



GENESTRA
BRANDS®



Liv Detox Enhanced

Unique herbal formula to support liver function and help relieve digestive disturbances

Traditional use in Herbal Medicine includes:

- Milk thistle as a hepatoprotectant/liver protectant
- Common Barberry and Fringetree as tonics for the liver and kidney
- Globe Artichoke, Dandelion and Common Barberry to help increase bile flow as cholagogues/choleretics
- Dandelion, Common Barberry, Corn, Fringetree and Three-leaf Caper as diuretics
- Common Barberry, Cranberry, Corn and Three-leaf Caper to help prevent (recurrent) urinary tract infections (UTIs)

Liv Detox Enhanced contains a combination of herbal extracts to support liver function and help relieve digestive disturbances and dyspepsia, while supporting detoxification and antioxidant defences. Medicinal plants and their derivatives have an extensive history and are used in the practice of Herbal Medicine worldwide. Our Liv Detox Enhanced formulation contains 13 different medicinal ingredients including milk thistle, barberry, fringetree, dandelion, and globe artichoke. Traditional uses of these herbs are wide and varied, ranging from liver support to the prevention of recurrent urinary tract infections. The herbal extracts contained in Liv Detox Enhanced have been formulated to support the body's natural detoxification systems with emphasis placed on supporting and strengthening the functions of both the liver and kidneys.

EACH CAPSULE CONTAINS

Chlorella (<i>Chlorella vulgaris</i>) Broken Cell	150 mg
Milk Thistle (<i>Silybum marianum</i>) Std. Seed Extract (80% silymarin)	75 mg
Globe Artichoke (<i>Cynara scolymus</i>) Leaf Extract (4:1)	65.6 mg
262.4 mg Dried Equivalent	
Sodium Alginate	55.5 mg
Dandelion (<i>Taraxacum officinale</i>) Root Extract (4:1)	37.5 mg
150 mg Dried Equivalent	
Common Barberry (<i>Berberis vulgaris</i>) Root Extract (4:1)	37.5 mg
150 mg Dried Equivalent	
Bupleurum (<i>Bupleurum chinense</i>) Root Extract (4:1)	22.5 mg
90 mg Dried Equivalent	
Cranberry (<i>Vaccinium macrocarpon</i>) Fruit Extract (36:1)	28.1 mg
1011.6 mg Dried Equivalent	
Corn (<i>Zea mays</i>) Style and Stigma Extract (10:1)	14.1 mg
141 mg Dried Equivalent	
Fringetree (<i>Chionanthus virginicus</i>) Bark Extract (4:1)	11.3 mg
45.2 mg Dried Equivalent	
Humic Acids	7.5 mg
Three-leaf Caper (<i>Crateva magna</i>) Bark Extract (12:1)	6.56 mg
78.72 mg Dried Equivalent	
Rosemary (<i>Rosmarinus officinalis</i>) Leaf Extract (7.5:1)	3.75 mg
28.12 mg Dried Equivalent	

Non-Medicinal Ingredients: Hypromellose, ascorbyl palmitate, silica, DL-malic acid, maltodextrin

Recommended Dose

Adults: Take 2 capsules 2 times daily, a few hours before or after taking other medications or natural health products, or as recommended by your healthcare practitioner. To ensure an increase of the amount of urine, adequate fluid intake is required during treatment. Use for at least 3 weeks to see beneficial effects. Consult your healthcare practitioner for prolonged use.

Product Size

120 Vegetarian Capsules

Product Code

07683-120C

NPN 80107257



Non
GMO



Gluten
Free



Vegan

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Liv Detox Enhanced

Scientific Rationale:

Detoxification is the process of neutralizing, transforming or clearing and eliminating waste and toxins out of the body. Internally, the body produces toxins through its normal everyday functions; this includes waste products produced through biochemical, cellular and bodily activities. For example, during Phase 1 of detoxification in the liver, toxins are oxidized in order to break them down into less harmful metabolites. This is necessary but creates free radicals which can cause oxidative stress and damage if not removed from our system. Apart from the internal or endogenous sources mentioned previously, we also encounter numerous external or exogenous sources of toxins, such as pollution, alcohol, drugs, pesticides and many food additives. The body utilizes numerous systems to assist in the removal of toxins including excretion through the skin, gastrointestinal, urinary, respiratory and lymphatic systems. The herbal extracts contained in Liv Detox Enhanced have been formulated to support the body's natural detoxification systems with emphasis placed on supporting and strengthening the functions of both the liver and kidneys.

The liver is an essential organ of the body performing more than 500 identified vital functions. Some of the more well-known functions of the liver include regulating blood sugar levels, producing bile, storing vitamins and minerals, and the removal of waste products and foreign substances from the bloodstream. The liver converts fat-soluble toxins into water-soluble compounds that can then be eliminated from the body via the kidneys or bowels. The importance of this essential organ is highlighted when we look at the disruption in metabolic function that can arise with hepatic injury.¹ Being the primary organ of detoxification for both exogenous and endogenous chemicals, the liver is itself affected by the toxicity and overall load of the compounds to which it is exposed. Taking preventative measures to support our liver and kidneys provides great benefit to our overall wellbeing. The herbal formula in Liv Detox Enhanced is intended to promote proper elimination of wastes and toxins.

Medicinal plants and their derivatives have an extensive history and are used in the practice of Herbal Medicine worldwide. Our Liv Detox Enhanced formulation contains 13 different medicinal ingredients which include milk thistle, barberry, fringetree, dandelion, and globe artichoke. Traditional uses of these extracts are wide and varied and range from liver support to the prevention of recurrent urinary tract infections.

Milk thistle (*Silybum marianum*) seed extract contains the flavonoid silymarin, the primary active constituent that helps to support liver health and exerts a hepatoprotectant or liver protectant function. Research has confirmed the efficacy and safety of milk thistle extract for use as a hepatoprotectant since no health hazards or side effects are known in conjunction with the proper administration of designed therapeutic dosages.²⁻³ Silymarin is thought to maintain liver cell health through a variety of mechanisms including preventing entry of various toxins (e.g. alcohol, carbon tetrachloride and heavy metals), inhibiting free radical formation, enhancing formation of the antioxidant enzyme glutathione in liver cells and supporting hepatocyte protein synthesis.²⁻⁴

Common barberry (*Berberis vulgaris*) has been used in Ayurvedic, Herbal and Chinese Medicine for over 3000 years.⁵ Traditional uses include being used as a tonic for the liver and kidney, increasing bile flow, treating digestive disturbances

and in prevention of recurrent urinary tract infections.^{5,6} Barberry contains a large number of phytochemical materials including ascorbic acid, vitamin K, several triterpenoids, more than 10 phenolic compounds and over 30 alkaloids, the most important of which is berberine.⁵

Numerous studies have examined the hepatoprotective functions of berberine including carbon tetrachloride-induced cytotoxicity in the liver and an antioxidant effect on liver cell oxidation.⁵ Research has also indicated berberine is capable of inhibiting bacterial adherence to mucosal or epithelial surfaces. The inhibition of this initial step in the infective process of urinary tract infections may assist in the prevention of further recurrence of UTIs.⁷

Fringetree (*Chionanthus virginicus*), a native shrub to southeastern parts of North America, is mainly used to treat ailments of the liver. It has been used in Herbal Medicine due to its hepatic, cholagogue, and tonic effects. In Modern Western Herbal Medicine, both the dried root bark and stem bark of fringetree are used interchangeably. The bark of fringetree is good for acute dyspepsia, regarded as an excellent bitter tonic, stimulates gastric secretion and has a beneficial effect on liver health.⁸

Globe Artichoke (*Cynara scolymus*) leaf extract has been shown in clinical investigations to have carminative, spasmolytic and choleric properties.⁸ These qualities and the fact that artichoke leaf extract is well tolerated makes it suitable for use in increasing bile flow. A double-blind, randomized, placebo-controlled clinical study showed that artichoke leaf extract significantly ($p < 0.01$) increased the amount of bile secretion into the duodenum of healthy volunteers as compared with placebo recipients.⁹

The **Dandelion Root** (*Taraxacum officinale*) extract contained in Liv Detox Enhanced is a concentrated, standardized extract (4:1). Dandelion is found throughout mild climates of the northern hemisphere and has been included in Liv Detox Enhanced due to its well-established use in Herbal Medicine. Traditional uses of dandelion include stimulating appetite, as a diuretic, increasing bile flow, and as a laxative.^{10,11}

Many of the additional herbs and ingredients included in the Liv Detox Enhanced formulation have been added to support cellular antioxidant defences such as chlorella, barberry, cranberry, and rosemary. The importance of antioxidants in the detoxification process is not to be dismissed. Liver detoxification occurs in two main phases. Phase 1, the oxidation phase of the process, often results in highly reactive metabolites or free radicals which if not efficiently moved through the second phase of detoxification, can damage your liver cells. This is where antioxidants come into play in an important liver protective role. Phase 2 of liver detoxification involves conjugation and utilizes numerous pathways to move water-soluble metabolites, produced in Phase 1, out of your system via bile, urine and stool.

The other ingredients included in Liv Detox Enhanced include corn and three-leaf caper which have been traditionally used in Herbal Medicine as diuretics and in prevention of recurrent UTIs. Sodium alginate, bupleurum, and humic acids are also included.

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