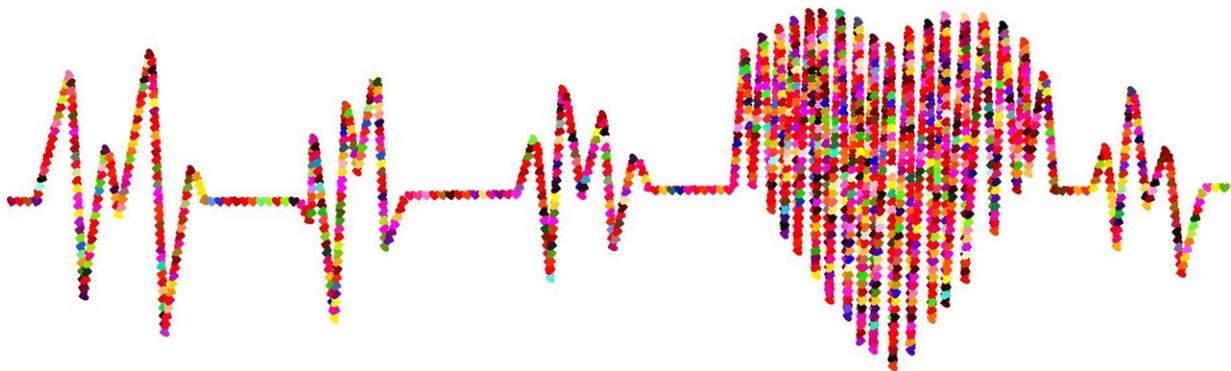


Diagnosing hypertension in children

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Results from a new study provide insights on evaluating high blood pressure in children. The findings appear in an upcoming issue of CJASN.

Diagnostic workup for hypertension in children may include wearing a device that monitors blood pressure over 24 hours. Blood pressure load—the proportion of elevated [blood pressure readings](#) detected over 24 hours—is used in addition to average blood pressure as part of the criteria for diagnosing hypertension in children. Use of blood pressure

load in everyday practice may lead to confusion in scenarios where a child has elevated blood pressure load but normal average blood pressure, however, and it's unclear how a high blood pressure load (with normal average blood pressure) affects long-term health.

To provide insight, Jason Lee, MD (University of California, San Francisco) and his colleagues studied 533 children with [chronic kidney disease](#) who underwent 24-hour blood pressure monitoring, along with tests related to kidney and heart health over several years. Based on 24-hour blood pressure data, the team grouped children as having normal blood pressure, high blood pressure load but without high average blood pressure, and high average blood pressure.

One-quarter of the children had high blood pressure load. Having high blood pressure load by itself was not associated with higher risks of developing [kidney failure](#) or a condition called left [ventricular hypertrophy](#) (thickening of the heart), which can develop in response [high blood pressure](#).

"Our data suggest that the proportion of readings on a 24-hour blood pressure test that are high may not provide additional insight beyond the average blood pressure values surrounding a child's risk for developing cardiac disease or worsening kidney disease," said Dr. Lee. "However, having a high average blood pressure on a 24-hour [blood pressure](#) test does strongly predict a child's cardiac and kidney disease risk."

More information: Jason Lee et al, Prognostic Value of Ambulatory Blood Pressure Load in Pediatric CKD, *Clinical Journal of the American Society of Nephrology* (2020). [DOI: 10.2215/CJN.10130819](https://doi.org/10.2215/CJN.10130819)

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