

Pure CLA: Conjugated Linoleic Acid



Clinical Applications

- Supports Healthy Body Composition*
- May Help Decrease Catabolic Effect of Training on Muscle Protein*
- May Support the Body's Normal Response to Inflammation*

Pure CLA: Conjugated Linoleic Acid is a patented form of conjugated linoleic acid (CLA). The yield of CLA is at least 78%, providing 1.56 g of pure CLA per serving. Animal and human studies suggest that CLA may reduce body fat and help maintain healthy body composition and lean muscle mass. Pure CLA: Conjugated Linoleic Acid is guaranteed to provide the highest levels of pure CLA and contains those isomers that are most commonly associated with positive health benefits. While CLA in the diet is found primarily in dairy products and beef fat, Pure CLA: Conjugated Linoleic Acid is derived from pure, non-GMO safflower oil.*

All Merrikh Medical Formulas Meet or Exceed cGMP Quality Standards

Discussion

Conjugated linoleic acid (CLA) is a fatty acid found in small amounts in the human diet and can amount to an estimated average intake of 0.35-0.43 g CLA per day.^[1] Research using higher doses of CLA (via supplementation) suggests that it reduces body fat in a dose-related manner. A 2007 meta-analysis of randomized, double-blind, placebo-controlled (RDBPC) human trials revealed that a mean dose of 3.2 g CLA per day produced modest fat loss in human subjects.^[2] Four capsules of Pure CLA: Conjugated Linoleic Acid provides 3.12 g of CLA in a 50:50 ratio of cis-9,trans-11 (c9,t11) and trans-10,cis-12 (t10,c12) isomers, the composition commonly used in clinical studies. Though c9,t11 is the principal CLA isomer found in food, t10,c12 appears to specifically affect fat cells by inhibiting lipoprotein lipase and stearoyl-CoA desaturase, resulting in reduced uptake of lipids into adipocytes.^[3]

A three-month RDBPC study of 60 overweight or obese volunteers was conducted utilizing various doses of CLA. A significantly higher reduction in body fat mass (BFM) was seen in all CLA groups compared to placebo. However, no further reduction in BFM occurred with doses >3.4 g/day.^[4] A six-month clinical trial suggested that fat loss from CLA supplementation occurred primarily in the abdominal area and legs of females and in the abdomen of males without specific diet or exercise efforts. No adverse effects on blood parameters or insulin sensitivity were observed.^[5] In 2004, a long-term RDBPC study was performed in healthy, overweight subjects. After 12 months, BFM was significantly reduced in subjects receiving CLA (50:50 ratio of c9,t11 and t10,c12) in both triacylglycerol and free fatty acid form when compared to placebo. Statistical significance was observed as early as six months and increased as the study progressed. Lean body mass (LBM) was significantly higher in the free fatty acid form of CLA (the form in Pure CLA: Conjugated Linoleic Acid) when compared to placebo; LBM in the triacylglycerol CLA supplemented group did not differ from placebo.^[6] A 12-month extension study suggested that long-term CLA supplementation decreased BFM, was well tolerated, and helped maintain reductions in body fat and weight over time.^[7]

Interestingly, CLA supplementation was found to decrease body fat percentage even in normal weight subjects. Without changing diet, calorie intake, or lifestyle, the group consuming 2.4 g CLA in an RDBPC study experienced a decrease in body fat from 21.3 to 17% (representative of a 15-20% reduction in fat but no change in weight) while the placebo group experienced an increase in body fat.^[8,9] In fact, when calories are restricted by more than 200 per day, hypocaloric intake appears to negate the effects of CLA on fat loss.^[10] Although the mechanism of action of CLA is not completely understood in humans, animal studies suggest that CLA upregulates gene expression of mitochondrial uncoupling proteins and lipid metabolizing proteins. These modifications ultimately contribute to reduced fat mass and increased LBM. CLA affects peroxisome proliferator-activated receptors as well. These nuclear receptors are found to regulate metabolic processes in the cell.^[11]

A seven-week, randomized, placebo-controlled, crossover study addressing the effects of 5 g/day of CLA on muscle resistance training suggested that the CLA group had a significant increase in lean tissue mass, a significant decrease in fat mass, and a "lessening of the catabolic effect of training on muscle protein."^[12] A study of 44 healthy young women suggested that supplementing with 3.6 g of CLA alone or with exercise helped maintain healthy glucose metabolism as well.^[13]

Research on the effects of CLA on the body's normal response to inflammation suggests a positive effect on cytokine balance (increased anti-inflammatory cytokines and decreased proinflammatory cytokines). CLA is believed to inhibit COX-2 enzymes and the synthesis of proinflammatory prostaglandins.^[14,15] Supplementation with 2.5 g of CLA for three months produced statistically significant test results that reflected a decrease in joint discomfort and stiffness. When combined with alpha-tocopherol, supplementation with CLA produced a significant decrease in erythrocyte sedimentation rate (ESR).^[16]

***These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.**



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Pure CLA: Conjugated Linoleic Acid



Supplement Facts

Serving Size: 2 Softgels
Servings Per Container: 60

	Amount Per Serving	%Daily Value†
Calories	20	
Calories from Fat	20	
Total Fat	2 g	3%
Conjugated Linoleic Acid (CLA)	1.56 g	**

** Daily Value not established.

†Percent Daily Values are based on a 2,000 calorie diet.

Other Ingredients: Gelatin, glycerin, caramel, purified water, and mixed natural tocopherols.

Directions

Take one to two softgels twice daily with food, or as directed by your healthcare practitioner.

Children and pregnant or lactating women should consult their healthcare practitioner prior to use. Do not use if tamper seal is broken.

References

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Does Not Contain

Wheat, gluten, corn, yeast, soy protein, dairy products, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners, or preservatives.

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