

Diagnostic test helps primary care docs rule out pathologic heart murmur in kids

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Although heart murmur in children is usually harmless (referred to as innocent murmur), in a small number of cases it is symptomatic of cardiac disease (referred to as pathologic murmur).

A new study finds that disappearance of heart murmur while standing reliably rules out pathologic heart murmurs. Using an acoustic-based, non-electronic stethoscope, researchers at two French universities noted heart sound characteristics of 194 consecutive [children](#) referred to pediatric cardiologists for heart murmur, first with patients in the supine (flat on their back) position, and then for at least one minute in the standing position.

After observational data were collected, an echocardiogram was performed to assess the presence or absence of [cardiac anomalies](#) that could explain the murmur. Eight-five percent of children (n=164) referred to a cardiologist for heart murmur did not have [cardiac disease](#).

Thirty children (15 percent) had an abnormal echocardiogram that explained the heart murmur. Of 100 children (51 percent) who had heart murmur while supine but not standing, two had an organic murmur and only one required follow up.

The disappearance of [heart](#) murmur while standing, therefore, excluded a pathologic murmur with a high predictive positive value of 98 percent and a specificity of 93 percent, but with a poor sensitivity of 60 percent.

In an era of highly technical medicine, physical examination should remain the first step in diagnosis, according to the authors. They conclude that the disappearance of [heart murmur](#) in children upon standing is a valuable clinical test to exclude a pathologic cardiac murmur and avoid costly referral to a cardiologist.

More information: Bruno Lefort et al. Auscultation While Standing: A Basic and Reliable Method to Rule Out a Pathologic Heart Murmur in Children, *The Annals of Family Medicine* (2017). [DOI: 10.1370/afm.2105](#)

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