

# Abstract

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## Efficacy of lipid profiles in prediction of coronary disease.

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**BACKGROUND:** National guidelines in the United States and Europe have stimulated interest in controlling blood lipid levels to prevent CHD. In this review, the efficiency of lipid profiles in predicting CHD has been examined, and total cholesterol, HDL and LDL cholesterol, and triglyceride values have been compared on the basis of 12 to 14 years of surveillance in the Framingham Study.

**FINDINGS:** The average value of total cholesterol and LDL cholesterol in patients who had coronary disease was at or below values that are considered dangerous, which indicates the need for more specific and sensitive lipid profiles. Measurement of LDL cholesterol levels predicted CHD only marginally better than measurement of serum total cholesterol. Measurement of triglyceride levels was the weakest predictor. The total cholesterol to HDL cholesterol ratio was the most efficient predictor both in those with apparently safe and those with abnormal cholesterol values. Measurement of HDL cholesterol was the best single lipid predictor and use of this measurement avoids needlessly alarming or falsely reassuring persons at risk for CHD who have high total cholesterol values.

**CONCLUSION:** Since the risk associated with any serum cholesterol value varies over a 10-fold range depending on coexistent cardiovascular risk factors, these lipid factors must be taken into account in judging the hazards and efficacy of treatment needed. Evidence is available that controlling elevated cholesterol by diet and administration of pharmaceutical agents can reduce the rate of coronary events, slow progression of angiographically visualized lesions, and regress xanthomata.

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