

## A Cynical Look at the New Cholesterol Treatment Guidelines

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The American College of Cardiology and the American Heart Association Task Force recently changed their guidelines for cholesterol treatment, upending years of relatively consistent practice based on LDL-cholesterol (LDL-C) and a simple risk assessment. Some say the guidelines depart from the past by emphasizing risk and age, rather than LDL-C, but it still figures prominently in the new guidelines.

The Guidelines: The panel strongly recommends high dose statins for people who have an LDL-C level greater than 70 mg/dl and 1) already have cardiovascular disease, 2) the LDL-C level is over 190 mg/dl, or 3) are diabetic or have a  $\geq 7.5\%$  10-year risk of cardiovascular disease. These groups should all receive high-dose potent statins, designed to reduce LDL-C by more than 50%. Only people with lesser risk should receive “moderate” dose therapy, designed to reduce LDL-C by 30-50%.

We know that statins prevent cardiovascular events at least as much by reducing vascular inflammation as by lowering cholesterol. So it is understandable why the LDL-C threshold for treating high risk people should now be low. Eliminating the old approach to cut-offs of 70, 130, 160 and 190 mg/dl makes some sense. That’s about the only positive thing I have to say about the new guidelines.

The risk calculator at [www.myamericanheart.org/cvriskcalculator](http://www.myamericanheart.org/cvriskcalculator) uses almost the same risk factors we always have, namely age, sex, race, cholesterol, HDL-cholesterol (HDL-C), high systolic blood pressure, diabetes and smoking. Strong family history of vascular disease is left out, in spite of trumping all other risks combined.

This particular calculator has not been tested for accuracy in predicting cardiovascular risk. Applying it to well-studied population groups has resulted in overestimated risk prediction.

The Task Force recommends against statin treatment for those aged older than 75 years unless they already have cardiovascular disease, are on hemodialysis or have heart failure. Apparently the data don’t support cholesterol treatment in those groups, BUT most studies exclude those groups from participating, so of course there is no data. Maybe they figure those people will be dead soon anyway and won’t miss an extra year or two.

The guidelines are based on risk of vascular disease in 10 years, but the calculator only calculates a 10-year risk for people aged 40-79 years. So, if you are 39 years old and have a high cholesterol, you don’t count. The calculator estimates lifetime risk for people 20-59 years old, but that doesn’t figure into the guidelines. In reality, if you don’t get hit by a truck and live long enough, you’ll eventually develop vascular disease of some sort.

They divide race into African-Americans and other, designated as white, probably because the big studies didn’t break out other racial groups for analysis. I seriously doubt that all races and their genetic patterns are created equally with respect to cardiovascular risk. This is a good reason to reconsider family history.

Recommended drugs and doses are based on those used in recent, large studies that arbitrarily picked high doses of certain statins, mostly based on the drug company that funded the trial. Thus the new guidelines ignore older, equally valid studies using alternative medications and dosages. They also ignore the contribution of high triglycerides and low HDL-C, known to predict risk in certain people.

Individual patient tolerance and the potentially interacting medications they take don't have a role in the guidelines. Starting a random patient on a high dose of a potent statin can cause severe muscle, kidney and possibly liver problems. But the Task Force deals with large populations and overall risk, not the suffering of an individual who ends up in a rehab facility for muscles like jelly. If we're dealing with 10 year risk, what's the harm of starting out slow, and gradually increasing dose, to verify tolerance?

The Task Force's recommendations really only apply to Caucasian and African-American people aged 40-75 years who are willing to risk taking high dose statins. ¶