

The Most Comprehensive Treatment for Stroke



At UVA Stroke Center, we provide unparalleled stroke care, 24 hours a day, seven days a week. Each and every day, our rapid response and specialized intervention techniques save lives and preserve brain function.

UVA is proud to be a Comprehensive Stroke Center, the highest level of certification available from The Joint Commission and American Heart Association/American Stroke Association. Comprehensive Stroke Center certification means a hospital is ready 24/7 to deliver the most advanced care for stroke and stroke complications and meets rigorous standards for caring for the most complex stroke cases.

Comprehensive Stroke Centers are the only stroke centers to offer:

- Care for all types of stroke, including hemorrhagic
- 24/7 access to minimally invasive catheter procedures for stroke
- 24/7 on-site neurosurgical availability with ability to perform complex neurovascular procedures, such as brain aneurysm clipping, vascular malformation surgery and carotid endarterectomy
- Dedicated neuroscience intensive care unit
- Accepts patients transferred from primary stroke centers

Conditions Treated

Our expert team of stroke-dedicated physicians and nurses assess the best course of treatment. As soon as the patient's blood pressure levels are within a safe range, we can administer intravenous (IV) tissue plasminogen activator (tPA) to help dissolve the clot and follow up with procedures like an embolectomy.

Our team also specializes in the causes and treatment of stroke in young people, including the investigation of genetic factors and arterial dissection leading to stroke. When coagulation issues play a role, we also partner with experts in UVA Hematology to provide care for these patients.

Ischemic Stroke and Intracranial Hemorrhages

Ischemic stroke is the most common type of stroke, caused by a blocked blood vessel due to clots or atherosclerosis. We offer industry-leading interventional treatments for ischemic stroke like IV tPA and embolectomy, a catheter-guided procedure that removes the clot. We utilize innovative monitoring technology, including multiphase CT, allowing us to target the specific site of the stroke and formulate an individualized care plan.

Intracranial hemorrhages can lead to hemorrhagic stroke, which can also be effectively treated with embolectomy and other surgical procedures.

Subarachnoid Hemorrhage and Cerebral Aneurysm

Ruptured or compromised blood vessels can cause subarachnoid hemorrhage or cerebral aneurysm, damaging the brain. While these conditions are often fatal, rapid treatment in an intensive care setting can limit bleeding and reduce damage to the brain.

Transient Ischemic Stroke

Reduced blood or oxygen to the brain can cause transient ischemic stroke (TIA). TIA places patients at greater risk for ischemic stroke, especially immediately following the transient ischemic incident. We work with TIA patients to quickly decrease the risk of another stroke through lifestyle changes, medication and surgery.

Neurovascular Conditions

We also evaluate and treat neurovascular conditions that can damage the brain, including:

- Arteriovenous malformations (AVM)
- Carotid artery disease

Advanced Care

Facts at a Glance

- 96 percent of patients who arrived at UVA Emergency Department within two hours of last known well and were eligible for treatment with tPA were treated by the three-hour mark
- A board-certified vascular neurologist oversees the acute stroke intervention team during admissions and inpatient stroke service 24/7
- Nerancy Neuroscience Intensive Care Unit (NNICU) staffed 24/7 by a neurointensivist
- Endovascular treatment for stroke available 24/7
- Received 2017 Get With The Guidelines-Stroke Gold Plus Achievement Award; made the Target: Stroke Honor Roll-Elite Plus

UVA Medical Center includes the NNICU, dedicated to the care of neurologic disorders and staffed with a nursing team with expertise in neurologic critical care. Once stabilized and in recovery, patients with stroke and neurologic conditions transition to our neuro step-down unit, which includes heightened monitoring necessary for the continued care of these patients.

Telestroke

A partnership with the UVA Telestroke program provides community hospitals and patients with enhanced patient care and improved economics through advanced emergency department and inpatient neurological support.

Our experienced Telestroke team supports community hospitals by:

- Providing urgent medical assessments to determine the likelihood and severity of a stroke and the best course of treatment, with access to evidence-based treatments, including IV thrombolytics and innovative clot retrieval procedures
- Facilitating bed transfers to the UVA Neuro ICU and Stroke Unit for acute stroke patients when needed and providing ongoing neurologic consultation when transfer is not necessary
- Communicating directly with the patient and their family once the patient is stabilized: explaining the clinical evaluation, treatment options and prognosis and allowing ample time to answer questions and address concerns, reducing the burden on the community hospital staff
- Emergent consultations for all neurological subspecialties
- Providing specialized online and on-site training to help providers and their patients quickly recognize the signs and symptoms of stroke, saving valuable time

UVA has led the development of iTREAT – Improving Treatment with Rapid Evaluation of Acute stroke via mobile Telemedicine – a mobile technology solution being researched that allows EMS personnel to correspond with our Acute Stroke Team in the evaluation and treatment of stroke patients.

Research

Our stroke research and clinical trials focus on three areas: interventional acute stroke clinical trials, Telestroke systems and preventative genetics.

Endovascular Therapy

In a new minimally invasive procedure, called a thrombectomy, UVA interventional neuroradiologists and endovascular neurosurgeons remove the blood clot causing a stroke, ending the stroke as soon as possible.

Subarachnoid Hemorrhage

UVA Neurology stroke research also includes efforts focused on subarachnoid hemorrhage, including an R01 grant from the National Institutes of Health examining the role of immune and inflammatory mechanisms in subarachnoid hemorrhage in a basic science setting, with the aim of providing better interventional treatments.

Preventative Genetics

UVA Neurologists participated in the Stroke Genetics Network (SiGN) study, funded by the National Institutes of Health's National Institute of Neurological Disorders and Stroke. Its findings, published online by The Lancet Neurology, shed light on a single gene linked to all forms of ischemic stroke. SiGN is believed to be the largest and most comprehensive review of the human genome to identify genes that predispose people to this form of stroke.

Cervical Artery Dissection

UVA Neurology has a special focus for patients suffering from carotid and vertebral artery dissection. Cervical Artery Dissection and Ischemic Stroke Patients (CADISP) is the largest registry of patients with cervical artery dissection in the United States and part of an international research consortium studying clinical and genetic associations of this disease. Results of this research recently appeared in Nature Genetics.

SHINE

UVA is the overall leader of the Stroke Hyperglycemia Insulin Network Effort (SHINE), a multicenter randomized controlled trial to determine the best way to control blood glucose levels in hyperglycemic acute ischemic stroke patients. The purpose of this NIH-funded study is to determine if treating patients with diabetes or high blood sugar at the time of their stroke with IV insulin (vs. subcutaneous injection) will lead to better recoveries. Results from this study are expected to change national stroke treatment protocols for this complex patient population.

Our Stroke Team

Members of our multidisciplinary stroke team are on-site on the front lines of care at UVA Medical Center 24 hours a day, seven days a week, receiving and treating patients in the Emergency Department, Stroke Unit and NNICU.

A separate team staffs our Telestroke efforts around the clock, ensuring that when a suspected acute stroke case comes in to one of our partnering Telestroke hospitals, we are ready to provide the exceptional care that patient needs.

Our large team of dedicated, specialty-trained professionals includes:

- Board-certified vascular/stroke neurologists
- Neurocritical care-trained neurologists
- Interventional neurosurgeons
- Interventional neuroradiologists
- Pharmacists
- Stroke-Certified Registered Nurses (SCRN)
- Certified Neuroscience Registered Nurses (CNRN)
- Inpatient and outpatient occupational therapists at UVA-HealthSouth Rehabilitation Hospital

At our Stroke Unit, in our NNICU and in our Division of Diagnostic and Interventional Neuroradiology, our physicians partner with an expert nursing team. These specialized medical professionals are an integral part of our exceptional inpatient stroke care.

Our Stroke Team

Nicole Chiota-McCollum, MD
Vascular and General Neurology

Avery Evans, MD
Interventional Neuroradiology

Mary (Lee) Jensen, MD
Interventional Neuroradiology

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Learn More

For more information about becoming a Telestroke partner hospital, contact our Telestroke team leaders.

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Refer a patient: **800.552.3723**

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