Background: One of the most common causes of death in Sweden is due to cardiovascular diseases such as heart attack and stroke. Hypercholesterolemia is one of the risk factors for cardiovascular disease. In Asia, hypercholesterolemia is less common than in the Western countries. In Asian countries, soy products are consumed in larger quantities than in the Western world, which has led to implemented research with the intention of examining soy's potential effect on cholesterol levels.

Objective: To investigate whether there is scientific evidence that isoflavone supplementation from soybean may have a lowering effect on LDL-cholesterol.

Search strategy: The databases used for the systematic literature search were PubMed, Scopus and Cochrane. Keywords used were cholesterol and 9 versions of this, and isoflavones and 11 versions of that.

Selection criteria: RCT articles, on humans, written in English, published from 2011 onwards, that focused on interventions with isoflavones from soybeans and its effect on blood cholesterol, the participants were over 18 years old and the study time was at least 24 weeks. Trials with combinations of interventions with other things than isoflavones were excluded.

Data collection and analysis: Four of the articles matched the selection criteria and these were assessed for quality using the SBU's “Audit template for randomized controlled trials” (“Bilaga 2. Mall för kvalitetsgranskning av randomiserade studier”). The outcome, which was LDL cholesterol, was graded using the University of Gothenburg's “Summary form of evidence.” ("Sammanfattande evidensformulär")

Main results: The trials investigated different components of isoflavones found in soy bean. Three of the trials did not make evident any significant difference in LDL-cholesterol after consumption of isoflavones, while one of the trials, showed a significant difference.

Conclusions: The evidence of the LDL-cholesterol lowering effect of isoflavone supplementation from soy bean was considered Low (++). More trials are needed to evaluate the effect of isoflavones on cholesterol levels.