

Elevated systolic BP may up risk for valvular heart disease

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(HealthDay)—The cumulative effect of elevated systolic blood pressure

appears to be associated with an increased risk for major valvular heart disease, according to a study published online July 10 in *JAMA Cardiology*.

Milad Nazarzadeh, from the University of Oxford in the United Kingdom, and colleagues evaluated data from the U.K. Biobank (502,602 men and women aged 40 to 96 years at baseline between 2006 and 2010) using Mendelian randomization to examine the association between systolic blood pressure and major valvular heart disease.

The final analysis included 329,237 participants (53.99 percent female; mean age, 56.93 years) with valid genetic data and blood pressure measurements. Among this cohort, the authors report that 3,570 individuals (1.08 percent) had a diagnosis of valvular heart disease (aortic stenosis, 0.45 percent; aortic regurgitation, 0.19 percent; and [mitral regurgitation](#), 0.53 percent). For each genetically associated 20-mm Hg increment in systolic blood pressure, there was an increased risk for [aortic stenosis](#) (odds ratio [OR], 3.26; 95 percent confidence interval [CI], 1.50 to 7.10), aortic regurgitation (OR, 2.59; 95 percent CI, 0.75 to 8.92), and mitral regurgitation (OR, 2.19; 95 percent CI, 1.07 to 4.47). There was no evidence for heterogeneity by type of valvular heart disease ($P = 0.90$). Associations remained robust in sensitivity analyses.

"Lifetime exposure to elevated [systolic blood pressure](#) may be associated with an increased risk of major valvular heart disease, suggesting that blood [pressure](#) lowering might be a useful strategy for prevention of this condition," the authors write.

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