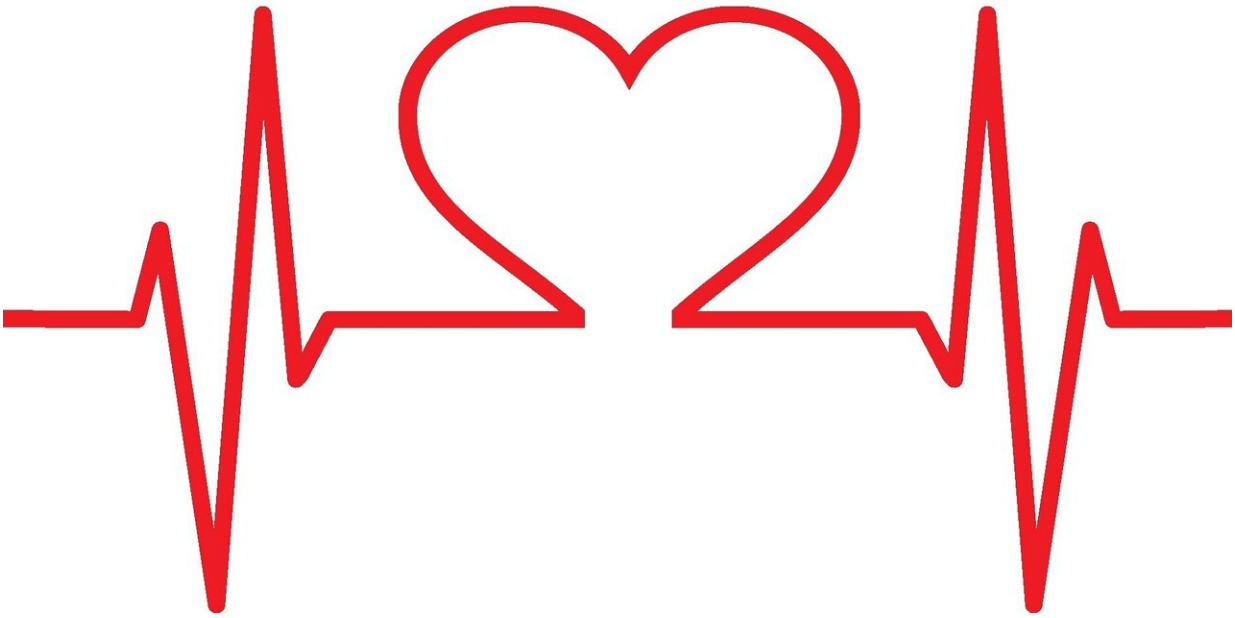
Cardiac dysfunction in Duchenne's

April 5 2019, by Leigh Macmillan



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Duchenne muscular dystrophy (DMD) is a severe muscle disease that causes progressive muscle weakening and degeneration.

Cardiomyopathy is the leading cause of death in DMD, but standard markers of heart failure are poor indicators of disease. Determining factors involved in DMD cardiomyopathy could identify novel biomarkers to follow disease progression and as targets for drug therapy.

DMD cardiomyopathy appears to result from progressive myocardial

fibrosis, or scar formation. Jonathan Soslow, MD, MSCI, and colleagues explored a role for proteins called MMPs and TIMPs that regulate the extracellular matrix—the connective tissue between cells.

They found elevated blood levels of three MMPs in patients with DMD compared to controls. One of these, MMP7, was higher in DMD patients with cardiac dysfunction as determined by cardiac MRI.

The findings, reported in the *Journal of Cardiac Failure*, suggest a role for MMP7 in DMD myocardial fibrosis and support further study of MMP7 as a potential biomarker of cardiovascular disease severity.

More information: Jonathan H, Soslow et al. The Role of Matrix Metalloproteinases and Tissue Inhibitors of Metalloproteinases in Duchenne Muscular Dystrophy Cardiomyopathy, *Journal of Cardiac Failure* (2019). DOI: 10.1016/j.cardfail.2019.02.006

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