

UVA Complex Aortic Disease Program



With more than four decades of experience, the Complex Aortic Disease Program at UVA Heart and Vascular Center has a long-standing tradition of treating complex thoracic and abdominal aortic disease.

Our multidisciplinary team offers the full complement of treatment options for aortic disease, including medical evaluation, genetic screening and endovascular or open aortic surgery. Our aortic surgery team has extensive experience with treatment of aortic dissection, thoracoabdominal aneurysms and connective tissue disorders, such as Marfan syndrome.

Our highly specialized team pioneers research and is a leader in multiple national clinical trials. We welcome complex cases.

Conditions Treated

Aortic Aneurysm

- Root
- Ascending
- Arch
- Descending
- Thoracoabdominal
- Abdominal

Valvular Disease

- Bicuspid
- Stenosis
- Regurgitation
- Endocarditis

Aortic Dissection

- Acute
- Chronic
- Traumatic
- Latrogenic

Genetically Triggered Disease

- Marfan syndrome
- Loeys-Dietz syndrome
- Ehlers-Danlos syndrome
- Familial thoracic aortic aneurysms and dissection

Available Treatments

Minimally Invasive Procedures

- Endovascular abdominal aneurysm repair
- Thoracic endovascular aneurysm repair
- Aortic valve repair or replacement
- Ascending aortic aneurysm repair
- Traditional open aortic procedures
- Valve-sparing aortic root replacement
- Thoracic aortic repair (root, ascending, arch and descending)
- Thoracoabdominal aortic repair
- Abdominal aortic repair

Pioneering Procedures

- Transcatheter aortic valve replacement
- Hybrid thoracoabdominal or arch aneurysm repair (combined open and endovascular procedures)
- Transcaval TEVAR/alternative access to thoracic endovascular aneurysm repair

The UVA Difference

Leading Clinical Programs

As a high-volume aortic surgery center, UVA performed more than 2,500 major aortic procedures during the past decade.

Our aortic surgery team works closely with referring physicians to determine the best course of treatment, whether medical management and monitoring or a surgical intervention is appropriate. Our multidisciplinary team of cardiologists, vascular medicine specialists, interventional radiologists and cardiac and vascular surgeons work collaboratively to ensure patients are offered the most appropriate treatment options. A genetic counselor on our team also offers counseling and guidance to patients and their families at high risk for developing aortic disease.

Technologically Advanced Facilities

With four technologically advanced hybrid operating rooms, our treatment facilities allow for less invasive procedures, as well as pioneering hybrid procedures that combine endovascular and complex open surgery.

Aortic Emergencies

Our aortic alert system puts referring physicians in touch with a UVA Aortic Triage Officer (the attending cardiac or vascular surgeon) any time, day or night. For a consult on any aortic emergency, such as an aortic dissection or ruptured aortic abdominal aneurysm, please call the UVA Transfer Center at 844.933.7882 and ask for the Aortic Triage Officer (ATO) on call.

Pioneering Research

Aortic Aneurysm Research Labs at UVA are dedicated to discovery of the mechanisms of aneurysm formation and prevention. Our current research funding totals \$8.2 million, including four NIH grants to study aneurysms.

Clinical Trials

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

- **Research Study for Adults Undergoing Surgery for Thoracic or Abdominal Aneurysm** (IRB 17042)

The purpose of this study is to help researchers learn more about what causes aneurysms to form in the body. Study participation includes allowing researchers to collect some information from medical records, imaging information about the size and location of the aneurysm, and information from the laboratory about kidney function and blood chemistry. During surgery, researchers will collect a piece of the diseased blood vessel that is normally removed and thrown away. This tissue will be kept and examined.

UVA Principal Investigator: Gorav Ailawadi, MD

Contact: Rachel Simon, RN, BSN

Phone: 434.243.0315

- **Research Study for Adults With a Thoracic Aortic Aneurysm** (IRB 18737)

The purpose of this study is to demonstrate the safety and effectiveness of an investigational stent graft system in subjects with a descending thoracic aortic aneurysm (DTAA) who are candidates for endovascular repair. Study will require placement of the investigational device and six study visits over a two-year period.

UVA Principal Investigator: Gilbert Upchurch Jr., MD

Contact: Rachel Simon, RN, BSN

Phone: 434.243.0315

- **Evaluation of an Investigational Thoracic Branch Endoprosthesis in the Treatment of Adults With Lesions of the Aortic Arch and Descending Thoracic Aorta** (IRB 19192)

The purpose of this study is to demonstrate the safety and effectiveness of an investigational stent graft system in subjects with lesions of the aortic arch and descending thoracic aorta. Study will require placement of the investigational device and routine follow-up visits over a five-year period.

UVA Principal Investigator: Gilbert Upchurch Jr., MD

Contact: Rachel Simon, RN, BSN

Phone: 434.243.0315

- **Research Study for Adults Who Need Surgery to Correct an Aortic Dissection** (IRB 16336)

The purpose of this study is to see if the Zenith® Dissection Endovascular System is safe and effective when used in those with complicated, type B aortic dissection.

UVA Principal Investigator: Gilbert Upchurch Jr., MD

Contact: Rachel Simon, RN, BSN

Phone: 434.243.0315

- **Research Study for Adults With Peripheral Artery Disease That Caused Critical Limb Ischemia** (IRB 17685)

The purpose of this research study is to learn which treatment is best for those with CRI.

UVA Principal Investigator: Megan Tracci, MD

Contact: Rachel Simon, RN, BSN

Phone: 434.243.0315

To refer a patient, please call **434.243.1000**.

**Heart and Vascular Center
Cardiac Surgery Clinic
Advanced Cardiac Valve Center
Vascular and Endovascular Surgery Clinic**
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1215 Lee St.
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Cardiovascular Genetics Clinic
UVA Primary Care Center
1221 Lee St.
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Heart and Vascular Center Northridge
UVA Medical Park Northridge
2955 Ivy Rd., Suite 201
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**UVA Specialty Care Augusta
Cardiology and Vascular**
UVA Medical Park Beam
57 Beam Ln., Suite 205
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UVA Specialty Care Culpeper
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University Physicians Orange
661 University Ln., Suite B
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**UVA Primary and Specialty Care
Zion Crossroads**
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