Background: Overweight and obesity represents a global problem as it is accompanied by an accumulation of body fat which increases the risk of developing diseases such as diabetes type 2, insulin resistance, cardiovascular diseases and certain types of cancer. Moreover, the prevalence is increasing worldwide. Many consider it difficult to reach a normal weight using only methods such as changing dietary- and exercise habits, this creating a market for products that facilitate weight loss and loss of body fat. The supplement of conjugated linoleic acid (CLA) is such a product. In animal studies, CLA has demonstrated a reduction in both body fat and weight. In human studies however, results have been conflicting.

Objective: The objective of this review was to investigate the scientific evidence supporting that a daily supplementation of CLA can reduce body weight and/or fat mass in adults with BMI ≥ 25 kg/m².

Search strategy: The literature search was conducted through the use of the data bases PubMed and Scopus. The search terms applied were “conjugated linoleic acid supplementation” and “conjugated linoleic acid weight” (PubMed) and “conjugated linoleic acid’ supplementation weight loss” (Scopus).

Selection criteria: The limits used in the literary search were studies using RCT as experimental design and the use of human subjects’ ≥ 19 years of age. Additional criteria was an intervention of ≥ 3 g 50:50 CLA/d, BMI ≥ 25 kg/m², the inclusion of body weight and/or body fat as outcomes and that the study was conducted on healthy individuals.

Data collection and analysis: Based on the aforementioned selection criteria, the literary search resulted in five RCT: s that were individually reviewed and evaluated using templates provided by SBU. Four studies were considered eligible after evaluating the quality. These four studies make the foundation for the final evaluation, where the combined evidence for the clinical endpoints body weight and body fat were evaluated according to the GRADE system.

Main results: Three out of four studies demonstrated that supplementation with 3, 2 - 6, 8 g CLA/d for three to twelve months resulted in a significant reduction in body fat. As for the second clinical outcome, body weight, one out of three studies showed a significant reduction. The studies that showed a significant effect demonstrated a loss of body fat between -1,0 and -2,4 kg after three to twelve months and the amount of lost body weight was -0,6 kg after six months.

Conclusions: The scientific evidence supporting that a daily supplementation of CLA reduces body fat is considered strong (++++) whereas the evidence for an effect on body weight is limited (++). Further studies are required to evaluate the combined effect of CLA and other methods for weight loss as well as studies where men and women are equally represented in the study population.