

UVA Advanced Cardiac Valve Center



Advanced Care

UVA Advanced Cardiac Valve Center is one of only a few sites in the United States offering the full spectrum of options for repairing and replacing cardiac valves. We're at the forefront of innovation in heart valve disease, performing 450 open and minimally invasive valve surgeries each year, with superior results. UVA has maintained a prestigious three-star rating for aortic valve replacement from the Society of Thoracic Surgeons since 2009.

Our multidisciplinary team of valve experts evaluates each individual case to determine the approach best suited to the patient. Our doctors also work closely with referring physicians to select the best course of treatment. Patients can be seen within one week of referral.

Conditions Treated

- Bicuspid
- Stenosis
- Regurgitation
- Endocarditis

Available Treatments

UVA Advanced Cardiac Valve Center offers the full complement of treatment options available for heart valve disease, including:

- Percutaneous mitral valve repair (MitraClip®)
- Transcatheter aortic valve replacement (TAVR)

- Percutaneous pulmonary valve implantation
- Aortic valve replacement
- Minimally invasive valve repair (mini valve)
- Open heart surgery
- Repeat or corrective sternotomy

Mini Valve

Rather than fully opening the chest, a minimally invasive aortic valve replacement is performed through a smaller partial incision in the sternum. To replace or repair a mitral or tricuspid valve, a 2- to 3-inch incision in the right chest allows access to the valves between the ribs without breaking any bones.

The majority of patients with an isolated valve disease are candidates for this minimally invasive valve surgery, in addition to patients with more complicated conditions. The mini valve approach offers the following benefits:

- Faster recovery
- Shorter hospital stay (as few as 3-4 days)
- Reduced risk of atrial fibrillation
- Lower risk of blood transfusion
- Less scarring

A leader in the field, UVA Advanced Cardiac Valve Center serves as a training site for minimally invasive valve repair for surgeons across the country.

MitraClip®

MitraClip is an effective treatment for patients with severe degenerative mitral regurgitation who are at prohibitive risk for open heart surgery.

We were among the first centers in the country to perform MitraClip insertion to repair mitral regurgitation. UVA was a MitraClip clinical trial leader and our surgeons are recognized as leaders in performing device insertion.

TAVR

At the American College of Cardiology Annual Scientific Session, researchers reported that hospitals that perform a high volume of transcatheter aortic valve replacement (TAVR) procedures have better outcomes. This report is based on an observational study of more than 40,000 patients on the Transcatheter Valve Therapy (TVT) registry.

The study evaluated how many TAVR procedures were performed at nearly 400 U.S. hospitals and how often patients experienced death, vascular complications, bleeding or stroke following the procedure. The result: a statistically significant association between higher volume and reduced mortality.

The UVA team has been performing TAVR since it was first introduced in 2009, as one of 26 U.S. sites selected to participate in the initial PARTNER trial. Since that time, UVA has completed nearly 400 TAVR procedures..

Research

UVA has a long history of participation in valve studies and continues to push for safer approaches and ways to bring the latest technology to more patients. As one of eight accredited core members of the Cardiothoracic Surgical Trials Network (CTSN), sponsored by the National Institutes of Health/National Heart Lung and Blood Institute, UVA researchers are involved in high-profile clinical trials that directly impact the way we treat cardiovascular disease nationwide.

Clinical Trials

We invite referring providers to consider enrolling patients with heart valve disease in one of our clinical trials. Currently enrolling trials include:

- **Transcatheter Aortic Valve Replacement Study for Adults With Severe Aortic Stenosis Who Are at Low Surgical Risk for Traditional Open Surgical Aortic Valve Replacement (IRB 18854)**

The purpose of this study is to establish the safety and effectiveness of an investigational transcatheter heart valve in patients with severe calcific aortic stenosis who are at low operative risk for standard aortic valve replacement. The randomized trial will follow participating subjects for up to 10 years postprocedure to evaluate outcomes, including cost and quality of life assessments.

UVA Principal Investigator: Gorav Ailawadi, MD

Contact: Rachel Simon, RN, BSN

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- **Research Study for Men and Women at Least 18 Years of Age That Will Be Receiving a Biventricular ICD (IRB 13369)**

The purpose of this study is to see if doing a cardiac magnetic resonance (CMR) imaging test before the cardiac resynchronization therapy (CRT) procedure will increase the chances that patients will feel better after the procedure, as well as predict whether they will feel better. Study will require a brief screening visit (30-45 minutes) followed by a four-hour baseline visit. As part of routine care, patients will have the device checked every three months. For the next two to three years, study personnel will be present at these visits to see if the patient developed any irregular heartbeats or had any hospitalizations due to heart failure.

UVA Principal Investigator: Kenneth Bilchick, MD

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- **Research Study for Adults Who Are Planning Mitral Valve Surgery and Who Have Tricuspid Valve Regurgitation (IRB 18704)**

The purpose of this study is to determine whether repairing the tricuspid valve in patients with mild to moderate tricuspid regurgitation (TR) at the time of planned mitral valve surgery would improve the heart health of those who receive it compared to those who do not. Study involves having your planned mitral valve surgery with the possible repair of your tricuspid valve at the same time. All patients in the study will be followed for a period of five years after surgery with follow-up echocardiograms to see how the heart is doing.

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- **Surgical Implantation of Transcatheter Valve in Native Mitral Annular Calcification (SITRAL Study) (IRB 19773)**

The purpose of this study is to establish safety and feasibility of the Edwards SAPIEN 3 valve in patients with mitral annular calcification (MAC) associated with mitral stenosis and/or mitral regurgitation who are at high risk for mitral valve surgery or deemed inoperable due to the extent of calcification. Patients will be followed clinically for one year after the mitral valve surgery with echocardiograms and cardiac CT scans to see how the valve and heart are functioning.

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- **PARTNER 3 Trial: Aortic Valve-In-Valve (IRB 19733)**

A prospective, single-arm, multicenter study to investigate the safety and effectiveness of the SAPIEN 3 transcatheter heart valve implantation in patients with a failing aortic bioprosthetic valve. After receiving the SAPIEN 3 valve, subjects will be followed clinically for 10 years with echocardiograms to see how the valve and heart are functioning.

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- **Evaluation of Transcatheter Aortic Valve Replacement Compared to Surveillance for Patients With Asymptomatic Severe Aortic Stenosis (EARLY TAVR Trial) (IRB pending; trial expected to open mid-May.)**

Patients who have asymptomatic severe aortic stenosis, and choose to participate in this trial, will be randomized 1:1 to receive TAVR with a SAPIEN 3 valve or to receive optimal clinical surveillance. Patients will be followed clinically for up to 10 years with interval echocardiograms to see how the heart valve and heart are functioning.

UVA Principal Investigator: Gorav Ailawadi, MD

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To refer a patient to UVA Advanced Cardiac Valve Center, call **434.200.8413**.