

TECHNICAL DATA SHEET



ORGAN SUPPORT LIVER C™

Promotes liver health. Supports the normal liver cleansing function.

Liver C is a complete hepatic support formula combining proven botanicals from traditional western, Ayurvedic, and Chinese formularies. We include three liver supporting mushrooms (Turkey Tail, Cordyceps and Reishi), key amino acid components, along with vitamins and minerals that promote liver health and function. Additionally, **Liver C** now contains Siliphos (silybin-phosphatidylcholine complex) and Meriva® (Curcumin), which uses phytosome technology—a state of the art laboratory procedure that increases hydrolytical stability (protects the herb from water) and significantly improves the oral bioavailability and absorption. Pharmacokinetic comparison studies shows that Meriva has up to a 20-fold improvement in bioavailability versus the standard 95% turmeric/curcumin extracts. Siliphos is also supported by data to show a 10-fold higher bioavailability over silymarin extract alone. These liver-specific ingredients assist the body to stimulate the regeneration of both hepatocytes and Kupffer's cells, allowing the liver to better filter out environmental and ingested substances from the bloodstream. The liver is responsible for cleansing the two quarts of blood that pass through it every 60 seconds. When the liver is not functioning optimally, this filtration system is hindered. Remarkably, the liver can repair itself and can additionally be supported by specific nutrients, cleansing programs, and paying close attention to what food and drugs one consumes.



Supplement Facts

Serving size: 3 capsules
Servings per container: 30

Amount per serving		%DV
Magnesium (as Magnesium Citrate)	25 mg	6%

Liver C Proprietary Blend: 1643 mg *

Alpha-Lipoic Acid, Artichoke extract (leaf) (Cynara spp), Dandelion extract (root) (Taraxacum spp), Siliphos® Silybin-phosphatidylcholine complex, Turkey Tail mushroom (Coriolus versicolor), Meriva® Turmeric extract (root), Caterpillar mushroom (Cordyceps sinensis), Phyllanthus amarus extract (leaf), Reishi mushroom (Ganoderma lucidum), Gardenia extract (fruit) (Gardenia spp), L-Glutathione (reduced), Beet extract (leaf) (Beta vulgaris), Celandine extract (root) (Chelidonium spp), Schisandra extract (fruit) (Schisandra spp), Black radish extract (root) (Raphanus spp)

* Daily Value not established.

Other Ingredients: Vegetarian capsules (hypromellose, purified water), rice flour, L-Leucine, silicon dioxide

Meriva® is a trademark of Indena S.p.A.

Siliphos® is a trademark of Indena S.p.A.



INGREDIENTS:

Siliphos® (Silymarin/Milk Thistle)

Milk thistle seed is the most commonly used botanical for liver support. Silymarin, the active constituent of the milk thistle seed, consists of four flavonolignans called silybinin (silybin), isosilybinin, silichristin (silychristin), and siliidianin. Silybinin makes up about 70% of silymarin (1). When ingested, silymarin undergoes enterohepatic recirculation and has higher concentrations in liver cells. Silybin is an antioxidant, a free radical scavenger, and an inhibitor of lipid peroxidation (2). Several activities seem to contribute to the effect of silymarin. Silymarin may affect the alteration of the outer hepatocyte cell membrane that protects the cell. It also supports ribosomal protein synthesis, which is a factor in liver regeneration and the formation of new hepatocytes (3). Liver C contains Siliphos which has demonstrated superior bioavailability, and when calculated for cumulative biliary excretion the result was around 10-times higher than that of silymarin extract (4).

Alpha-Lipoic Acid

Alpha-lipoic acid (ALA) was identified as a vitamin when it was isolated 50 years ago, but was reclassified as a nutrient upon finding that it is synthesized in humans and animals (5). ALA is both water and fat-soluble and can regenerate endogenous antioxidants, such as Vitamin E, Vitamin C, and glutathione, which protect against oxidative effects (6). ALA is rapidly depleted when the liver is under stress. It is highly effective in raising glutathione levels, which is believed to further support liver function. Unlike most antioxidants that work in either the fatty parts of the body (including the outer layers of cells) or the watery parts (including the blood), ALA works in both. This ability allows ALA to protect cells throughout the body. Children given ALA normalized organ function and lessened incidences of oxidative effects (7).

Replaces all previous versions: 8.19.22

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

N-Acetyl Cysteine

N-acetyl cysteine is the N-acetyl derivative of the amino acid L-cysteine and is a precursor of glutathione, which is a potent antioxidant. Glutathione cannot cross the cell membrane, but N-acetyl cysteine easily crosses the cell membrane where it is converted to cysteine and, subsequently, glutathione. N-acetyl cysteine is a very efficient way to replenish glutathione and reduce the effects from reactive oxygen species (ROS)(8).

Turmeric (Meriva®)

Turmeric's major active constituents are curcuminoids including curcumin (diferuloylmethane), a yellow pigment. Its metabolic activity appears to work with chemicals released by the body (10). The body's absorption of curcumin is rather weak when ingested orally (11). Our formula contains Meriva which uses phytosome technology to combine curcumin with phosphatidylcholine. Pharmacokinetic comparison studies show Meriva to have up to a 20-fold improvement in bioavailability, versus a standard 95% turmeric extract (12).

Artichoke

Artichoke uses the leaf, stem, and root as the applicable parts. The primary constituents include up to 2% phenolic acids, primarily chlorogenic acid, cynarin, and caffeic acid. Artichoke also contains up to 4% sesquiterpene lactones, and 1% flavonoids including scolymoside, cynaroside, and luteolin (13). Artichoke is a strong antioxidant and promotes healthy bile metabolism, more efficient blood flow and cleansing, and protects and improves hepatic cell function in the liver (14).

Beet Leaf

Beet leaf supports healthy liver function. It may keep fat from depositing in the liver (15). Beet leaf has a high concentration of betaine that is a methyl group donor in the liver's transmethylation process.

Black Radish

Black radish is a root vegetable closely related to the turnip and horseradish family. Black radish root is rich in B vitamins, Vitamin C, sulfur, and fiber. Black radish root aids in strengthening hepatic cell membranes and plays a vital role in the body's normal cleansing functions.

Chelidonium

The applicable parts of chelidonium are the dried above ground parts, the rhizome and root. It supports liver function. Extract of greater celandine supports normal bile flow (16).

Dandelion Root

Dandelion root follows the bitter principle, which is the principal constituent responsible for its effects on the liver, that increases bile production in the gall bladder and bile flow from the liver.

All three of our mushrooms are the best quality available and certified to be organically grown:

Turkey Tail Mushroom

Trametes versicolor mushroom uses the fruiting body and mycelium as the applicable parts. *T. versicolor* contains several polysaccharides, including polysaccharide peptide (PSP) and polysaccharide krestin (PSK)(17). *T. versicolor* provides a more effective cleansing process, promoting better liver health and function.

Cordyceps Sinensis Mushroom

Cordyceps sinensis mushroom increases glutathione levels and may protect the liver from detrimental compounds.

Reishi Mushroom

Reishi contains polysaccharides and terpenes, which promote healthy enzyme activity in liver cells. Reishi mushrooms have a long and storied history in folk medicine, but researchers are just beginning to isolate and identify substances in reishi mushrooms that have many supportive functions in the body.

Gardenia Fruit

Gardenia fruit is a well-known and respected Chinese herb known for its cleansing properties, promotion of normal bile secretion, and its role as a liver tonic.

Phyllanthus Amarus

Phyllanthus amarus is another well-known and respected Chinese herb known for its ability to support healthy liver function. Phyllanthus contains bioflavonoids that have metabolic actions in the liver.

Schisandra Berry

Schisandra berry is the third well-respected Chinese herb found in Liver C formula. Schisandra berry is recognized as an excellent liver tonic and, in Chinese herbalism, is thought to have rejuvenating effects on the body.

Patients: Consult with your healthcare professional for the proper use of this formula.

For more information about this and other Condition Specific Formulas® please visit our website at:

mountainpeaknutritionals.com
email us: support@mtnpeaknutrition.com



REFERENCES:

1. Drug Metab Dispos 2000;28:1270-73
2. Am J Gastroenterol 1988;93:139-43
3. J Hepatol 1989;Jul;9(1):105-13
4. Eur J Drug Metabol Pharmacokin:18,289 (1993)
5. Free Rad Biol Med 1995;19:227-50
6. Gen Pharmacol 1997;29:315-31
7. Free Rad Biol Med 1995;19:227-50
8. Altern MED REV 1998;3:114-27
9. N Engl J Med 2000;343:180-84
10. Food Chem Toxicol 2002;80:1091-97
11. Mol Pharmaceutics:2007;4(6),807-18
12. Chemother Pharmacol 2007;60,171-77
13. Phytomedicine 1997;4:369-78
14. Toxicol Appl Pharmacol 1997;144:279-86
15. PDR for Herbal Medicines 1998; Gruenwald J, Brender T, Jaenicke C Medical Economics Co, Inc
16. Schulz V, Hansel R, Tyler VE, Rational Therapy: A Physicians Guide to Herbal Med. Terry C Telger
17. Gen Pharmacol 1998;30:1-4

