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# HERBCLIP

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FILE: · Artichoke leaf (*Cynara scolymus*)  
· Dyspepsia, GI upsets  
· Lipid lowering agents  
· Cardiovascular disease prevention  
· Hepatoprotection

DATE: September 24, 1998

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RE: Health Benefits of Artichoke Leaf

Kraft, K. Artichoke leaf extract--Recent findings reflecting effects on lipid metabolism, liver and gastrointestinal tracts. *Phytomedicine*, 1997, Vol. 4 (4), pp. 369-378.

Erratum: *Phytomedicine*, 1998, Vol. 5 (3), p. 244.

Both traditional and recent literature suggests artichoke leaf extract has the ability to alleviate abdominal pain as well as having choleric, lipid-lowering and hepatoprotective effects. The artichoke (*Cynara scolymus* L.) has been used medically since the 4th century B.C. Theophrastus, a pupil of Aristotle, was one of the first to describe the plant in depth. The modern artichoke is a derivative of the wild artichoke, *Cynara cardunculus*. *Carduus marianus* (milk thistle or *Silybum marianum*, today) was at one time also considered part of this genus. Modern extracts are made from the leaves (*Cynarae folium*), using highly standardized procedures.

## Dyspepsia

Both laboratory and clinical studies strongly suggest artichoke leaf extract to be a good therapeutic option in dyspeptic syndrome. Several clinical studies have found significant clinical and statistical improvement in symptoms of dyspeptic syndrome (irritable stomach, nervous gastropathy, flatulence, irritable colon, functional biliary tract disease) in as many as 87% of patients studied. In one study, 98% of the patients taking artichoke extract believed it to be better, somewhat better or equal to that of other drugs they had been treated with before.

## Lipid-lowering and anti-atherosclerotic effects

Several studies have hinted at the ability of artichoke extract to lower lipid levels. It works by affecting cholesterol synthesis in the liver at several points in the synthetic pathway and by increasing the elimination of cholesterol. As a result, accumulation of undesired sterol compounds described for some synthetic lipid-lowering agents would not be expected with artichoke leaf

extract. According to the most recent findings, the compound luteolin, found in artichoke extract, plays a crucial role in the inhibition of cholesterol synthesis. Luteolin is released from its glucoside (which has a weaker effect) by beta-glucosidase in the digestive tract as well as in liver cells. Recent experiments with liver cell culture have demonstrated a clear increase in the secretion of biliary substances and an increase in the number and size of the secreting bile ducts within the cells after administration of an artichoke extract. In a recent, double-blind, randomized, placebo-controlled study, the lipid-lowering potential of artichoke leaf extract was investigated in 44 healthy volunteers. Those with total cholesterol baseline values above 220mg/dl experienced a significant decrease compared with those receiving a placebo; the higher the baseline value, the larger the reduction in lipids. Moreover, protective high-density lipoproteins (HDLs) tended to increase. It has also been suggested that artichoke leaf extract inhibits the oxidation of low-density lipoproteins (LDLs), preventing the development and progression of atherosclerosis. The author suggests that because of its safety and low cost, it could possibly be used for the prevention of atherosclerosis and its complications.

### **Hepatoprotective effects**

Several animal experiments have demonstrated that artichoke extract exerts strong antioxidant effects on the liver. The active substances responsible for the antioxidative effect of artichoke extract have been identified as a mixture of polyphenols and flavonoids (caffeic acid, chlorogenic acid, cynarin, luteolin-7-O-glucoside (cynaroside) and luteolin. To date, however, the hepatoprotective effects of artichoke leaf extract has not been proven in controlled clinical trials.

### **Anti-nausea effects**

Clinical observations of outpatients with dyspeptic syndrome have shown that artichoke leaf extract has a strong anti-nausea and anti-emetic effect. The author suggests that as a well-tolerated phytomedicine, artichoke leaf extract might be used as adjuvant medication in oncology.

### **Safety**

Several studies have found artichoke leaf extract to be well tolerated, with a minimum of side effects. Though no hints of allergic reactions have been reported following oral intake of the extract, local atopic reactions have been reported after skin contact with the fresh plant. There are no known interactions with conventional drugs. —*Densie Webb, PhD*