

Breaking News on Supplements & Nutrition - Europe

Soy effective for cholesterol cuts - meta-analysis

By Stephen Daniells

07/05/2007- Soy isoflavones and proteins are effective at reducing cholesterol levels and offer significant benefits for cardiovascular health, suggests a new meta-analysis from Japan.

The review adds to the science behind the observed benefits that have previously been linked to the effect of isoflavones on blood cholesterol levels. However, this point is controversial and a scientific statement by the American Heart Association (AHA) in the journal *Circulation* concluded that soy had little effect on cholesterol levels, and raised doubts about health claims associated with soy.

Indeed, Dr Frank Sacks, a member of the AHA panel, said at the start of 2006: "It's really clear that isoflavones don't contribute anything to cardiovascular benefits."

The new findings, published in the current issue of the *American Journal of Clinical Nutrition*, states that soy isoflavones may impact on LDL-cholesterol levels and soy proteins with or without isoflavones can decrease LDL levels and increase HDL levels, a result that does impact beneficially on heart health.

If these findings are reproduced in future studies, they might lead to a re-evaluation of the science that led Dr. Sacks and the AHA to their conclusion.

"Soy isoflavones significantly reduced serum total and LDL cholesterol but did not change HDL cholesterol and triacylglycerol. Soy protein that contained enriched or depleted isoflavones also significantly improved lipid profiles," wrote lead author Kyoko Taku from Japan's National Institute of Health and Nutrition.

The researchers selected 11 randomised controlled trials published between 1990 and 2006. After pooling the data, Taku and co-workers report that soy isoflavones significantly decreased total cholesterol levels by 1.77 per cent (3.9 mg/dL) and LDL cholesterol by 3.58 per cent (5.0 mg/dL), but did not have a significant impact on HDL cholesterol and triacylglycerol levels.

When they looked at soy protein enriched with isoflavones significantly decreased LDL cholesterol by 4.98 per cent (7.0 mg/dL) and significantly increased HDL cholesterol by 3.0 per cent (1.6 mg/dL). Soy protein with isoflavones removed significantly decreased LDL cholesterol by 2.77 per cent (3.9 mg/dL).

"Reductions in LDL cholesterol were larger in hypercholesterolaemic than in normo-cholesterolaemic subjects," stated the researchers.

High cholesterol levels, hypercholesterolaemia, have a long association with many diseases, particularly cardiovascular disease (CVD), the cause of almost 50 per cent of deaths in Europe, and reported to cost the EU economy an estimated €169bn (\$202bn) per year.

Source: *American Journal of Clinical Nutrition*
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"Soy isoflavones lower serum total and LDL cholesterol in humans: a meta-analysis of 11 randomized controlled trials"

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