



HAWTHORN PHYTOSOME®

Natural support for heart function

Perhaps you are one of many persons suffering from chronic heart disease. Imagine being enrolled in a clinical trial and given 600 milligrams of a plant extract daily. Soon, you have more stamina and endurance, you can ride longer on a stationary bicycle, you feel less fatigue, and less shortness of breath. Sound too good to be true? Well, that is exactly what happened to patients who were given 600 milligrams of hawthorn extract in a clinical trial.

WHAT IS HAWTHORN?

A novice gardener might describe this plant as a shrubby tree with sharp thorns, pretty white flowers that resemble roses and bright red fruit. The species most used medicinally is *Crataegus oxyacantha*. While Dioscorides, a Greek herbalist of the first century used hawthorn medicinally, it was not really used much as a heart tonic until the early part of this century. Since then, it has undergone extensive scientific investigation with a number of preparations made from its flowers, leaves and fruit prescribed for heart ailments by European physicians. So what does science reveal?

WHAT ARE THE EFFECTIVE ACTIVES?

A common hawthorn extract used in European studies (LI 132) showed that its important components are flavonoids, flavoglycosides (quercetin, rutin, hyperoside, vitexin), and oligomeric procyanidins. Although the whole plant exerts a pharmacological effect, effective hawthorn extracts are standardized to flavonoids such as vitexin.

WHAT EFFECT DOES HAWTHORN EXTRACT HAVE ON THE HEART?

- Hawthorn increases the ability of the heart muscle to contract, making the heart a more efficient pump
- It increases coronary blood flow
- Hawthorn reduces peripheral vascular resistance, helping blood to circulate to the extremities
- Hawthorn's procyanidins are potent antioxidants, helping to quench free radicals

CLINICAL TRIALS SHOW BENEFIT

A number of clinical trials since the early 1980's show hawthorn to be beneficial for a number of heart conditions. In 1994, 132 patients with heart failure were treated with 900 mg of hawthorn extract (LI 132) or 37.5 mg of Captopril for 8 weeks. The researchers wanted to determine if hawthorn or the ACE-inhibitor, Captopril (drug used to

lower blood pressure) helped these patients increase their tolerance to exercise induced stress. "Both groups exhibited a statistically significant increase in their ability to withstand exercise induced stress during the trial. The incidence and severity of the volunteers' symptoms (shortness of breath; fatigue after exercise, etc.) also decreased by 50%. No serious adverse effects were reported using the LI 132 extract." The hawthorn extract had the same effect on exercise induced stress tolerance as the ACE inhibitor, Captopril. While this relatively high dose of hawthorn is needed to increase exercise tolerance, lower doses of 100 to 300 mg per day have shown improvement in cardiac symptoms. (Reichert)

In another randomized double-blind trial, 78 patients with coronary insufficiency were given either 600 mg of hawthorn extract (LI 132) or a placebo for eight weeks. When symptoms of "tiring easily" and "general decrease in physical ability" were measured, the patients taking hawthorn improved while the placebo group deteriorated. Systolic blood pressure improved in the hawthorn group while there were no significant changes in the placebo group. At the highest level of stress, the average heart beats per minute in the hawthorn group was lowered from 115 to 110 beats per minute. (Schmidt, *et al.*)

In a more recent trial, 136 patients with congestive heart failure (NYHA class 11) were given hawthorn or placebo for 8 weeks. Patients were evaluated at the beginning of the trial and after 8 weeks. The patients taking hawthorn experienced a statistically significant improvement in cardiac function. A subjective evaluation of their complaints and symptoms showed that the hawthorn group improved in exercise performance, shortness of breath, ankle edema and nocturia. "In addition, active treatment led, in comparison with placebo, to a considerably better quality of life for the patient, in particular with respect to mental well-being. The tolerability of the active substance proved to be very good as shown by comprehensive laboratory investigations and the recording of undesirable events." (Weikl, *et al.*)

IS IT SAFE?

Flavonoid-rich hawthorn is very safe, even for long-term use. However, we caution that anyone who suspects heart disease or who has active heart disease not self-medicate, but use hawthorn under the guidance of their health care practitioner. More and more mainstream health care practitioners are accepting alternative therapies that are less

invasive provided they are effective. We suggest that you share with your health care practitioner information about hawthorn's potential to improve blood flow to the heart; increase the heart's efficiency through improved heart muscle contraction; increase circulation to the extremities; to scavenge free radicals.

Even though hawthorn is very safe, persons on cardiac medication, such as digitalis, should be cautious as it can potentiate the effect of digitalis.

WHAT IF I DON'T HAVE HEART DISEASE?

Many persons use hawthorn prophylactically to maintain healthy cardiac function. We might take our cue from the Germans who use hawthorn as a cardi tonic before heart problems begin. Daniel Mowrey explains: "Cardiotonics are widely used in Europe, especially Germany, throughout a person's adult life. A routine checkup in Germany will often produce some sign that cardiovascular disease is a potential problem. Instead of waiting until the condition gets markedly worse, and then administering a powerful habituating drug such as the digitalis derivatives, German physicians will prescribe a simple herbal tonic, perhaps hawthorn... The difference between using a cardi tonic and not using one may be counted in the number of decades of good cardiovascular health you have left to enjoy before you succumb to drug therapy or surgery." (Mowrey) Some herbalists suggest hawthorn for restlessness and insomnia.

GERMAN COMMISSION E

The German Commission E monograph indicates that hawthorn is useful for persons with cardiac insufficiency. There are no known contraindications, side-effects or interactions with other drugs. Hawthorn should be taken for a minimum of six weeks.

PHYTOSOME SUPERIORITY

Natural Factors Hawthorn Phytosome takes advantage of hawthorn's benefits for the heart and delivers these benefits in a very bioavailable phytosome form.

Hawthorn phytosome combines the standardized herbal extract with phosphatidylcholine, improving absorption, increasing biological activity and delivering hawthorn's benefits to the target site, the heart.

HOW MUCH IS NEEDED?

In Europe the daily dosage for hawthorn preparations standardized to 1.8% vitexin 4-rhamnoside is 120 to 240 mg, three times per day. Hawthorn phytosome's increased bioavailability lowers that daily dose to one to two 50 mg capsules per day, or as directed by a health care practitioner.

Hawthorn has been helping Europeans for decades. As the acceptance of herbal medicines continues to grow, hawthorn will soon be taking its rightful place beside echinacea, St. John's Wort and ginkgo biloba, the important herbal medicines of our decade.

KEY REFERENCES

Mowrey D.B., *Herbal Tonic Therapies, Keats*; 1993

Reichert R., "Further proof of hawthorn's effectiveness in heart failure," *Quarterly Review of Natural Medicine*, Summer 1994, p 105, referring to Tauchert M., et al., "Effectiveness of the hawthorn extract LI 132 compared with the ACE inhibitor Captopril," Multicentre double-blind study with 132 NYHA Stage 11, *Munch Med*, 146 Suppl, 1: S27-S33; 1994

Schmidt D., Kuhn D., et al., "Efficacy of the hawthorn (Crataegus) preparation LI 132 in 78 patients with chronic congestive heart failure as defined as NYHA functional class 11," *Phytomedicine*, 1: 17-24; 1994

Weikl A., Assmus K.D., et al., "Crataegus special extract WS 1442, Assessment of objective effectiveness in patients with heart failure (NYHA 11)," *Fortschr Med*, 114: 291-296; 1996