What Is Critical Liver Support?
Critical Liver Support improves liver function and provides therapeutic liver protection. Critical Liver Support consists of powdered herbs and amino acids delivered in vegetable capsules.

How It Works
The liver is the largest, and one of the most vital organs in the body. It plays a role in many important functions; including making vital substances such as cholesterol, blood proteins, clotting proteins and lipoproteins. It is also involved in blood filtration, bile production, production and break down of hormones, regulation of blood sugar, and detoxification of endotoxins (internally produced) and exotoxins (environmental). These are just a small list of functions that the liver plays a role in.

Optimal liver function is vital in order to deal with the abundance of jobs it is required to perform. If the liver is not in good health, it can become sluggish and result in congestion or poor functioning.

To ensure optimal liver function it is important to work on the following 3 things:
1. Promoting liver rejuvenation.
2. Protecting the liver against damage with powerful anti-oxidants.
3. Promoting proper liver function.

Critical Liver Support does all 3 of these important tasks.

Directions For Use
Take 1 capsule three times per day. Take with meals providing protein. Use for a minimum of 3 weeks to see beneficial effects. Consult a health care practitioner for use beyond 6 months.

What To Expect
Those who are in general good health, and are using the product as a preventative measure, may notice an increase in energy and a lowering or stabilizing of cholesterol levels.

Ingredients
Critical Liver Support contains ingredients to rejuvenate, support, and protect the liver.

Hepatoprotective (Herbs that protect the cells of the liver)
Artichoke Leaf – Provides hepatoprotective action. It has multiple therapeutic properties with practically no side effects and is therefore recommended in disorders of the liver (Kulza et al 2012).
Garlic – “protects against isoniazid+rifampicin-induced liver injury in experimental animal models. Several mechanisms are likely to account for this protection” (Rana et al, 2011). In an animal experimental research the results suggested that “Allium homogenates (leaves or bulbs) possess antioxidant properties and provide protection against ethanol-induced liver injury” (Capasso, 2013).
Milk Thistle Seed – Silibinin is the most active component of a complex of flavonoids called silymarin which is found in milk thistle. It blocks the penetration of various toxins into the hepatocytes stopping cell death. Silibinin strengthens and stabilizes the cell membranes, inhibits the synthesis of prostaglandins associated with the lipid peroxidation and promotes regeneration of liver through the stimulation of protein synthesis and effect on the production of new hepatocytes. (Kostek et al. 2012).
Turmeric Root – “showed significant hepatoprotective effects on tacrine-induced cytotoxicity in human liver-derived Hep G2 cells. (Song et al, 2001)
Vitamin C – Animal research showed the hepatoprotective properties of Vitamin C. That it “effectively attenuates Con A-mediated immunotoxicity in liver tissue, through an underlying mechanism which relates to dampening of the intrahepatic NF-κB signal pathway, thereby reducing cytotoxicity within hepatocytes” (Liang, T. et al., 2014).

Cholagogues (Herbs that stimulate bile flow in the liver; an important liver function)
Artichoke Leaf – “In vitro studies have demonstrated globe artichoke leaf extract may increase bile secretion in perfused rat liver and liver cell cultures. It has been suggested that reduction of intrahepatic cholesterol concentration is responsible for globe artichoke extract's ability to treat dyspepsia.” (Natural Standard Database, 2014).
Dandelion – “Dandelion is suggested as a choleretic (to increase in bile production and flow to the gallbladder) and a cholagogue (to exert a direct effect on the gallbladder, causing contraction and release of stored bile)”. (Natural Standard Database, 2014).
Turmeric – “In animal research, curcumin had antilithogenic effects on cholesterol gallstones” (Natural Standard Database)
Vitamin C – is “involved in a variety of metabolic processes including... catabolism of cholesterol to bile acids” (Natural Medicines Comprehensive Database, 2015).
Critical Liver Support

Each capsule contains

Milk Thistle Seed (Silybum marianum) – 50% Silymarin* 200mg
DL-Alpha-Lipoic Acid 200mg
Garlic Bulb 125mg
(Allium sativum) 4:1 Extract (500mg)
N-Acetyl-L-Cysteine 100mg
Vitamin C (Ascorbic acid) 50mg
Artichoke Leaf (Cynara scolymus) 4:1 Extract (100mg)
Dandelion Root 25mg
(Taraxacum officinale) 4:1 Extract (100mg)
Turmeric Root, Rhizome 25mg
(Curcuma longa) 4:1 Extract (100mg)
Selenium (selenomethionine) 100mcg

*50% Silymarin via HPLC = 80% Silymarin via UV

Non-medical Ingredients: Vegetable capsules (HPmc, water), vegetable cellulose

Contains no nuts, peanuts, sesame seeds, mustard seeds, wheat, gluten, yeast, corn, egg, dairy, soy, crustaceans, shellfish, fish, artificial colour or preservatives, binders or fillers.

Advanced Naturals does not use genetically modified ingredients. All ingredients are NON-GMO / GMO-FREE.

Warning: Discontinue use if you develop symptoms of liver trouble (abdominal pain, dark urine, jaundice). Consult a healthcare practitioner prior to use if you have diabetes, gallstones, stomach ulcers or excess stomach acid, have a history of non-melanoma skin cancer, are taking blood thinners, antplatelet medication or protease inhibitors, if you have cystinuria, or are taking nitroglycerin, or if taking antibiotics. Do not use if you have a bile duct obstruction and/or if you have liver or gall bladder disorder, and/or bowel obstruction. Do not use if you are allergic to plants of the Asteraceae/ Compositae/Daisy family. Hypersensitivity, such as allergy, has been known to occur; in which case, discontinue use. Consult a healthcare practitioner if symptoms persist or worsen. Do not use if you are pregnant or breastfeeding. Keep out of reach of children. Do not exceed recommended dose.

No Refrigeration Required. Store in a cool, dry place.

Antioxidants

Alpha Lipoic Acid – “In humans, Alpha Lipoic Acid (LA) is synthesized in the liver and other tissues with high metabolic activity...studies have suggested that LA can improve liver antioxidant defense in rats. LA has reactive oxygen species scavenging capacity, the capacity to regenerate endogenous antioxidants, such as GSH, and vitamins E and C, and a metal-chelating capacity. Unlike other antioxidants, LA is both water and lipid soluble and, therefore, can cross biological membranes easily and has its antioxidant action both in the cytosol and in the plasma membrane” (Stankovic et al., 2014).

Artichoke Leaf – Has strong antioxidant properties which have a protective effect on liver cells. (Horoszkiewicz M, 2012).

Milk Thistle Seed – Includes the extract called Silymarian (a group of flavonoid compounds). Prevents damage to the liver by acting as an antioxidant, particularly it protects the liver from oxidative intracellular free radicals by increasing the activity of enzyme superoxide dismutase (Kostek et al. 2012).

N-acetyl cysteine – “N-acetyl cysteine is a precursor of glutathione, which is a potent antioxidant. Glutathione can not cross the cell membrane, but N-acetyl cysteine easily crosses the cell membrane where it is converted to cysteine and, subsequently, glutathione.... The antioxidant effects of N-acetyl cysteine may explain its apparent ability to prevent adverse effects caused by toxic chemicals, drug reactions” (Natural Medicines Comprehensive Database, 2015).

Selenium – “Preliminary population and clinical research in China suggest that taking selenium for 2-5 years can reduce the incidence of liver cancer... Clinical evidence shows that taking a combination of selenium 200 mcg, zinc 12 mg, and vitamin E 600 mg daily reduces the duration of hospitalization by up to 6 days compared to placebo in patients with alcohol-induced hepatitis. Also, mortality rates seem to improve with this combination...Selenium also might protect patients infected with hepatitis B or C from developing liver cancer” (Natural Medicines Comprehensive Database, 2015).

Turmeric Root – Curcuma longa furnished three DPPH free radical scavenging diarylheptanoids, curcumin (1), demethoxycurcumin (2), and bisdemethoxycurcumin (3) (Song et al, 2001).

Vitamin C – Vitamin C is probably best known for its effects as an antioxidant and its role in maintaining proper immune function. (Natural Medicines Comprehensive Database, 2015).

References

Capasso, Anna (2013). Review: Antioxidant Action and Therapeutic Efficacy of Allium sativum L. Molecules. 18, 690-700

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