

Can BMI replace blood cholesterol for estimating heart risk?

By ACSH Staff — November 14, 2012



Body mass index (BMI) may provide better accuracy than

cholesterol levels when used in a prediction algorithm to estimate cardiovascular disease risk, [according to a recent Swiss study](#) [1].

Researchers led by David Faeh, MD, MPH, of the University of Zurich, replaced total cholesterol level with BMI in the European SCORE (Systematic Coronary Risk Evaluation) method and found that it resulted in more accurate predictions of 10-year risks of cardiovascular disease across age groups and genders, and better discrimination between high- and low-risk patients.

Furthermore, in a model that included both cholesterol and BMI, only BMI was significantly associated with mortality during follow-up, Faeh and colleagues reported in a research letter published online in the *Archives of Internal Medicine*.

Their data came from almost 18,000 adult men and women who participated in either the National Research Program 1A a community health initiative focused on cardiovascular disease prevention or the Swiss MONICA (Monitoring of Trends and Determinants in Cardiovascular Disease) population survey, a project from the World Health Organization.

This new study could potentially allow for greater use of alternate methods of calculating cardiovascular risk. "The fact that BMI renders blood sampling unnecessary leads to a substantial increase of population-based samples available for cardiovascular disease risk estimation," Faeh and colleagues wrote. In addition, "compared with dyslipidemia screening, screening for obesity has a stronger scientific foundation and is unconditionally recommended," they wrote. "Furthermore, lifestyle changes (diet and physical activity) promoting weight loss or preventing weight gain may improve health more strongly than lipid-lowering treatment."

This study suggests that BMI could be an independent risk factor for cardiovascular disease which contradicts some earlier research. Thus this study must be independently replicated before we begin to change our methods of estimating CVD risk, says ACSH's Dr. Ruth Kava. Perhaps

adding waist circumference, which has been shown to be a real risk factor, to BMI might further improve its predictive power.

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[1] <http://www.medpagetoday.com/Cardiology/Dyslipidemia/35894>