

Effect of raw and heated flaxseed (*Linum usitatissimum* L.) on blood lipid profiles in rats.

ABSTRACT

Flaxseed is a nutrient rich seed and lipid profiles improving effect of it has long been studied. Effect of heating as a part of food processing on its beneficial characteristics is not clarified in literature. This study aims to provide complementary information on effect of different dosages of raw and heated flaxseed on lipid profiles. Sprague Dawley rats were fed with 10%, 20% or 30% of either raw or heated flaxseed in the basal diet for 30 days. Total cholesterol significantly reduced in all flaxseed groups and high density lipoprotein cholesterol significantly increased in 20% raw and 30% raw and heated flaxseed groups. Significant reduction of low density lipoprotein cholesterol only observed in 30% raw flaxseed groups. It is concluded that 30 days consumption of flaxseed may significantly reduce total cholesterol and increase high density lipoprotein cholesterol in blood. Oven heating may not have significant effect on lipid profile improving effect of flaxseed.

Keyword: Blood lipid profiles; Flaxseed; Heating.