# [Multicentre reference values for cardiac magnetic resonance imaging derived ventricular size and function for children aged 0-18 years.](https://www.ncbi.nlm.nih.gov/pubmed/31280290)

van der Ven JPG, Sadighy Z, Valsangiacomo Buechel ER, Sarikouch S, Robbers-Visser D, Kellenberger CJ, Kaiser T, Beerbaum P, Boersma E, Helbing WA.

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**Take Home Points:**

* Cardiovascular magnetic resonance (CMR) imaging is now considered the “gold standard” imaging tool for assessment of cardiac volume and function in pediatric cardiac disease.
* This relatively large multicenter study provides reference values from steady-state free precession (SSFP) CMR for biventricular volumes and mass.



***Commentary from Dr. Shaji Menon (Salt Lake City), section editor of Pediatric Cardiology Journal Watch:*** A total of 141 healthy children (68 boys) from three European centres underwent cine-SSFP CMR imaging. Cardiac structures were manually contoured for end-diastolic and end-systolic phases in the short-axis orientation according to current standardized CMR post-processing guidelines. Volumes and masses were derived from these contours. Age-related reference curves were constructed using the lambda mu sigma method. Median age was 12.7 years (range 0.6–18.5).









