Mary is a 58-year-old, slightly overweight woman who had a cholesterol test showing an LDL of 155 and an HDL of 60. Her doctor advised her to follow a low-fat diet and exercise but did not advise any specific drug therapy.

Why are these patients treated differently?

Cholesterol is transported in the body by lipoproteins that have different sizes and densities, which is where we get the terms LDL and HDL. LDL transports most cholesterol in the body, and high levels of LDL directly correlate with a higher risk of coronary heart disease.

This is why you may hear the term “bad cholesterol” when a medical professional talks to you about your lipid profile.

On the other hand, high levels of HDL correlate inversely with risk for coronary heart disease. That is, the higher your HDL, the less your risk for coronary heart disease. HDL seems to be protective because it is responsible for reverse cholesterol transport, which can remove cholesterol from the blood vessels and reduce the risk of blockages in the coronary arteries.

Because high cholesterol levels don’t cause any symptoms by themselves, it is important to get screening lipid profiles periodically. Published guidelines vary slightly, but generally speaking, men should have lipid profiles done by the time they are 35 and at least every five years after that. Women should start getting checked at least by age 45.

In the past, targets for reducing cholesterol were less aggressive than they are now. We have learned recently from clinical trials that aggressive lowering of LDL in patients with heart disease is associated with better patient outcomes compared with more modest goals.

Statins have revolutionized the treatment of hyperlipidemia (high fat levels in the blood) because they are highly effective and generally well tolerated. Management of high cholesterol should always start with a low-fat diet. Drugs are added when the lipid profile stays abnormal despite a good diet.

The National Cholesterol Education Program Adult Treatment Panel has published recommendations on the treatment of high cholesterol (www.nhlbi.nih.gov/guidelines/cholesterol). The management depends on the actual lipid abnormalities found, as well as the overall health of the patient being treated.

So for Harry, considered high risk for coronary heart disease because he is diabetic and has hypertension, the doctor recommends adjusting the doses of his medications until the LDL is below 100 mg/dl.

For Mary, who has no heart disease and no risk factors, plus the favorable finding of a high HDL, diet and exercise alone are sufficient.

Anne Curtis is professor and director of cardiology at USF Health.