

Flaxseed Fibers Suppress Postprandial Lipemia and Appetite

Source: *Nutrition, Metabolism and Cardiovascular Disease*

Flaxseed oil is well known as one of the best sources of the essential fatty acids. It contains approximately 50-60% of the omega-3 essential fatty acid known as linolenic acid or alpha-linolenic acid and roughly 18-20% of the omega-6 essential fatty acid known as linoleic acid. Although flaxseed oil contains ample amounts of both essential fatty acids, its true importance is due to the fact that it is nature's richest source of linolenic acid, which is frequently deficient in American diets. The essential fatty acids in flaxseed play a role in a wide range of health conditions.

Cardiovascular disease or heart disease is a class of diseases that involve the heart or blood vessels (arteries and veins). There are several risk factors for cardiovascular disease that are essentially immutable. These are older age, male gender, and a family history of CVD. Additionally, three major risk factors identified include cigarette smoking, dyslipidemia (high cholesterol), and hypertension. Other identified factors associated with increased risk for cardiovascular disease include physical inactivity, sleep problems, diabetes mellitus, rheumatoid arthritis, obesity, excessive intake of alcohol, thrombotic and fibrinolytic factors, elevated homocysteine levels, certain infections and inflammation, exogenously administered estrogens and androgens, certain psychosocial factors, increased fasting glucose, and frequency of migraines. The synergism of the presence of multiple risk factors must also be considered.

Researchers from the University of Copenhagen, Denmark investigated the effectiveness of flaxseed fiber consumption on suppressing postprandial lipemia and reducing appetite. They enrolled 18 men with an average age of 27 to participate in this double-blind randomized crossover study. The men consumed meals supplemented with 1.4 or 2.4 grams of whole flaxseeds, or 2.4 or 3.5 grams from flaxseed dietary fiber. The results revealed blood levels of triacylglycerols were significantly reduced in the highest dose of flaxseed fiber group in comparison to the control group. Also, higher ratings of satiety and fullness were seen following the high dose fiber group compared to the control group. These findings suggest that flaxseed dietary fiber may moderate several risk factors for cardiovascular disease and regulate appetite.¹

1 Kristensen M, Savorani F, Christensen S, et al. Flaxseed dietary fibers suppress postprandial lipemia and appetite sensation in young men. *Nutr Metab Cardiovasc Dis*. 2011.