

# Genetic testing does not enhance heart disease risk prediction

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(HealthDay)—Genetic testing is not better at predicting coronary heart

disease risk compared with conventional risk factors, according to a study published in a recent issue of the *Journal of the American Medical Association*.

Jonathan D. Mosley, M.D., Ph.D., from the Vanderbilt University Medical Center in Nashville, Tennessee, and colleagues retrospectively assessed the accuracy of a polygenic risk score at predicting 10-year first coronary heart [disease](#) events among adults aged 45 to 79 years using data from the Atherosclerosis Risk in Communities (ARIC; 4,847 patients) and Multi-Ethnic Study of Atherosclerosis (MESA; 2,390 patients) studies between 1996 and 2015. The predictive accuracy of the polygenic risk score was compared to the performance of the 2013 American College of Cardiology/American Heart Association pooled cohort equations.

The researchers found that the polygenic risk score was associated with 10-year coronary heart disease incidence in both studies (hazard ratio per standard-deviation increment, 1.24 and 1.38 for ARIC and MESA, respectively); however, the addition of the polygenic risk score did not improve the predictive ability of the pooled cohort equations for either study.

"Genetics is an important determinant of familial diseases and a key tool for understanding human biology, and the idea that genetics may also be important for predicting [common diseases](#) has been a source of excitement over the past several years. But as an everyday clinical tool for predicting cardiovascular risk, [human genetics](#) isn't there yet," a coauthor said in a statement. "We should not lose sight of traditional risk factors for assessing risk of cardiovascular disease, counseling about that risk, and strategizing on reducing it."

**More information:** [Abstract/Full Text \(subscription or payment may be required\)](#)

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