



Functions of Milk Thistle Extract

Europeans have been using Milk Thistle as health supplement for over 2000 years. In 1949, clinical experiment done in Germany has proved that an optimum amount of Milk Thistle can help improve hepatitis. The Germans then try extracting Milk Thistle essence Silymarin from the seed of Milk Thistle in 1968. With over 30 years of experiment, it is observed that Silymarin can detoxify, strengthen and protect the liver.^[1,2]

Researches in Germany have proved that Milk Thistle plays a significant role in protecting the liver as it can help the liver resist invasion of toxin and eliminate toxin, while at the same time effectively protect and stimulate the regeneration of liver cells.^[2]

Silymarin can effectively improve the function of liver, while its effects can be classified into the following 4 kinds:

1. Antioxidant effect

Silymarin is an effective kind of antioxidant called Isoflavone, which can help suppress 5-lipoxygenase, an enzyme which speeds up oxidation. Silymarin can thus increase the concentration of antioxidant in liver cells, and stabilize cell membranes (especially liver cell), so as to achieve antioxidant effect.^[3-5]

2. Detoxification effect

Mushroom picking workers eat milk thistles to prevent liver failure caused by mis-intake of poisonous mushrooms since long in Germany. Researches today point that Silymarin is the main component of detoxification exist in Milk Thistle, which can have detoxifying effect, prevent invasion of toxin and discharge toxin. Silymarin can also improve the liver's function of detoxification and stand against toxic elements.^[2,5]

3. Help repair and regenerate liver cells

Liver cell is one of the few organ cells that has regenerating ability, while Silymarin can increase the protein synthesis of nucleotide exist in normal liver cells, but not enhancing the growth of bad liver cells. Silymarin can also repair liver cells destroyed by alcohol which makes it especially important for usual drinkers.^[5,6]

4. Recover stamina from constant tiredness

In nowadays society, many work in late hours or overtime shifts. Most workers lack sleep and are constantly tired. Recent research shows that Silymarin can significantly decrease liver-related symptoms such as fatigue, nausea along with muscle and joint pain. In a 48 week study, patients consuming Silymarin are found to have a better general health.^[15,16]

The ingredients of Milk Thistle Extract Complex Formula may provide the following remarkable functions:

- Protect and repair liver cells, promote regeneration of liver cells^[11]
- Powerful antioxidant function to protect cell membranes against free radicals damage and regeneration of new cells^[5,13]
- Improve the function of liver^[2]

- Relieve acute and chronic hepatitis^[6]
- Relieve damage to the liver caused by excessive alcohol^[3]
- Increase the excretion of bile^[9]
- Better appetite, help digestion^[10]
- Improve large intestine inflammation^[12]
- Help recover from fatigue and nausea caused by tiredness^[15]
- Relieve muscle and joint pain^[16]
- Improves general health^[15,16]

Milk Thistle Extract Complex Formula may suit for:

- People who concerned about liver health^[5]
- Usual drinkers^[5,7]
- Smokers^[2,5]
- People with obesity^[14]
- Those who can easily contact with poisonous substance (e.g. chemical factories, manufacturing or beauty salon workers, and residents living in polluted area)^[5,8]
- People who work in late hours or overtime shifts^[15,16]
- People who lack sleep and constantly feel tired^[15,16]

Milk Thistle Extract (Complex formula) is made of a combination of well-researched natural herbs such as Milk Thistle Extract, Dandelion, Green Tea and Turmeric Root. It is manufactured by well-known U.S.A. GMP licensed manufacturer with quality guarantee.

Recommended daily dose:

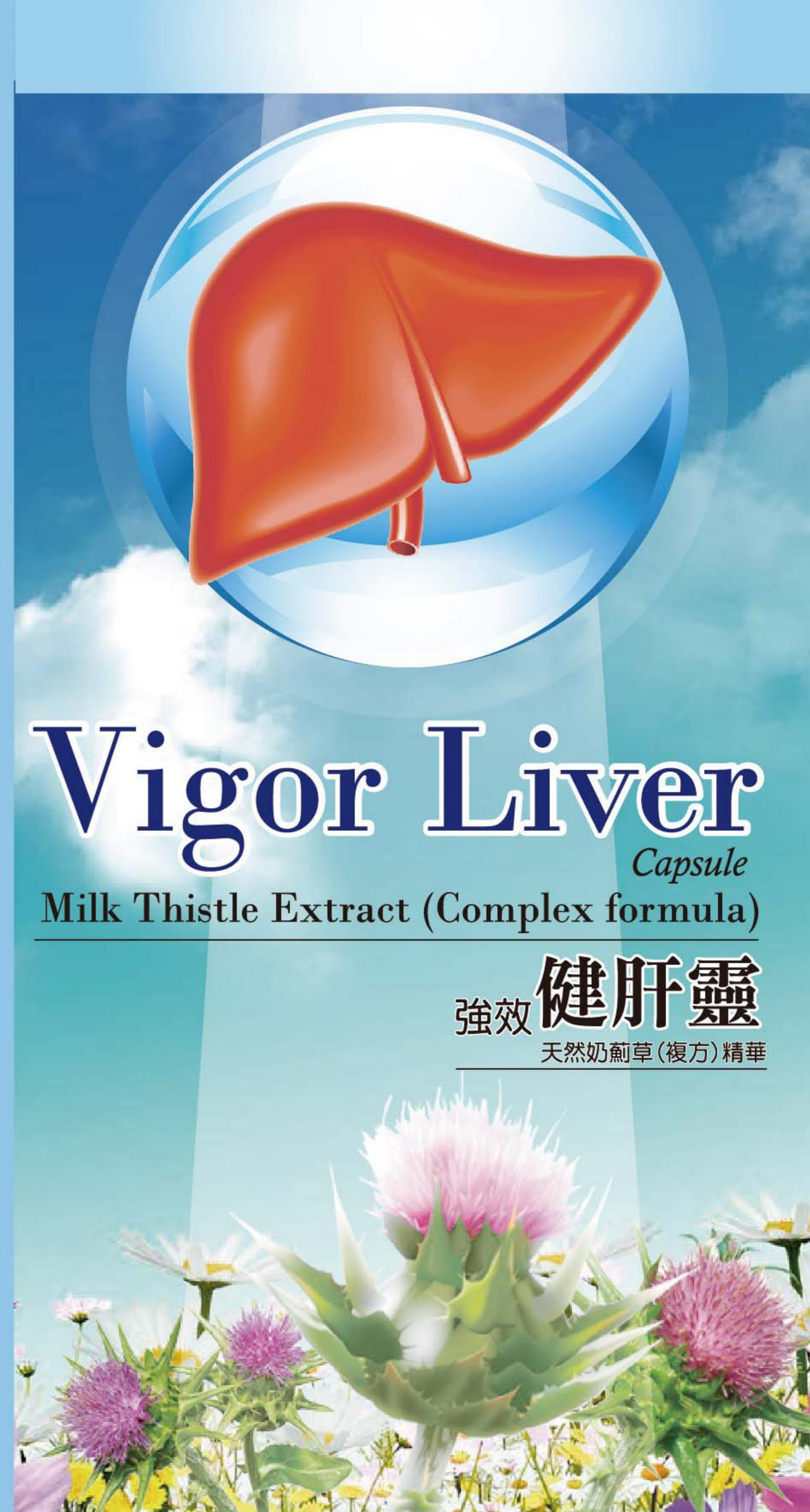
Adults take 1-2 capsules daily or as recommended by physicians.

References:

1. Gazak R, Walterová D, Kren V. Silybin and Silymarin – New and Emerging Applications in Medicine. *Curr Med Chem.* 2007;14(3):315-38.
2. Loguercio C, Festi D. Silybin and the liver: From basic research to clinical practice. *World J Gastroenterol* 2011;17(18): 2288-301.
3. Zhang FK, Zhang JY, Jia JD. Treatment of patients with alcoholic liver disease. *Hepatobiliary Pancreat Dis Int.* 2005;4(1):12-7.
4. Hasani-Ranjbar S, Larijani B, Abdollahi M. A Systematic Review of the Potential Herbal Sources of Future Drugs Effective in Oxidant-Related Diseases. *Inflamm Allergy Drug Targets.* 2009;8(1):2-10.
5. Abenavoli L, Capasso R, Milic N, Capasso F. Milk thistle in liver diseases: past, present, future. *Phytother Res.* 2010;24(10):1423-32.
6. Pradhan SC, Girish C. Hepatoprotective herbal drug, silymarin from experimental pharmacology to clinical medicine. *Indian J Med Res.* 2006;124(5):491-504
7. Griffith CM, Schenker S. The role of nutritional therapy in alcoholic liver disease. *Alcohol Res Health.* 2006; 29(4):296-306.
8. Majumdar S, Maiti A, Karmakar S, Das AS, Mukherjee S et al. Antiapoptotic efficacy of folic acid and vitamin B12 against arsenic-induced toxicity. *Environ Toxicol.* 2012;27(6):351-63.
9. Wu JW, Lin LC, Hung SC, Lin CH, Chi CW, Tsai TH. Hepatobiliary Excretion of Silibinin in Normal and Liver Cirrhotic Rats. *Drug Metab Dispos.* 2008;36(3):589-96.
10. Seeff LB, Lindsay KL, Bacon BR, Kresina TF, Hoofnagle JH. Complementary and Alternative Medicine in Chronic Liver Disease. *Hepatology.* 2001;34(3):595-603.
11. He Q, Kim J, Sharma RP. Silymarin protects against liver damage in BALB/c mice exposed to fumonisin B1 despite increasing accumulation of free sphingoid bases. *Toxicol Sci.* 2004;80(2):335-42.
12. Rajamanickam S, Velmurugan B, Kaur M, Singh RP, Agarwal R. Chemoprevention of intestinal tumorigenesis in APCmin/+ mice by silibinin. *Cancer Res.* 2010 ;70(6):2368-78.
13. Burczynski FJ, Wang G, Nguyen D, Chen Y, Smith HJ, Gong Y. Silymarin and hepatoprotection. *Zhong Nan Da Xue Xue Bao Yi Xue Ban.* 2012;37(1):6-10.
14. Haddad Y, Vallerand D, Brault A, Haddad PS. Antioxidant and hepatoprotective effects of silibinin in a rat model of nonalcoholic steatohepatitis. *Evid Based Complement Alternat Med.* 12 Jan 2011, doi: 10.1093/ecam/nep164.
15. El-Kamary, SS, Shardell MD, Abdel-Hamid M, Ismail S, El-Ateek M, Metwally M, Mikhail N, Hashem M, Mousa A, Aboul-Fotouh A, El-Kassas M, Esmat G, and Strickland GT. A Randomized Controlled Trial to Assess the Safety and Efficacy of Silymarin on Symptoms, Signs and Biomarkers of Acute Hepatitis. *Phytotherapy* 2009;16(5):391-400.
16. Seeff LB, Curto TM, Szabo G, Everson GT, Bonkovsky HL, Dienstag DL, Shiffman ML, Lindsay KL, Lok ASF, Di Bisceglie AM, Lee WM, and Ghany MG. Herbal Product Use by Persons Enrolled in the Hepatitis C Antiviral Long-Term Treatment Against Cirrhosis (HALT-C) Trial. *Hepatology* 2008;47(2):605-12.

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Vigor Liver Capsule

Milk Thistle Extract (Complex formula)

強效 健肝靈
天然奶薊草(複方)精華



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Good Manufacturing Practice