

Liva-Vite

Nutritional Support for Maintaining A Healthy Liver

About the Liver

The liver is the largest organ in the body with numerous functions. It plays a major role in the coordination of energy metabolism, assuring a ready supply of many bioavailable essential nutrients. The liver is also the site of synthesis of amino acids and many proteins. When there is a deficiency of glucose, the liver can make more. The liver stores glucose as glycogen and when blood sugar drops it breaks the glycogen back down into free glucose and releases it into the bloodstream. Most of the cholesterol synthesis in the body takes place in the liver and the liver makes many hormones, growth factors, and bile for fat digestion. The liver is also essential for breaking down insulin and other hormones when they are no longer needed. In addition the liver is the most important site for degradation and excretion of many toxic substances that enter the body. There are so many critical activities of the liver, that there is no way to replace liver function artificially. Therefore, when liver function is destroyed the only chance for survival is a liver transplant. Protecting the liver and keeping it healthy is one of the most important objectives for maintaining optimal health.

Numerous substances have been shown to protect the liver from damage, many of the most important such nutrients are included in **Daily Liva-Vite**.

Methionine: Methionine is a sulfur-containing essential amino acid. Methionine is generally accepted as a liver protectant but the dosages that are safe and effective are not clearly established. It has been suggested that methionine be added to the analgesic acetaminophen. Acetaminophen overdose is the most common cause of acute liver failure in Western countries. However, how much methionine is needed to detoxify a given amount of acetaminophen is unknown and adding large amounts for people to be taking inadvertently was deemed unwise. **Daily Liva-Vite** provides a nutritionally safe dose that should be effective for detoxifying small amounts of chemicals, but would not be sufficient to protect against serious acute poisoning such as acetaminophen overdose.

Choline: Choline has recently been recognized as an essential nutrient for humans. Choline deficiency has been shown to result in fatty liver and liver damage resulting from the death of liver cells. This is because choline, as phosphatidylcholine is required for transport of fatty acids and cholesterol. Although most people probably obtain adequate amounts of choline from their diets, people with restrictive diets (vegan and especially vegans who do not eat soy products) may not obtain the approximately 500 mg per day that is needed. Furthermore, there is evidence that many people have a genetic difference that increases choline requirements. Choline has many cardiovascular and neurological functions in addition to the benefits to the liver.

Inositol: Also known as *myo*-inositol, is a common ingredient in B-complex supplements although it is not technically a vitamin since under ideal conditions the body can make enough to supply requirements. Inositol is very important for cell membrane integrity, insulin signaling, the nervous system and cell membranes. In the liver inositol is important for fat and cholesterol metabolism.

Dandelion Root: Dandelion (*Taraxacum officinale*) is a common weed with a long history of use as a food and traditional medicine. It is the richest source of vitamin A among all the greens, and is a rich source of numerous other vitamins and minerals. Dandelion contains large amounts of terpenoid and sterol bitter principles throughout the plant (which limits its popularity as a food). The German Commission E monograph for Dandelion Root lists it as useful for: “disturbances in bile flow, stimulation of diuresis, loss of appetite, and dyspepsia”.

Milk Thistle: Milk thistle (*Silybum marianum*) is probably the best characterized herb for maintaining liver health with numerous human studies involving at least 2,400 subjects. Milk thistle has been used for over 2,000 years for the treatment of liver and gallbladder disorders including hepatitis, cirrhosis, jaundice and to protect against liver poisons including those from snakebite, mushroom poisoning, and alcohol. One study of 170 patients with cirrhosis of the liver from various causes gave 140 mg of silymarin 3 times per day for an average of 41 months. At the end of the study, 58% of the placebo group had died, but only 39% of those taking the silymarin. It was noted that the silymarin (milk thistle) was much more effective in patients with less advanced cirrhosis. Other studies have yielded mixed results with some showing benefits and some not, but it appears that milk thistle was most effective for earlier stage cirrhosis caused by alcoholism as opposed to other causes. Milk thistle and its active ingredient, silymarin, is used both as a supplement and as a drug. When used as a drug for amanita mushroom poisoning it is used intravenously. The milk thistle in **Daily Liva-Vite** provides a nutritional source of milk thistle that will support liver health, but not a pharmacological dose that can be used to treat liver injury.

Beet Root: Beet root (*Beta vulgaris*) is a rich source of many nutrients, but of special interest for liver health is betaine. Betaine is a methyl donor and helps the body make s-adenosylmethionine. It has been shown to protect against both alcoholic and non-alcoholic fatty liver disease and to actually reduce fatty liver and increased liver enzymes (an indicator of liver injury).

Black Radish: Black radish (*Raphanus sativus* var *niger*) is a pungent type radish used in Mediterranean and Asian foods. Black radish has traditionally been used for digestive and liver disorders. Black radish has been shown in animals to protect against poisoning from carbon tetrachloride and acetaminophen. The traditional uses of black radish have yet to be confirmed in human clinical trials, but there is biochemical data to support its efficacy.

Uva Ursi: The salubrious effects of uva ursi (*Arctostaphylos uva-ursi*) are generally related to the urinary tract. The German Commission E monograph specifies it as “useful for inflammatory disorders of the efferent urinary tract” and states that it is an effective antimicrobial agent against numerous bacteria and the yeast, “*Candida albicans*”. Although Uva Ursi is mostly used for maintaining urinary health, proper excretion is essential for the liver to work effectively. The liver is involved in detoxifying chemicals so they can be eliminated from the body.

Goldenseal: Goldenseal (*Hydrastis canadensis*) rhizome and roots are among the most revered of medicinal herbs. The Physicians Desk Reference for Herbal Medicines says that goldenseal is “useful for cirrhosis of the liver”, although no documentation is provided to support that use. Goldenseal has also been shown to increase the numbers of LDL-receptors in the liver which has the effect of lowering LDL cholesterol. Goldenseal is also known to inhibit some cytochrome P450 en-

zymes which are involved in the metabolism of many drugs and chemicals. This inhibition could prolong the effects of some drugs since they cannot be broken down normally. Therefore, persons taking drugs should use this and other supplements containing goldenseal with caution.

Taurine: Taurine (2-aminoethanesulfonic acid) is a major component of bile, its best known function. It is sometimes considered an amino acid, although that is not strictly correct. Although the body can make taurine, two groups of people are at risk for having below normal taurine levels - the elderly and vegans. In the liver, taurine has been shown to maintain a good balance of antioxidants to oxidative compounds, thereby helping to protect the liver from damage. Several studies have shown that taurine can protect against alcohol and carbon tetrachloride induced liver damage.

Why Use Liva-Vite?

The liver is under constant assault from toxins from both inside the body and from the outside. One of the major functions of the liver is to protect the rest of the body from these toxins. However, many of the protective actions of the liver depletes it of important nutrients it needs to do its job. The liver and subsequently the rest of the body is at risk when the liver is depleted of the substances it needs to do its job. Liva-Vite provides many of the most important substances the liver needs to stay healthy and to keep the rest of the body healthy.

Does Liva-Vite Take the Place of Drug Treatments for Liver Disease?

No. Liva-Vite gives the liver the tools it needs to work, but it is not a drug used to treat any disease. You may have read that some of the ingredients in Liva-Vite can be used to treat toxicities such as poisoning from the amanita mushroom, however, the nutrients in Liva-Vite are not present in high enough concentrations to be used for that purpose and they would probably need to be given intravenously. Liva-Vite provides valuable nutritional support, but does not replace medical treatment and should not be used to treat any disease.

Who Should Use Liva-Vite

People who are at risk for depleting the nutrients needed by the liver should use Liva-Vite for maintaining the nutritional status of the liver. This would include:

1. People who drink alcohol
2. People who are exposed to harmful chemicals
3. The elderly
4. People on restrictive diets (vegans have been demonstrated to have low levels of taurine)
5. Anyone with compromised liver nutritional status

How Should Liva-Vite be Taken?

Liva-Vite is best taken with meals. Normally 2 tablets per day is ideal, one in the morning and one in the evening. In some cases a health care professional may recognize that someone needs extra nutritional support for the liver and recommend higher doses.

Precautions

Liva-Vite contains ingredients that can affect how rapidly the liver breaks down many drugs. Therefore, people who are taking medications need to make their doctor aware of this possible adverse interaction with their medications.

Liva-Vite also contains herbal products to which some people may have allergies. Anyone with serious allergy to flower pollens should exercise caution when using this product for the first time.

Other Nutritional Products That May Compliment Liva-Vite

Liva-Vite contains most of the nutrients that are most important for optimal liver function but the following Daily products offer additional liver support: Alpha Lipoic Acid, Ener-Cell, Spectra Scrob vitamin C, Vitamin E, Activated B₁₂.

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