



# ARTICHOKE EXTRACT

**2 ounces / 60 ml**

**Retail price: \$18.95**

Raintree Nutrition's concentrated Artichoke Extract uses new and proprietary extraction methods to concentrate and preserve the active ingredients found in this wonderful plant. Concentration and extraction methods provide the equivalent of 500 mg of artichoke leaf and 500 mg of artichoke fruit per milliliter of extract.

**Ingredients:** Artichoke leaf and fruit extracted in distilled water, vegetable glycerine and 10% alcohol.

**Suggested Use:** 60 drops (2 ml) 2 or more times daily or as desired

**Contraindications:** None known.

**Drug Interactions:** May potentiate anti-cholesterol drugs.

**Other Observations:**

- Artichoke has demonstrated antihepatotoxic (liver detoxifying) effects in animal studies. This effect may speed the clearance of certain drugs required to be metabolized in the liver.
- Artichoke has been documented to lower cholesterol in animal and human studies. Those taking drugs to lower their cholesterol may need to check with their health care provider to determine if dosages require adjusting.

## **Clinical Documentation and Research:**

This formulated product has not been the subject of any clinical research. Available third-party documentation and clinical research the main ingredient, Artichoke, can be found at the Raintree website. A partial listing of published research on these ingredients is shown below:

Jimenez-Escrig, A., et al. "In vitro antioxidant activities of edible artichoke (*Cynara scolymus* L.) and effect on biomarkers of antioxidants in rats." *J. Agric Food. Chem.* 2003 Aug 27; 51(18): 5540-5.

Thompson Coon, J. S., et al. "Herbs for serum cholesterol reduction: a systematic view." *J. Fam. Pract.* 2003 Jun;52(6):468-78.

Speroni, E., et al. "Efficacy of different *Cynara scolymus* preparations on liver complaints." *J. Ethnopharmacol.* 2003 Jun; 86(2-3): 203-11.

Saenz Rodriguez, T., et al. "Choleretic activity and biliary elimination of lipids and bile acids induced by an artichoke leaf extract in rats." *Phytomedicine.* 2002 Dec; 9(8): 687-93.

Wang, M., et al. "Analysis of antioxidative phenolic compounds in artichoke (*Cynara scolymus* L.)." *J. Agric. Food Chem.* 2003 Jan 29; 51(3): 601-8.

Shimoda, H., et al. "Anti-hyperlipidemic sesquiterpenes and new sesquiterpene glycosides from the leaves of artichoke (*Cynara scolymus* L.): structure requirement and mode of action." *Bioorg. Med. Chem. Lett.* 2003 Jan 20; 13(2): 223-8.

Gebhardt, R. "Inhibition of cholesterol biosynthesis in HepG2 cells by artichoke extracts is reinforced by glucosidase pretreatment." *Phytother. Res.* 2002; 16(4): 368-72.

Zapolska-Downar, D., et al. "Protective properties of artichoke (*Cynara scolymus*) against oxidative stress induced in cultured endothelial cells and monocytes." *Life Sci.* 2002 Nov 1; 71(24): 2897-08.

Gebhardt, R. "Prevention of tauro lithocholate-induced hepatic bile canalicular distortions by

HPLC-characterized extracts of artichoke (*Cynara scolymus*) leaves." *Planta Med.* 2002 Sep; 68(9): 776-9.

Wegener, T. "The status of herbal antilipemic agents." *Wien. Med. Wochenschr.* 2002; 152(15-16): 412-7.

Gebhardt, R. "Anticholestatic activity of flavonoids from artichoke (*Cynara scolymus* L.) and of their metabolites." *Med. Sci. Monit.* 2001 May; 7 Suppl 1:316-20.

Englisch, W., et al. "Efficacy of artichoke dry extract in patients with hyperlipoproteinemia." *Arzneimittelforschung* 2000; 40(3): 260-65.

Llorach, R., et al. "Artichoke (*Cynara scolymus* L.) byproducts as a potential source of health-promoting antioxidant phenolics." *J. Agric. Food Chem.* 2002 Jun 5; 50(12): 3458-64.

Aktay, G., et al. "Hepatoprotective effects of Turkish folk remedies on experimental liver injury." *J. Ethnopharmacol.* 2000 Nov; 73(1-2): 121-9.

Wegener, T., et al. "Pharmacological properties and therapeutic profile of artichoke (*Cynara scolymus* L.)" *Wien. Med. Wochenschr.* 1999; 149(8-10): 241-7.

Gebhardt, R. "Inhibition of cholesterol biosynthesis in primary cultured rat hepatocytes by artichoke (*Cynara scolymus* L.) extracts." *J. Pharmacol. Exp. Ther.* 1998 Sep; 286(3): 1122-8.

Gebhardt, R. "Antioxidative and protective properties of extracts from leaves of the artichoke (*Cynara scolymus* L.) against hydroperoxide-induced oxidative stress in cultured rat hepatocytes." *Toxicol. Appl. Pharmacol.* 1997 Jun; 144(2): 279-86.

Adzet, T., et al. "Hepatoprotective activity of polyphenolic compounds from *Cynara scolymus* against CCl<sub>4</sub> toxicity in isolated rat hepatocytes." *J. Nat. Prod.* 1987 Jul-Aug; 50(4): 612-7.

Pristautz, H., et al. "Cynarin in the modern management of hyperlipemia." *Wien Med. Wochenschr.* 1975; 125(49): 705-9.

Montini, M., et al. "Controlled application of cynarin in the treatment of hyperlipemic syndrome. Observations in 60 cases." *Arzneimittelforschung* 1975; 25(8): 1311-14.

Grogan, J. L., et al. "Potential hypocholesterolemic agents: dicinnamoyl esters as analogs of cynarin." *J. Pharm. Sci.* 1972; 61(5): 802-3.

This high quality product is distributed through health food stores, health practitioners and by Raintree Nutrition. Please contact a health professional concerning other observations and/or effects of this product and/or if you have any disease, condition, or illness for which you are seeking treatment or products for.

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