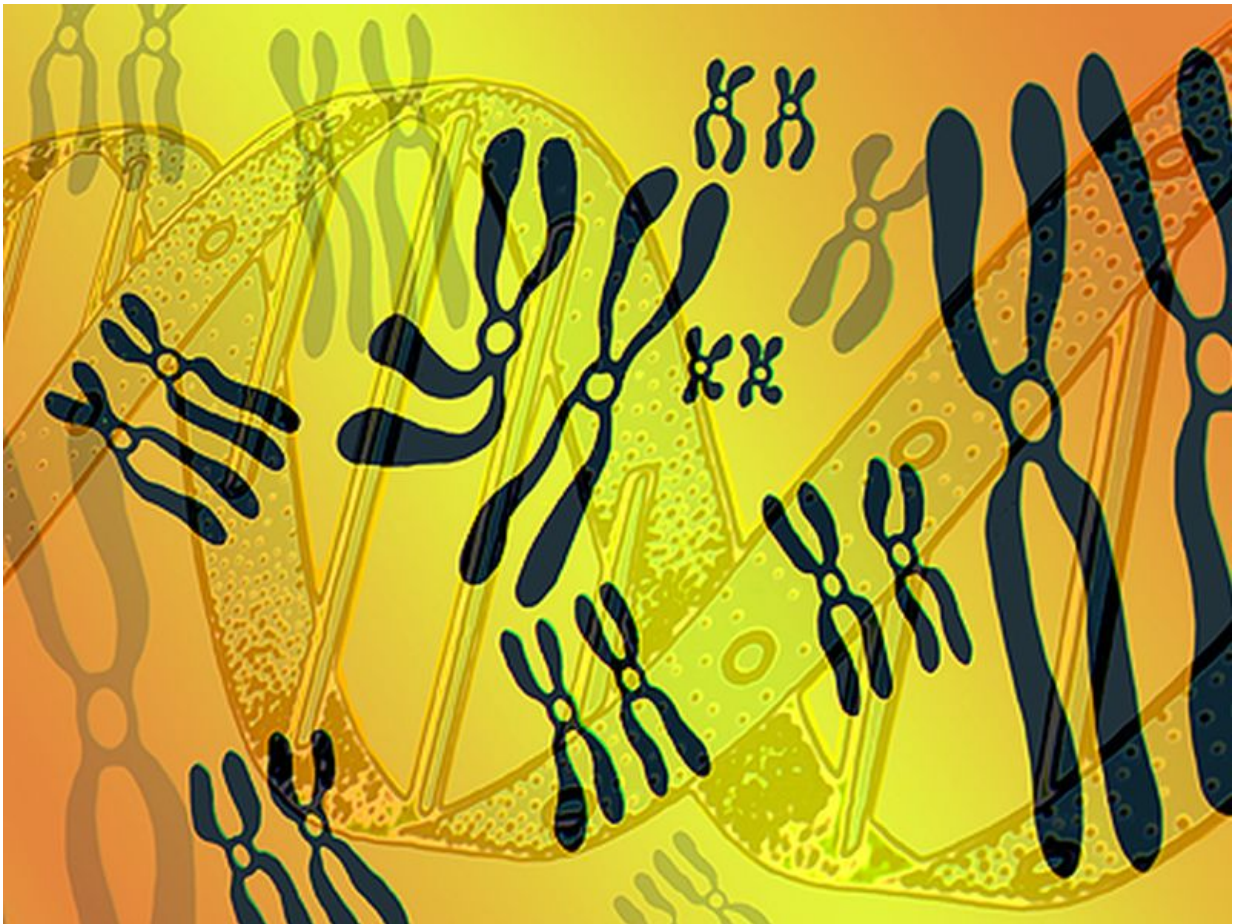


Genetic hyperglycemia raises risk of coronary artery disease

March 27 2017



(HealthDay)—Genetic predisposition to hyperglycemia raises the odds

of coronary artery disease (CAD), independent of type 2 diabetes and other CAD risk factors, according to research published online March 15 in *Diabetes Care*.

Jordi Merino, Ph.D., from Massachusetts General Hospital in Boston, and colleagues conducted a discovery and validation genetic instrumental analysis to test the hypothesis that of all the potential metabolic contributors to type 2 diabetes and its metabolic consequences, genetically driven hyperglycemia alone has an effect on CAD risk. Analysis relied upon summary-level statistics from the largest published meta-analyses of genome-wide association studies for fasting glucose (FG; 133,010 participants free of diabetes) and CAD (63,746 case subjects and 130,681 control subjects).

The researchers found that using an instrumental variable analysis of 12 FG-raising variants, a 1 mmol/L increase in FG revealed an effect-size estimate of 1.43 CAD odds (95 percent confidence interval, 1.14 to 1.79). After excluding variants for heterogeneity and pleiotropic effects on other CAD risk factors, the association remained (odds ratio, 1.33; 95 percent confidence interval, 1.02 to 1.73). The 12 FG-increasing variants did not significantly increase type 2 [diabetes](#) risk (odds ratio, 1.05; 95 percent confidence interval, 0.91 to 1.23), and its prevalence was constant across FG genetic risk score quintiles ($P = 0.72$).

"These findings suggest that modulating glycemia may provide cardiovascular benefit," the authors write.

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

Copyright © 2017 [HealthDay](#). All rights reserved.

Citation: Genetic hyperglycemia raises risk of coronary artery disease (2017, March 27)
retrieved 24 April 2024 from
<https://medicalxpress.com/news/2017-03-genetic-hyperglycemia-coronary-artery-disease.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.