

CLA may aid weight loss in diabetic women

By Stephen Daniells, 10-Jul-2009

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Following 16 weeks of supplementation, [CLA](#) was found to reduce body mass index (BMI) by about half a point, total body fat by 3.2 per cent, and fat tissue weight by about 1.4 kg (3 pounds), according to findings of 36-week randomised, double-blind, crossover study.

“In the present study, we observed a significant reduction of BMI with 6.4 g CLA supplementation per day,” wrote the researchers, led by Professor Martha Belury from Ohio State University.

“Because BMI had not yet reached a plateau, it is possible that further reductions in BMI are achievable with a longer length of supplementation. The reduced BMI found in our study supports other studies, which have shown weight loss by CLA.”

The new study, published on-line ahead of print in the *American Journal of Clinical Nutrition*, was sponsored by Cognis which provided the Tonalin CLA, derived from natural safflower oil, and an unrestricted grant.

Furthermore, when the women were crossed over and asked to consume the same dose of safflower oil, rich in omega-6 linoleic acid, a reduction in the weight of trunk fat tissue by about 6 per cent, and an increase in lean tissue of about 1.5 kg were observed.

“This study is the first to show that such a modest amount of a linoleic acid-rich oil may have a profound effect on body composition in women,” wrote the researchers.

The BMI levels of the women taking CLA dropped on average by about half a point, and their total body fat decreased by an average of 3.2 percent, reducing the weight of the fat tissue by an average of between 2.3 pounds and 3.5 pounds.

Over 800,000 new cases of type-2 [diabetes](#) are diagnosed every year in the United States alone. Obesity is a major contributing factor to the development of type-2 diabetes.

“Making this subtle change in the intake of high-quality dietary fats in an effort to alter body composition is both achievable and affordable to postmenopausal

women in the United States who are managing the difficult combination of obesity and diabetes," said Belury.

Study details

The Ohio State researchers recruited 55 obese and menopausal female diabetics, 35 of whom completed the study, and assigned them to receive either [safflower oil](#) or CLA for 16 weeks, followed by a four-week washout period, and then a cross-over to the next 16-week supplementation period began.

At the end of the study, the researchers noted that CLA supplementation reduced body weight, BMI and total adipose mass without altering lean mass. No changes to markers of inflammation and insulin resistance were observed, they added.

"The CLA-induced weight loss in our study can be attributed to the reduction of adipose tissue mass since a change in lean mass was not observed. Importantly, the adipose-lowering effect of CLA occurred without a change in lean tissue mass, which is particularly significant because postmenopausal women are at risk for losing lean tissue mass," said Belury.

The safflower oil phase did not affect total body fat readings, but improvements in the weight of trunk fat tissue were observed, as was an increase in muscle tissue. Moreover, the safflower oil was associated with reduced fasting blood sugar levels.

"Lowering fasting glucose is important for these women. The overall effect in just 16 weeks wasn't bringing them back to normal, but safflower oil still improved it significantly," explained Belury.

Welcome results

The study was welcomed by Cognis, supplier of the Tonalin CLA used in the study.

"This trial adds to the totality of evidence and confirms the results of more than a dozen clinical studies demonstrating the fat-loss benefits of Tonalin CLA in lean, overweight or obese people," said Doris Bell, Ph.D., senior research platform manager at Cognis and a co-author of the study.

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"Comparison of dietary conjugated linoleic acid with safflower oil on body composition in obese postmenopausal women with type 2 diabetes mellitus"

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