

Mitral Valve Procedures Among Highlights of Structural Heart Capabilities at Virtua

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Mitral valve disease is one of the most common valvular conditions in the U.S. Its main manifestations are mitral stenosis or mitral regurgitation. Mitral regurgitation (MR) is the most prevalent form of mitral valve disease in developed countries, affecting approximately 10 percent of people 75 years of age and older than. Left untreated, severe MR is associated with poor outcomes and repeat hospitalizations due to congestive heart failure, new-onset atrial fibrillation, and pulmonary hypertension.

Mitral regurgitation is, in turn, categorized into two broad categories: primary and secondary MR. The most common etiology of secondary MR is as a sequela of coronary artery disease that causes dysfunction of the left ventricle and thereby affects the mitral valve apparatus. Primary MR is due to a dysfunction of the mitral valve leaflets in some way, or due to loss of leaflet coaptation from a dilated mitral annulus.

The majority of primary MR is repairable, either surgically or endovascularly. The Structural Heart team at Virtua has special focus and achievement in mitral valve disease, including as an early implementer of transcatheter mitral valve replacement (TMVR). In 2019, the team performed [the first TMVR in a pregnant woman](#). For several years, we have also been using a [mitral valve clip to nonsurgically correct mitral valve leaflet coaptation in the treatment of MR](#).

Virtua's Structural Heart team offers the full complement of valve treatments, as well as heart-wall and chamber-defect procedures, the latter of which can also sometimes be performed by catheter-based interventions. Such less-invasive structural heart procedures can be especially important for patients who are not candidates for surgery. In addition, conducting operations in our hybrid laboratory permits us to switch from a catheter-based procedure to an open surgical procedure, if and as necessary, in the same room with all equipment and staff available and no need to move the patient.

In the last year, we have performed more than 65 procedures on mitral valves. Our multidisciplinary Structural Heart team is involved with the work-up and



A valve that the Structural Heart team uses for transcatheter aortic valve replacement (TAVR) has been adapted and approved for transcatheter valve-in-valve replacement of the mitral valve, a procedure in which the replacement valve pushes the native valve leaflets to the side when placed and immediately takes over their function.



Cutaway animation image shows the MitraClip after catheter-based placement.

diagnosis, as well as procedure recommendations for all patients with valvular heart disease.