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It is well known that cholesterol comes from two sources: diet and heredity. Cholesterol travels around the body in the blood and as a result of built-up amount of cholesterol within the artery wall one can have heart attacks and strokes. There are two types of cholesterol: Bad cholesterol (in medical terms, low-density lipoproteins (LDL)) that is carried from the liver to the body's cells, and good cholesterol (in medical term, high-density lipoproteins (HDL)) that is carried back to the liver.

We developed a mathematical model of cholesterol metabolism under the influence of a cholesterol lowering drug. In this presentation we briefly talk about our modeling strategies, differences in our model from other proposed cholesterol models in the literature, and present some of our preliminary results. (Received September 20, 2007)