietary Supplement Plan

1. [Hepo Protect](#)
2. [Power Mushrooms](#)
3. [Milk Thistle](#)
4. Alpha Liipoic Acid



It is estimated that nearly one in four US adults has nonalcoholic fatty liver disease, which can progress to liver fibrosis and eventually cirrhosis, according to latest research at the annual Digestive Disease week gathering. The estimate emerged from an analysis of data on 13,500 adult participants in the Third National Health and Nutrition Examination Survey (NHANES III, 1988-1994). According to the data, 23.5% of US adults have some form of nonalcoholic fatty liver disease. The researchers defined nonalcoholic liver disease in this study as abnormally high levels of liver enzymes AST, ALT, or GGT; negative hepatitis B and C serologic tests; transferrin saturation <50%; and an average daily alcohol intake <2 drinks per day for women and <3 drinks

per day for men. Past studies have suggested that most of the ALT elevations in normal blood donors are not due to hepatitis, but to something else that seemed to be associated with obesity and diabetes." The NHANES III data clearly point to nonalcoholic fatty liver disease.

Some individuals can develop fatty liver. Most people who do not abuse alcohol and have fatty liver are obese. Fatty liver is called steatosis, and fatty liver with liver inflammation is called or steatohepatitis. Steatosis and steatohepatitis can be caused by alcohol and other drugs and can also sometimes occur in patients with diabetes mellitus. Steatohepatitis is *not* caused by alcohol and is sometimes referred to as non-alcoholic steatohepatitis or "NASH." The factors that determine who will develop fatty liver are not known. Steatohepatitis can progress to cirrhosis. Treatment (diet and exercise and supplements) may stop this progression. Fatty liver is the accumulation of fat in liver cells. Simple fatty liver is not a disease, since it does not damage the liver, but is a condition that can be identified by taking a sample of liver tissue (liver biopsy) and examining it under a microscope. Another term often used to describe this condition is fatty infiltration of the liver. Fat accumulates in the liver usually in connection with heavy use of alcohol, extreme weight gain or diabetes mellitus. Fatty liver can also occur with poor diet and certain illnesses, such as tuberculosis, intestinal bypass surgery for obesity, and certain drugs such as corticosteroids. It is not certain how fatty liver occurs. A patient has fatty liver when the fat increases the weight of the liver by 5%. Possible explanations for fatty liver include the transfer of fat from other parts of the body, or an increase in the extraction of fat presented to the liver from the intestine. Other explanations are that the liver reduces the rate it breaks down and removes fat. Eating fatty food by itself does not produce a fatty liver. Patients who drink too much alcohol for many years may develop alcoholic liver damage that includes fatty liver. An inflammation of the liver associated with an increase of fat deposits may occur in middle-aged, overweight, and often diabetic patients who do not drink alcohol. This disease, which resembles alcoholic hepatitis, is called nonalcoholic steatohepatitis (NASH). It is important to remember that simple fatty liver does not require treatment, since it does not result in damage to liver cells or clinical disease. A physical examination that reveals an enlarged liver without any other symptoms suggests fatty liver. Obese patients with fatty liver will have reduction or loss of excess fat in liver cells, as well as in other cells in the body, if substantial weight loss can be achieved. Patients who drink alcohol to excess will also have a loss of fat in the liver when alcohol is discontinued. Good control of diabetes mellitus with diet, drugs, or insulin also decreases



the fat content in the liver.

In most instances, treatment of fatty liver and steatohepatitis requires control of the underlying conditions. This may include reduction of high blood triglycerides, good control of diabetes, or not drinking alcohol. In some cases, surgical reversal of intestinal bypass for obesity is required.

Since one of the liver's jobs is managing fats and cholesterol, liver function is a dominant factor in the development of fatty degeneration diseases--the appearance of fatty materials in places where they are not normally found, such as the arteries. Such deranged fat metabolism contributes to many diseases including cardiovascular disease, cancer, obesity and diabetes. High blood pressure, anemia and infertility may also arise from poor use of fats or fat-soluble vitamins caused by liver dysfunction and insufficient bile production. Many natural health practitioners believe liver detoxification and nutritional support are the cornerstones of treating fatty degeneration diseases.

Hepo Protect key ingredients:

- For regeneration and immunity building of the liver/gallbladder :
- **Andrographis Paniculata.** This is the corner stone of the Gall Bladder/Liver Cleanse Program. The value this combination brings to the long term health of the liver, and thus the over all health of your patients, cannot be overstated. *Andrographis*, *Andrographis paniculata*, used in Chinese and Ayurvedic medicine, is another herbal rising star. Recently acclaimed for its ability to protect the liver and help the liver regenerate itself, it has the added benefit of hindering the replication of viruses, by altering cell-to-cell transmissions.^{23,24} The ingredient *andrographide* is suspected of destroying the virus' communication mechanism, preventing the transmission of the virus to other cells by modifying cellular signal transmission. *Andrographis Paniculata* acts by blocking an enzyme known as reverse transcriptase, which the virus uses to translate its genetic information in order to replicate. Acclaimed for its ability to help the liver regenerate itself, it has the added benefit of hindering viral replication by altering cell-to-cell transmissions. The ingredient *andrographide* is suspected of destroying the virus' communication mechanism by modifying cellular signal transmission
- **Cats Claw**, This South American root bark is an antiinflammatory that boosts the immune system with its Oxyindole alkaloids these alkaloids and other compounds are anti oxidants that boosts immunity in general and for the liver .
- **Licorice** :The active ingredient of licorice is Glycyrrhiza has been shown to have a direct hepatoprotective effect. Glycyrrhiza flavonoids provided protection to hepatocytes exposed to carbon tetrachloride,⁶⁴ and galactosamine.⁶⁵ The researchers pointed to the anti-lipid peroxidation effect of Glycyrrhiza as the central mechanism contributing to its protective action against carbon tetrachloride-induced hepatotoxicity.^{64,66} Glycyrrhiza has also been shown to have a significant free-radical-quenching effect. : Recent studies have brought to light the ability of Glycyrrhiza to enhance the detoxification of medications and toxins
- **Dandelion.** Dandelion (*Taraxacum officinale*), a nutrient-rich herb, has a long folk history as a liver tonic. The German Commission E reports that the root and leaves stimulate bile production, thereby diminishing liver congestion.²¹

Power Mushrooms key ingredients

- Shiitake mushrooms contain proteins, fats, carbohydrates, soluble fiber, vitamins, and minerals. In addition, shiitake's key ingredient—found in the fruiting body—is a polysaccharide called lentinan. This mushroom is used for hepatitis, cancer and building the immune response. Its effect upon cholesterol may come from its fiber. Fiber is divided into two general categories—water soluble and water insoluble. Soluble fiber lowers cholesterol. What are it active copounds? The proteins contain all of the essential



amino acids, and most commonly occurring non-essential amino acids and amides. The fatty acids are largely unsaturated, and shiitake are rich in vitamins and minerals. Key therapeutic substances are glucans, a major constituent of the cell walls. Shiitake yields Lentinan. Shiitake's historical usage is centered around Cancer, high cholesterol, diseases of the liver, such as hepatitis fatty liver and cirrhosis, and general immune response support.

- **Maitake** is a very large mushroom which grows deep in the mountains of Northeastern Japan^{1,2,3}. The use of mushrooms as functional foods has been most popular in Asia, where the application of mushrooms to support health was recorded at least 2000 years ago. In particular, maitake has been used to reduce excessive dampness, according to Eastern traditions. Ingredients in edible mushrooms are known to modulate the immune system thus improving the body's response. Maitake ingredients exhibit other functional properties. As demonstrated in a recent study, mushroom polysaccharides can lower the level of serum lipids. The mechanism may involve increased bile production on one hand, and increased liver turnover of cholesterol and triglycerides, although the details of the mechanism are not completely understood. It is significant that HDL levels were maintained, because of the cardioprotective effects of this form of serum cholesterol relative to LDL.⁵
- **Reishi** is officially listed as a substance for treating cancer by the Japanese Government. It is well established that *reishi* and other similar mushrooms such as *shiitake* and *maitake*, can significantly lower serum cholesterol and thin the blood by reducing platelet stickiness, as aspirin does. High incidences of these illnesses are closely linked to the adoption of the North American dietary habits: heavy meat consumption, heavy carbohydrates and sodium consumption, lack of food fiber, change in basic food components when food is processed, frozen, and mixed with chemical additives etc. Consumption of these products provide fats and proteins in an unbalanced proportions. This assimilation damages the blood vessels and oxygenation process to a marked degree that could affect the body's metabolism. Yet, reishi can correct this imbalance and strengthen the system to prevent further deterioration. Reishi eliminates cholesterol build-up and promotes blood circulation. When there is a built-up of starch, protein or fatty acids in the blood stream, cholesterosis arise.. Cholesterosis also slows the circulatory system resulting in stiffness of the joints and shoulders, insomnia, anxiety attacks, dizziness and fatigue etc.. The function of blood is to transport oxygen and nutrients to various parts of the body. This function is being carried out by capillaries. These minute vessels is about 1% the thickness of human hair. When cholesterosis occurs, blood viscosity becomes too thick for fluid circulation. Nutrients cannot reach the extremities as easily as when under normal conditions. Immunity decreases following the decrease in nutrient supply especially in the extremities. reishi plays a role in controlling thrombosis and cholesterol in the blood streams, and facilitating circulation simultaneously. **These together discourage formation of fatty liver.**

Milk Thistle. Milk thistle has been used for hundreds of years in Europe to promote liver health and positive mental attitude. The first written references can be traced to the Roman physician Pliny the Elder (23Ð93 a.d.), who noted that milk thistle's juice was excellent for carrying off bile; Culpeper (1616-1654 a.d.) used it to remove obstructions of the liver and spleen and against jaundice.

Modern German research into this herb now concentrates on flavanoligans, a group of compounds that are collectively referred to as silymarin. It is this substance within milk thistle seeds that has been found to be highly protective of the liver, supporting its functions and preventing damage from compounds that are highly toxic. For example, severe liver damage from a poisonous mushroom may be prevented if silymarin is ingested within the forty-eight hours prior to eating the mushroom. This protective action is thought to come from the powerful antioxidant activity (ten times greater than vitamin E) that prevents certain toxins from entering liver cells, while actually stimulating regeneration of damaged cells. Pliny the Elder once claimed and it now seems confirmed through scientific research that milk thistle helps prevent and treat gallstones through its ability to increase the



solubility of the bile and lower biliary cholesterol..

Dietary Guidelines for Liver and Gall Bladder Detoxification.

The diet should include plenty of organic, unrefined, unprocessed foods, as fresh as possible and in their natural state. Fresh vegetables, fruits, whole grains and unrefined carbohydrates should make up the majority of the diet. Red meats, animal fats, sugars and refined foods should be avoided as should caffeine, other stimulants and alcohol.

Dietary Control: Eat less! Greatly reduce the intake of foods high in saturated fats such as animal meat, cream, cheese and eggs, all intoxicants, and highly processed refined foods.

Help yourself to foods which stimulate the liver out of stagnation include moderately pungent foods, spices and herbs. Watercress, onion family, mustard greens, tumeric, basil, bay leaf, cardamom, marjoram, cumin, fennel, dill, ginger, black pepper, horseradish, rosemary, various mints, lemon balm, angelica root and prickly ash bark. Other mildly pungent foods that will help the liver out of stagnancy are beets, taro root, sweet rice, amasake, strawberry, peach, cherry, chestnut, pine nut, and vegetables in the brassica family such as cabbage, turnip root, kohlrabi, cauliflower, broccoli and brussel sprouts. Raw foods such as sprouted grains, beans and seeds, fresh vegetables and fruits also stimulate the energy flow. Foods that detoxify and cool the liver are mung bean and their sprouts, celery, seaweeds, kelp is very helpful in liver stagnancy, lettuce, cucumber, watercress, tofu, millet, plum, chlorophyll rich foods, mushrooms, rhubarb root, or stem, radish and daikon radish

The liver can be restored even in severe cases following a strict diet for about a year according to healing with wholefoods by Paul Pitchford, many of my own patients have been helped.. A diet of wheat grass, wheat juice grass, spirulina and fresh vegetable juices. Up to 1 quart of carrot juice daily. Some fruit juices and small amount of brown rice. The brown rice is the only cooked food.

- 1) Fast on fruit, vegetable and wheat-grass juices, for 7-10 days monthly.
- 2) A herbal formula such as hepo protect and power mushrooms.

•No 'hot spicy', greasy, fatty, oily, fried foods.

- Drink plenty of bottled water or diluted juice, at least two litres per day.
- A minimum of one daily serving of cruciferous vegetables and at least five servings of fresh fruit should be included in the daily diet.
- Protein sources can be obtained from lentils, soy, beans, nuts, seeds and fish and organic chicken.greens, grapefruit, lotus root, millet, oranges, pears, pineapple, rice, squash, watermelon.

- Get more omega-3 fatty acids from fish or flaxseed. If fresh fish is too expensive, get canned tuna or salmon in water. If you take fish oil, make sure it is from the body of the fish, as opposed to cod liver or halibut liver oil.
- Substitute animal protein for soy protein such as tofu.
- Choose monosaturated fats, such as olive oil, canola oil, and flax oil.
- Increase your fiber intake with brown rice, quinoa, barley, whole grain bread, and cereal.
- Eat lots of vegetables and more legumes like dried beans, peas, and lentils.
- Limit simple carbohydrates like sugar, candy, sweet foods, pop, Boost/Ensure, and, perhaps surprisingly, fruit juice!
- Avoid greasy and fried foods, such as chips and fast food restaurant items.
- Use less saturated fat (hard fat like butter, lard, dairy fat, and meat fat).



Substances to Avoid

Alcohol, prescription and recreational drugs, over-the-counter pharmaceuticals, coffee, chocolate, sugar, “hot” spicy, greasy, fatty and fried foods. Avoid "hydrogenated oil

Food to avoid

Avoid all dairy products, animal foods, fried, processed foods, and sugars. Avoid all red meat.

Foods to eat

Increase cold-water fish like salmon, herring, mackerel and tuna. Increase fresh vegetables, nuts, fruits, soy products, whole grains & beans. Eat seaweed to help detoxify iron and other heavy metals from the body

Drink Green Tea

Green tea has been found to provide protection to the liver against a variety of toxic insults, including the industrial solvent 2-nitropropane (also found in cigarette smoke),³⁴ alcohol,³⁵ d-galactosamine,³⁶ and 1,4-naphthoquinone.³¹ In addition, the anti-carcinogenic effect of green tea on the liver and other organs has been well researched.^{32,34,37,38}

Recommended Exercise

Exercise	Time	Pitch	
Relaxation technique	20 minutes a day.		Stress plays a large role in how the liver functions, 20 minutes a day of relaxation techniques allow a better functioning of the Liver.
Time management			Managing your time more effectively helps take control of one of the major stressors of the Cardiovascular system. Anxiety and stress hinder the processing of cholesterol.
Physical Exercise	30 mins 5 times a week		Do not over exercise

Other Considerations

Do not drink alcohol, Address high blood pressure, and quit smoking. Move your bowels daily. Maintain correct body weight

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