

Depression-heart rate variability link is bidirectional

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(HealthDay)—There is a bidirectional association between depression

and heart rate variability (HRV), according to a study published online May 16 in *JAMA Psychiatry*.

Minxuan Huang, Sc.M., from the Emory University Rollins School of Public Health in Atlanta, and colleagues examined the temporal association between [depression](#) and HRV in a longitudinal study, with baseline assessments from March 2002 to March 2006 (visit 1) and a seven-year follow-up visit (visit 2). A total of 166 twins from the Vietnam Era Twin Registry who served in the U.S. military during the Vietnam War and were discordant for depression at baseline were recruited; the final analytic sample included 146 participants.

The researchers identified consistent associations between visit 1 HRV and visit 2 Beck Depression Inventory (BDI) score across all HRV domains and models. The correlations were not explained by antidepressants or other characteristics of participants. In the opposite pathway, linking visit 1 BDI score with HRV at visit 2, the magnitude of the [correlation](#) was similar; this correlation was mainly explained by antidepressant use. For the path linking visit 1 HRV with visit 2 BDI score, significant correlations were seen in monozygotic and [dizygotic twins](#); the correlations were slightly stronger in dizygotic twins.

"These findings highlight an important role of autonomic nervous system in the risk of depression and contribute new understanding of the mechanisms underlying the comorbidity of depression and cardiovascular disease," the authors write.

More information: [Abstract/Full Text](#)

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