Diabetes, insulin resistance adversely affect LV function

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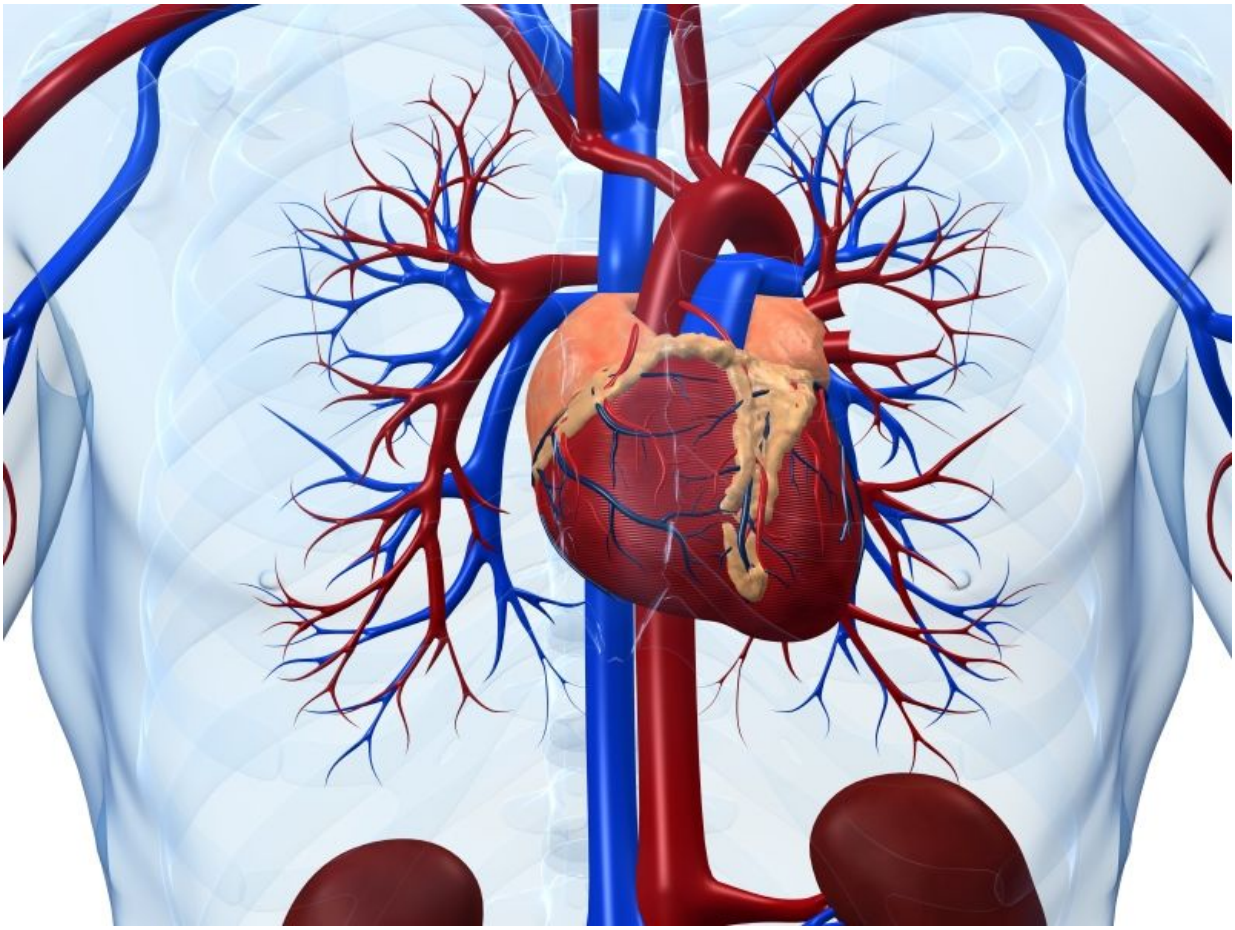

(HealthDay)—Early exposure to diabetes mellitus (DM) or higher

insulin resistance (IR) has an adverse effect on left ventricular (LV) remodeling and function, according to research published online Aug. 17 in *JACC: Cardiovascular Imaging*.

Satoru Kishi, M.D., from Johns Hopkins University in Baltimore, and colleagues describe the correlations for glycemic abnormalities and exposure to trajectories of IR over 25 years with LV remodeling and function. A total of 3,179 participants aged 43 to 55 years from the CARDIA Year-25 examination with information on glucose metabolism were identified and stratified into four groups: normal glucose tolerance (NGT), impaired glucose tolerance (IGT) or impaired fasting glucose (IFG), late DM (diagnosed at year 15 or later), and early DM (diagnosed at year 0 to 15).

The researchers found that, compared with the NGT group, the early DM group had less favorable LV mass, LV ejection fraction, longitudinal systolic strain, and early diastolic strain rate. The odds of having systolic dysfunction were independently increased with being in the early DM group and having high glycated hemoglobin, compared with the NGT group. Depending on obesity level, high IR correlated with worse relative wall thickness, as well as worse longitudinal systolic strain and early diastolic strain rate.

"Cumulative exposure to DM or higher IR beginning in early adulthood adversely impacts LV remodeling and function at middle age," the authors write.

One author disclosed financial ties to Novo Nordisk.

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