

# QRS width on ECG linked to sudden cardiac arrest in CAD

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For patients with coronary artery disease, QRS width on electrocardiogram and echocardiographic evidence of heart failure are associated with out-of-hospital sudden cardiac arrest, regardless of whether they have a history of previous myocardial infarction, according to a study published in the May 1 issue of *The American Journal of Cardiology*.

(HealthDay) -- For patients with coronary artery disease (CAD), QRS width on electrocardiogram and echocardiographic evidence of heart failure are associated with out-of-hospital sudden cardiac arrest (SCA), regardless of whether they have a history of previous myocardial infarction (MI), according to a study published in the May 1 issue of *The American Journal of Cardiology*.

Miguel E. Lemmert, M.D., of the Maastricht University Medical Center in the Netherlands, and colleagues compared electrocardiographic and clinical characteristics of 87 patients with SCA with CAD and 131 patients with CAD without SCA (with and without previous MI).

Compared with control patients, the researchers found that those with SCA exhibited a higher incidence of left ventricular hypertrophy and/or heart failure. Median left ventricular ejection fractions were 30 percent for patients with SCA with previous MI and 41 percent for those without previous MI. There was a median of 59 days from the last electrocardiographic assessment and SCA. For patients with and without previous MI, longer QRS width on electrocardiogram was the only significant predictor of SCA (odds ratio, 1.032 [P = 0.002] and 1.035 [P = 0.001], respectively).

"Our study shows that QRS width, measured on the electrocardiograms of nonacutely ischemic patients with CAD, plays a significant role preceding SCA," the authors write.

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**More information:** *The American journal of cardiology*, 1 May 2012, v.109(9), pp. 1278-1282. [DOI: 10.1016/j.amjcard.2011.12.020](https://doi.org/10.1016/j.amjcard.2011.12.020)

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