

Mental stress tied to abnormal left atrial electrophysiology

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(HealthDay)—Acute mental stress is associated with abnormal left atrial

electrophysiology, according to a study published online July 20 in the *Journal of Cardiovascular Electrophysiology*.

Wesley T. O'Neal, M.D., M.P.H., from the Emory University School of Medicine in Atlanta, and colleagues examined whether acute [mental stress](#) results in abnormal left atrial electrophysiology in 422 patients with stable [coronary heart disease](#). Patients underwent mental stress testing with a speech task. P-wave terminal force in lead V₁ (PTFV₁) was defined as the duration times the value of the depth of the downward deflection of the P-wave in lead V₁ measured on digital electrocardiograms (ECGs). PTFV₁ ≤ -4,000 μV/ms defined electrocardiographic left atrial abnormality. Mean PTFV₁ values were compared during stress and recovery with those at rest.

The researchers found that PTFV₁ became more negative during mental stress compared with rest (mean change, -348; 95 percent confidence interval, -515 to -182; P

"Acute mental [stress](#) alters left atrial [electrophysiology](#), suggesting that stressful situations promote adverse transient electrical changes to provide the necessary substrate for atrial fibrillation," the authors write.

More information: [Abstract](#)

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