



# GREEN COFFEE BEAN

RESEARCH INFORMATION

## Feature summary

Obesity is a growing problem throughout the world, and being overweight is associated with serious diseases including diabetes, high blood pressure, heart disease, and stroke.

A supplement isolated from green coffee beans is showing great promise in helping people lose weight, regulate blood sugar, and reduce blood pressure. Coffee beans contain a wide range of active compounds that can affect our health. One of these constituents, chlorogenic acid, has been shown to improve glucose metabolism, inhibit the accumulation of fat, and decrease the absorption of glucose in the intestines. Roasting coffee beans destroys most of the chlorogenic acid, so drinking a cup of coffee will not yield these benefits. Only raw green coffee beans contain a significant amount of this health-promoting compound.

Clinical studies indicate that green coffee bean extract can promote weight loss, as well as reduce blood pressure in people with hypertension. Scientifically proven Svetol® Green Coffee Bean Extract is made from pure, raw, unroasted green coffee beans rich in chlorogenic acids and polyphenols. It contains less than 2 % caffeine, making it a stimulant-free weight management supplement that is best used with a program of reduced dietary calories and increased physical activity.

## How it works

The beneficial qualities of green coffee bean, particularly its ability to help with weight loss, spring from its high concentration of the compound chlorogenic acid. Evidence shows that chlorogenic acid has a positive effect on our glucose metabolism. Impaired glucose metabolism can put us at risk for high blood sugar levels, obesity, diabetes, and cardiovascular disease.

Chlorogenic acid inhibits the accumulation of fat, reduces post-meal blood sugar levels, and decreases the absorption of glucose in the small intestine. It accomplishes this by preventing an enzyme, hepatic glucose-6-phosphatase, from forming glucose in the liver. Scientists suggest that the glycemic effects of chlorogenic acid play an important role in facilitating weight loss.

Chlorogenic acid also has an antihypertensive effect. Studies indicate that it helps reduce blood pressure and improve vasoreactivity – the response of blood vessels to stimuli. Enhanced blood flow reduces the risk of cardiac problems, and brings oxygen and nourishment to tissues throughout the body.

It's also thought that green coffee bean has antioxidant and anti-inflammatory properties, which may contribute to its weight loss and cardiovascular benefits. To exert these beneficial effects, extracts made from green coffee bean must contain at least 45–50% chlorogenic acid.

## Research

Green coffee bean extract shows promise in helping patients lose weight and reduce blood pressure.

In one animal study, mice were fed a diet containing green coffee bean extract for 14 days. Researchers found that the extract reduced the visceral fat and body weight of the mice. The extract's content of chlorogenic acid lowered the hepatic triglycerides of the mice as well (Shimoda et al., 2006).

In one double-blind, placebo-controlled crossover study, 16 subjects received a high dose of green coffee bean extract (1050 mg), a low dose (700 mg), or a placebo, in separate six-week treatment periods. Participants took 2-week breaks after each dosing period to reduce the likelihood of one treatment affecting the next. No dietary restrictions were prescribed. Scientists observed significant reductions in body weight, body mass index, and the percentage of body fat in the green coffee bean groups versus those taking the placebo. The group taking the high dose of green coffee bean extract also experienced a reduction in heart rate (Vinson et al., 2012).

In another series of two studies, scientists investigated the effects of chlorogenic acid on glucose absorption and body mass. During the first study, 12 volunteers were all given coffee drinks, one enriched with chlorogenic acid, and one without. The coffee with chlorogenic acid reduced the absorption of glucose by 6.9%, while no such effect was observed in the regular coffee group. In the second study, involving 30 overweight subjects, half drank instant coffee enriched with chlorogenic acid, while the other half drank regular instant coffee. After 12 weeks, the chlorogenic acid group lost an average of 5.4 kg, while the regular instant coffee group lost only 1.7 kg (Thom, 2007).

Green coffee bean extract has also been studied for its role in improving hypertension. In a placebo-controlled, randomized study of patients with mild hypertension, subjects who received 140 mg of green coffee bean extract per day experienced a significant reduction in blood pressure. No adverse side effects were reported by the participants (Watanabe et al., 2006).

Another randomized, double-blind, placebo-controlled study examined the relationship between hypertension and different doses of green coffee bean extract. During the study, 117 hypertensive males 30–50 years old were divided into groups and received 46 mg, 93 mg, or 185 mg of green coffee bean extract, or a placebo, once a day. After 28 days, the 93 mg and 185 mg groups showed much greater reductions in both systolic and diastolic blood pressure than those taking the placebo, and they didn't experience any negative side effects. This led researchers to conclude that green coffee bean extract reduces blood pressure in hypertensive subjects, and may help prevent stroke and heart disease (Kozuma et al., 2005).

## Ingredients

Each Capsule Contains:

Svetol® Green Coffee Bean Extract .....400 mg  
(*Coffea canephora*) (seed) (standardized to 45–50%  
total chlorogenic acid, 50–55% polyphenols,  
10–15% 5-caffeoylquinic acid)

## Recommended adult dose

1 capsule daily, 30 minutes before a meal with a glass of water, or as directed by a health care practitioner.

## Caution

Consult a health care practitioner prior to use if you are pregnant or breastfeeding. Keep out of reach of children.

## References

- Kozuma, K., Tsuchiya, S., Kohori, J., Hase, T., Tokimitsu, I. (2005). Antihypertensive effect of green coffee bean extract on mildly hypertensive subjects. *Hypertens Res*, 28 (9): 711-8.
- Shimoda, H., Seki, E., Aitani, M. (2006). Inhibitory effect of green coffee bean extract on fat accumulation and body weight gain in mice. *BMC Complement Altern Med*, 6: 9.
- Thom, E. (2007). The effect of chlorogenic acid enriched coffee on glucose absorption in healthy volunteers and its effect on body mass when used long-term in overweight and obese people. *J Int Med Res*, 35 (6): 900-8.
- Vinson, J.A., Burnham, B.R., Nagendran, M.V. (2012). Randomized, double-blind, placebo-controlled, linear dose, crossover study to evaluate the efficacy and safety of a green coffee bean extract in overweight subjects. *Diabetes Metab Syndr Obes*, 5: 21-7. doi: 10.2147/DMSO.S27665. Epub 2012 Jan 18.
- Watanabe, T., Arai, Y., Mitsui, Y., Kusaura, T., Okawa, W., et al. (2006). The blood pressure-lowering effect and safety of chlorogenic acid from green coffee bean extract in essential hypertension. *Clin Exp Hypertens*, 28 (5): 439-49.