



Artichoke juice powder

DIGESTIVE AID , LIVER PROTECTION

# THE LONG HISTORY OF ARTICHOKE

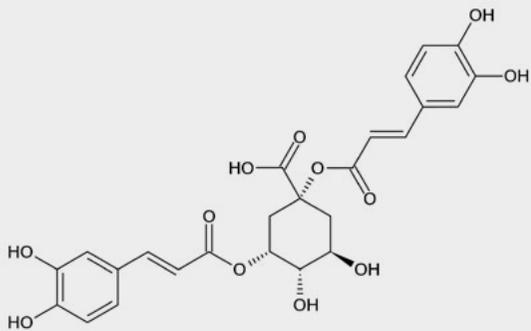
## HISTORY

The actual artichoke *Cynara scolymus L* belongs to the plant family of *Asteraceae*. This large thistle - like plant, is native to Mediterranean Southern Europe, North Africa and the Canary Islands. It is one of the world's oldest medicinal plants. Indeed, the ancient Egyptians placed great value on this plant. Moreover, artichoke was used by the ancient Greeks and Romans as a digestive aid. Nowadays, the use of artichoke in folk medicine have been confirmed to a great extent by modern bio-medical research. In particular, antioxidant, hepatoprotective, bile -enhancing and lipid lowering effects have been demonstrated.

## ARTICHOKE ACTIVE COMPONENTS

Artichoke contains bitter principles, *cynarin*. Scientific studies show that these compounds, not only inhibit cholesterol synthesis but also increase its excretion in the bile, and thus, help overall reduction in the total cholesterol levels in the blood.

**Chemical Structure of Cynarin**  
(1,5-dicaffeoylquinic acid)



# POTENTIAL HEALTH BENEFITS

## DIGESTIVE AID AND LIVER PROTECTION

Artichoke extract can be used as very effective digestive aid for people with digestive disturbance. Recently, interest has been generated on the potential of artichoke leaf extract in treatment of dyspeptic symptoms (10),(14),(16). For example, a clinical study showed an improvement of symptoms in 50% of patients suffer from dyspeptic syndrom after only 14 days of treatment with artichoke leaf extract (14). According to Gebhardt and colleagues in 1997, artichoke extracts have a marked antioxidative and hepatoprotective potential which can be ascribed, at least partially, to some ubiquitous and artichoke specific polyphenolic and flavonoid compounds (5). Jiménez-Escrig et al, 2003, also confirm the in vitro protective activity of artichoke in a rat model (11).



## CARDIOVASCULAR PREVENTION

According to current findings, the extract should affect the patho mechanisms of atherosclerosis at different levels : by inhibiting hepatocellular cholesterol synthesis, by increased elimination of cholesterol due to choleresis and by inhibition of LDL oxidation (3).

## SPECIFICATION ARTICHOKE JUICE POWDER

- ✓ Light brown color powder
- ✓ Good solubility in water
- ✓ Water extraction
- ✓ Produce in France in Diana FSSC22000 certified plant
- ✓ Standardized in active cinnamic acids (>2.5% as cynarin equivalent)
- ✓ Shelf-life ; 24 months



### Sources;

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[10] Holtmann G, Adam B, Haag S, Collet W, Grunewald E, Windeck T. (2003). Efficacy of artichoke leaf extract in the treatment of patients with functional dyspepsia: a six-week placebocontrolled, double -blind, multicentre trial. *Aliment Pharmacol Ther.* ;18(11-12) : 1099-105.

[11] Jimenez-Escrig A, Dragsted LO, Daneshvar B, Pulido R, Saura-Calixto F. (2003). In vitro antioxidant activities of edible artichoke (*Cynara scolymus* L.) and effect on biomarkers of antioxidants in rats. *J Agric Food Chem.* ; 51(18) : 5540-5.

[14] Kupke et al (1991). Prufung der choleretischen Aktivitat eines pflanzlichen Cholagogums. *Z. Allg. Med.* 67 : 1046.

[16] Marakis G, Walker AF, Middleton RW, Booth JC, Wright J, Pike DJ. (2002). Artichoke leaf extract reduces mild dyspepsia in an open study. *Phytomedicine* ; 9(8) : 694-9.

[25] Zapolska-Downar D, Zapolski-Downar A, Naruszewicz M, Siennicka A, Krasnodebska B,

Koldziej B. (2002). Protective properties of artichoke (*Cynara scolymus*) against oxidative stress induced in cultured endothelial cells and monocytes. *Life Sci* ; 71(24) : 2897-08.



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