Abstract
Title: Does low fat dairy products reduce blood pressure?
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Background: It is estimated that at least a third of the population in Sweden have a high blood pressure with genetics, unhealthy diet and physical inactivity as the main contributing causes. High blood pressure is one of the greatest risk factors to develop cardiovascular diseases, which is the leading cause of death worldwide. Milk is a nutritional food product and previous research suggests that low fat dairy products may have blood pressure lowering effect.

Objective: The aim was to examine the scientific basis of how low fat dairy products affect blood pressure.

Search strategy: Twelve searches were conducted on PubMed and Scopus, where the chosen search terms were combined to produce a broad search as possible in the particular area. The search terms used were dairy, dairy products, milk, blood pressure and hypertension.

Selection criteria: Studies on normotensive or hypertensive individuals who received low fat dairy products were included. Other inclusion criteria were studies performed on adults above 18 years of age, randomised controlled trials (RCT), studies performed on humans and studies in Swedish or English. Exclusion criteria were caloric restriction, supplementation, special products, whole fat dairy products, multi dietary intervention, diabetes, other illnesses and blood pressure > 160/100

Data collection and analysis: Five relevant studies met the criteria and were analysed and evaluated using the templates developed by SBU,”Mall för kvalitetsgranskning av randomiserade studier”. Outcome measurements were assessed according to a form of summarized evidence from the University of Gothenburg, “Sammanfattande evidensformulär”.

Main results: One study showed a significant reduction on systolic blood pressure with 2.9 mm Hg. Remaining studies showed no significant reduction in blood pressure using low fat dairy products. The evaluation of the scientific basis was assessed to be moderate (+++).

Conclusions: A higher intake of low fat dairy products does not indicate a reduction in blood pressure in adults. However, a blood pressure reduction in long term and thus a prevention of cardiovascular disease cannot be omitted. Further research with longer interventions and high compliance is needed.