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Conjugated linoleic acid induces regional-specific decreases in fat mass in a 6 months clinical trial

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In humans the effects of CLA (conjugated linoleic acid) are not well established, because thus far only limited amount of long term clinical trials with high numbers of participants have been conducted. The present study aimed to assess the regional effects of CLA in body composition. Additionally, the safety of CLA was evaluated by monitoring adverse events and all changes in blood safety parameters, and insulin sensitivity using means of euglycemic CLAMP. 118 overweight and obese subjects (BMI 28-32 kg/m²) were randomized into two groups receiving either 3.4g/d CLA-Clarinol or placebo-olive oil for 6 months. Results obtained on the PP population demonstrate a significant reduction in body fat mass by -5.6 % (P=0.004) for the CLA group when compared to the placebo group. Reduction of the fat mass was already observed after 3 months (-0.7 kg, P=0.034) in the CLA supplemented group, and the reduction was located in the legs and the trunk of women whereas changes in men occurred essentially in the trunk. Waist/Hip ratio also decreased in the CLA supplemented group (-0.024, P=0.017). Body weight and BMI reduced relative to placebo (-1.5 kg and -0.6, respectively). Insulin sensitivity was not adversely affected. In conclusion: this study shows that CLA supplementation for 6 months in healthy, overweight and obese adults affected body fat mass in specific regions of the body and was well tolerated.