

From: **Genetic Association of Waist-to-Hip Ratio With Cardiometabolic Traits, Type 2 Diabetes, and Coronary Heart Disease**

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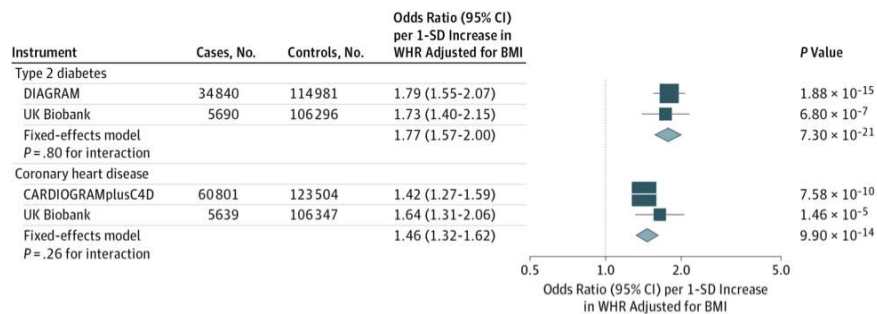


Figure Legend:

Association of 48-SNP Polygenic Risk Score for WHR Adjusted for BMI With Type 2 Diabetes and Coronary Heart Disease Results are standardized to a 1-SD increase in waist-to-hip ratio adjusted for body mass index due to polygenic risk score. Estimates were independently derived in genome-wide association studies (CARDIOGRAMplusC4D for coronary heart disease and DIAGRAM for type 2 diabetes) and the UK Biobank. The threshold of significance was $P < .025$ ($0.05/2 = 0.025$). Size of data markers is inversely proportional to variance of estimate. CARDIOGRAMplusC4D indicates Coronary Artery Disease Genome-Wide Replication and Meta-analysis plus the Coronary Artery Disease Genetics Consortium; DIAGRAM, Diabetes Genetics Replication and Meta-analysis.

Key Points

Question Is genetic evidence consistent with a causal relationship among waist-to-hip ratio adjusted for body mass index (a measure of abdominal adiposity), type 2 diabetes, and coronary heart disease?

Findings In this mendelian randomization study, a polygenic risk score for increased waist-to-hip ratio adjusted for body mass index was significantly associated with adverse cardiometabolic traits and higher risks for both type 2 diabetes and coronary heart disease.

Meaning These results provide evidence supportive of a causal association between abdominal adiposity and the development of type 2 diabetes and coronary heart disease.