# [Non-invasive Hemodynamic CMR Parameters Predicting Maximal Exercise Capacity in 54 Patients with Ebstein's Anomaly.](https://www.ncbi.nlm.nih.gov/pubmed/30726509)

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**Take Home Points**

* Exercise capacity is used to prognosticate in patients with Ebstein’s anomaly (EA) and cardiac magnetic resonance (CMR) is used to assess volumetric and functional parameters
* Functional parameters measured by CMR have been shown to correlate with exercise capacity and can be used in follow-up for patients with EA, possibly to predict the need for surgical intervention prior to development of symptoms



**Comment from Dr. Shelby White (Tucson AZ), section editor of Pediatric Cardiology Journal Watch:** Ebstein’s anomaly (EA) results in volume overload and dysfunction of the right ventricle due to tricuspid regurgitation and atrialization of the ventricle. Exercise capacity is used as a prognostic variable, specifically % predicted peak oxygen uptake (peak VO2%), for event free survival in EA. CMR is used for right ventricular assessment in congenital heart disease, this study sought to evaluate variables assessed by CMR and their correlation to peak VO2%.

As seen in table 4, the majority of the parameters that correlated significantly with functional status as determined by peak VO2% were physiologic parameters rather than volumetric measurements. These parameters which influence cardiac output may be followed over time to predict a decline in function in patients with EA.

