↓ Full text

Effect of garlic and fish-oil supplementation on serum lipid and lipoprotein concentrations in hypercholesterolemic men.

Randomized controlled trial

Adler AJ, et al. Am J Clin Nutr. 1997.
Show full citation

Abstract

This study examined the effects of garlic and fish-oil supplementation (alone and in combination) on fasting serum lipids and lipoproteins in hypercholesterolemic subjects. After an initial run-in phase, 50 male subjects with moderate hypercholesterolemia were randomly assigned for 12 wk to one of four groups: 1) 900 mg garlic placebo/d + 12 g oil placebo/d; 2) 900 mg garlic/d + 12 g oil placebo/d; 3) 900 mg garlic placebo/d + 12 g fish oil/d, providing 3.6 g n-3 fatty acids/d; and 4) 900 mg garlic/d + 12 g fish oil/d. In the placebo group, mean serum total cholesterol, low-density-lipoprotein cholesterol (LDL-C), and triacylglycerols were not significantly changed in relation to baseline. Mean group total cholesterol concentrations were significantly lower with garlic+fish oil (-12.2%) and with garlic (-11.5%) after 12 wk but not with fish oil alone. Mean LDL-C concentrations were reduced with garlic+fish oil (-9.5%) and with garlic (-14.2%) but were raised with fish oil (+8.5%). Mean triacylglycerol

Similar articles

Normal subjects consuming physiological levels of 18:3(n-3) and 20:5(n-3) from flaxseed or fish oils have characteristic differences in plasma lipid and lipoprotein fatty acid levels.
Randomized controlled trial
Layne KS, et al. J Nutr. 1996.

Low doses of eicosapentaenoic acid and docosahexaenoic acid from fish oil dose-dependently decrease serum triglyceride concentrations in the presence of plant sterols in hypercholesterolemic men and women.
Randomized controlled trial
Ras RT, et al. J Nutr. 2014.

Garlic powder, effect on plasma lipids, postprandial lipemia, low-density lipoprotein particle size, high-density lipoprotein subclass distribution and lipoprotein(a).
Randomized controlled trial
Superko HR, et al. J

concentrations were reduced with garlic+fish oil (-34.3%) and fish oil alone (-37.3%). The garlic groups (with and without fish oil) had significantly lower ratios of total cholesterol to high-density-lipoprotein cholesterol (HDL-C) and LDL-C to HDL-C. In summary, garlic supplementation significantly decreased both total cholesterol and LDL-C whereas fish-oil supplementation significantly decreased triacylglycerol concentrations and increased LDL-C concentrations in hypercholesterolemic men. The combination of garlic and fish oil reversed the moderate fish-oil-induced rise in LDL-C. Coadministration of garlic with fish oil was well-tolerated and had a beneficial effect on serum lipid and lipoprotein concentrations by providing a combined lowering of total cholesterol, LDL-C, and triacylglycerol concentrations as well as the ratios of total cholesterol to HDL-C and LDL-C to HDL-C.

PMID: 9022529 [Indexed for MEDLINE]

Full text

Full text at journal site

Comment in

Am J Clin Nutr. 1997 Feb;65(2):560-1.

Am Coll Cardiol. 2000.

Cholesterol-lowering effect of garlic extracts and organosulfur compounds: human and animal studies.
Review article
Yeh YY, et al. J Nutr. 2001.

Fish oil and cardiovascular disease: lipids and arterial function.
Review article
Nestel PJ, et al. Am J Clin Nutr. 2000.

See all