

Milk Thistle

This fact sheet provides basic information about the herb milk thistle—common names, uses, potential side effects, and resources for more information. Milk thistle is a plant that is native to the Mediterranean region. It has been used for thousands of years as a remedy for a variety of ailments, especially liver problems.

Common Names—milk thistle, Mary thistle, holy thistle. Milk thistle is sometimes called silymarin, which is actually a mixture of the herb's active components, including silybinin (also called silibinin or silybin).

Latin Name—*Silybum marianum*

What It Is Used For

Milk thistle is believed to have protective effects on the liver and improve its function. It is typically used to treat liver cirrhosis, chronic hepatitis (liver inflammation), and gallbladder disorders. Treatment claims also include:

- Lowering cholesterol levels
- Reducing insulin resistance in people with type 2 diabetes who also have cirrhosis
- Reducing the growth of cancer cells in breast, cervical, and prostate cancers

How It Is Used

Milk thistle is a flowering herb. Silymarin, which can be extracted from the seeds (fruit), is believed to be the biologically active part of the herb. The seeds are used to prepare capsules containing powdered herb or seed; extracts; and infusions (strong teas).

What the Science Says

- There have been some studies of milk thistle on liver disease in humans, but these have been small. Some promising data have been reported, but study results at this time are mixed.
- Although some studies conducted outside the United States support claims of oral milk thistle to improve liver function, there have been flaws in study design and reporting. To date, there is no conclusive evidence to prove its claimed uses.
- NCCAM is supporting a phase II research study to better understand the use of milk thistle for chronic hepatitis C. With the National Institute of Diabetes and Digestive and Kidney Diseases, NCCAM is planning further studies of milk thistle for chronic hepatitis C and nonalcoholic steatohepatitis (liver disease that occurs in people who drink little or no alcohol).
- The National Cancer Institute and the National Institute of Nursing Research are also studying milk thistle, for cancer prevention and to treat complications in HIV patients.



Side Effects and Cautions

- In clinical trials, milk thistle generally has few side effects. Occasionally, people report a laxative effect, upset stomach, diarrhea, and bloating.
- Milk thistle can produce allergic reactions, which tend to be more common among people who are allergic to plants in the same family (for example, ragweed, chrysanthemum, marigold, and daisy).
- It is important to inform your health care providers about any herb or dietary supplement you are using, including milk thistle. This helps to ensure safe and coordinated care.

Sources

Agency for Healthcare Research and Quality. *Milk Thistle: Effects on Liver Disease and Cirrhosis and Clinical Adverse Effects*. Evidence Report/Technology Assessment no. 21. Rockville, MD: Agency for Healthcare Research and Quality; 2000. 01-E024. Also accessible at <http://www.ahrq.gov/clinic/epcsums/milksum.htm>.

Milk thistle (*Silybum marianum*). In: Coates P, Blackman M, Cragg G, et al., eds. *Encyclopedia of Dietary Supplements*. New York, NY: Marcel Dekker; 2005:467-482. Accessed at <http://www.dekker.com> on August 22, 2005.

Milk thistle. Natural Medicines Comprehensive Database. Accessed at <http://www.naturaldatabase.com> on August 22, 2005.

Milk thistle (*Silybum marianum*), silymarin. Natural Standard Database Web site. Accessed at <http://www.naturalstandard.com> on August 22, 2005.

Milk thistle fruit. In: Blumenthal M, Goldberg A, Brinckman J, eds. *Herbal Medicine: Expanded Commission E Monographs*. Newton, MA: Lippincott Williams & Wilkins; 2000:257-263.

National Center for Complementary and Alternative Medicine. *Hepatitis C and Complementary and Alternative Medicine: 2003 Update*. National Center for Complementary and Alternative Medicine Web site. Accessed at <http://nccam.nih.gov/health/hepatitisc> on August 22, 2005.

For More Information

Visit the NCCAM website at nccam.nih.gov and view:

- “What’s in the Bottle? An Introduction to Dietary Supplements” at nccam.nih.gov/health/bottle
- “Herbal Supplements: Consider Safety, Too” at nccam.nih.gov/health/supplement-safety

NCCAM Clearinghouse

Toll-free: 1-888-644-6226

TTY (for deaf and hard-of-hearing callers): 1-866-464-3615

E-mail: info@nccam.nih.gov

CAM on PubMed

Web site: www.nlm.nih.gov/nccam/camonpubmed.html

NIH Office of Dietary Supplements

Web site: www.ods.od.nih.gov

This document is not copyrighted and is in the public domain. Duplication is encouraged.

NCCAM has provided this material for your information. It is not intended to substitute for the medical expertise and advice of your primary health care provider. We encourage you to discuss any decisions about treatment or care with your health care provider. The mention of any product, service, or therapy is not an endorsement by NCCAM.

National Institutes of Health



U.S. Department of Health and Human Services