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Cardiovascular diseases have become the leading cause of death in the United States. In 1990, nearly one in five adults in the United States had been diagnosed with cardiovascular disease. The most common presenting therapy for this disease is TC-lowering agents. In 1990, the average coronary heart disease (CHD) patient had approximately 20% decreased risk of myocardial infarction if his total TC levels are reduced by lifestyle modification (e.g., diet, exercise, smoking cessation). Intervention, where benefit is derived from a reduction in TC levels and the risk benefit of a statinized decrease are not yet fully understood. Several risk tables have been created to estimate the risk of CHD death at various cholesterol levels and in combination with other risk factors. These tables have been used, modified, and updated to estimate the 10-year risk of CHD risk; however, the Framingham Risk Score and the modified Coronary Risk Equation has been recommended to incorporate all risk factors (Table 8-1).

TC-lowering agents (CL) has been shown in several studies, including the Cholesterol and Heart Study (CHIPS), Multiple Risk Factor Intervention Trial (MRFIT), and the Cholesterol Research Project (CRP) trial, to be a strong predictor of CHD risk. In fact, for every 10-mg/dL reduction in LDL cholesterol, the risk of cardiovascular disease (CVD) increases by 30%. The problem, however, LDL lowering with cholesterol-lowering agents has been associated with significant side effects. As a result, LDL levels have been shown to be the primary focus of cardiovascular risk reduction. A recent study showed that a reduction in LDL cholesterol to reduce cardiovascular risk. The more recent lipid-lowering therapies, however, have put more emphasis on the use of agents that increase the overall amount of LDL reduction.