Your Guide to Exceptional Heart Care

SERVICES | TREATMENT | EDUCATION

When it comes to your heart, where you go matters.

PROVIDENCE HEART & VASCULAR INSTITUTE

A Ministry of the Sisters of Charity Health System
We are South Carolina’s Heart Hospital.

In 1938, the Sisters of Charity of St. Augustine mortgaged their Cleveland, Ohio motherhouse to build Providence Hospital in Columbia, S.C. This single extraordinary act of faith has benefited thousands of South Carolinians for more than 70 years.
With the need for cardiovascular expertise growing in South Carolina, Providence Hospitals opened the Heart & Vascular Institute in 1974. The hospital quickly earned national and regional recognition for providing a higher level of heart care than most hospitals.

Today, that pioneering heart service is now the state’s longest running, non-university-based cardiovascular program. The state’s most experienced team of surgeons and cardiologists is dedicated to fighting heart disease and giving patients the tools and education to enjoy more enriched lives. The ultimate compliment to our effort to create a positive, healing environment? A near-perfect 97-percent satisfaction rate from our former patients.

Achieving higher clinical standards. A team of cardiovascular experts. Patient-centered care. A few of the reasons so many South Carolinians choose us as their heart hospital.

**Top-rated in Cardiovascular Surgery**

Leading clinical and consumer organizations have recognized Providence Heart & Vascular Institute for top-quality surgical care. After rigorously comparing performance and outcomes against national standards, The Society of Thoracic Surgeons (STS) awarded Providence Heart & Vascular Institute its highest three-star rating — a level of care achieved by only 15 percent of the nation’s heart hospitals. Providence has secured this three-star rating since the ratings were established in 2006. Based on those results, a leading consumer organization named Providence Heart & Vascular Institute one of the top 50 heart surgery groups in the nation. In fact, Providence Heart & Vascular Institute’s cardiovascular surgical team was the only group in South Carolina to be ranked in the top 50.

**Nationally Accredited Chest Pain Center**

Providence Heart & Vascular Institute’s Chest Pain Center is accredited by the Society of Chest Pain Centers. We have the added distinction of being one of only four South Carolina hospitals accredited to perform percutaneous coronary intervention (PCI), commonly called angioplasty, to treat blocked arteries. It’s a level of care that exceeds the required standards for a Chest Pain Emergency department. Why is this critical? At Providence Heart & Vascular Institute we can provide interventional treatment in our cardiac cath lab rather than transfer you to another facility. That immediate access saves valuable time, which can save heart muscle during a heart attack.
Blue Distinction Centers for Cardiac Care®
Providence Heart & Vascular Institute has been designated a Blue Distinction Center for Cardiac Care by BlueCross BlueShield of South Carolina. This distinction singles out leading institutions that deliver better outcomes in patient care and meet strict clinical criteria developed by national organizations such as the American College of Cardiology and The Society of Thoracic Surgeons.

American Heart Association® Gold Performance Achievement Award
The American Heart Association recognizes select hospitals for their success in the Get With The Guidelines (GWTG) program, which is designed to improve patient care — and save more lives — by holding hospitals to strict guidelines. Providence Heart & Vascular Institute was the first hospital in the state to earn the Gold Performance Achievement Award (Coronary Artery Disease program).

How does Providence Heart & Vascular Institute know what denotes a higher standard of cardiovascular care? Comparative performance measures and standards define the degree to which health care services meet or exceed the expected outcome and how those numbers compare to the national average.

We proudly adhere to rigorous performance and quality measures for cardiovascular care, set forth by national health care organizations. Collection, analysis and utilization of detailed data over time ensures our level of care doesn't merely meet average standards — we consistently perform in the top fifteenth percentile of the nation.

Open-heart Surgery

Last year, Providence Heart & Vascular Institute performed more open-heart surgeries than Lexington Medical Center and Palmetto Richland Hospital combined.

Source: SC DHEC
Providence Heart & Vascular Institute’s incidence of stroke — a potential complication during heart surgery — is one-third of the national average.

Providence Heart & Vascular Institute’s operative mortality is more than 65 percent lower than the national average.

Since 1974, Providence Heart & Vascular Institute teams have performed more than 28,000 open-heart surgeries and over 100,000 cardiac catheterizations. Our time-tested cardiac experience can result in better outcomes than other local and regional hospitals, and even outperforms many national health care providers.

Door-to-Balloon Time

Providence Heart & Vascular Institute’s average door-to-balloon time is 15% faster than the national average.
Source: Mission Lifeline

Catheterization Procedures

Providence Heart & Vascular Institute’s six state-of-the-art cardiac catheterization labs average more than 6,000 cardiac catheterizations each year — more than any other Midlands hospital.
Source: SC ORS 2010
Highly **Satisfied** Patients and Families

**Personalized and Compassionate Care**

The level of individualized care and compassion that we reliably provide scores high marks with patients and their families. As a result, we consistently receive an impressive **97-percent** patient satisfaction score from cardiovascular patients, no doubt because the members of our staff — doctors, nurses, pharmacists and support personnel — strive to create a positive, healing environment that supports the mind, body and spirit.
State-of-the-art Diagnostic Testing

Cardiac Catheterization
Cardiac catheterization is instrumental both in diagnosing heart disease and determining treatment. It also aids in the diagnosis of congestive heart failure and congenital heart conditions. Providence Heart & Vascular Institute routinely performs a range of diagnostic cardiac catheterization procedures as well as angioplasty, which can restore blood flow through blocked or narrowed blood vessels. Intravascular ultrasound (IVUS) also provides a clear image of artery walls to reveal cholesterol and plaque deposits that increase heart attack risk. As appropriate, Providence Heart & Vascular Institute utilizes radial artery access to reduce bleeding risks and improve patient comfort.

Cardiovascular Imaging and Diagnostics
Advanced diagnostic testing is a critical aspect of care. Providence Heart & Vascular Institute employs a diverse range of diagnostic techniques to determine whether or not patients have heart disease and, if so, assess the severity and determine the most effective course of treatment. Services include:

- Carotid artery ultrasound
- Carotid angiography
- Echocardiography
- Electrocardiography
- Electrophysiology
- Extremity angiography
- Fluoroscopy
- Holter monitoring
- Intracoronary ultrasound
- Low radiation studies
- Myocardial biopsy
- Nuclear imaging
- Peripheral vascular diagnostics including:
  - angiogram
  - ankle-brachial pressure index
  - doppler ultrasound
  - magnetic resonance angiography
- Stress testing
- Transesophageal imaging
- Virtual histology coronary imaging

Peripheral Artery Disease (PAD) Diagnostics
Peripheral artery disease refers to the obstruction of the large arteries in the feet and legs. The Providence team utilizes the ankle-brachial pressure index (ABPI) as the first line of study. If the ABPI is abnormal, a Doppler ultrasound or angiography is undertaken. Our highly trained team of technologists, cardiologists and vascular surgeons diagnose and treat this critical condition.
Leading-edge Treatments

Beating-Heart Surgery

Providence Heart & Vascular Institute is one of the nation’s leaders in “beating-heart” or off-pump coronary artery bypass surgery. This innovative technique means that surgery is performed while the heart is beating, minimizing many risks associated with stopping the heart during surgery. Off-pump surgery is proven to result in better preservation of heart function, higher survival rates and faster recovery. In 2010, more than 90 percent of all coronary artery bypass surgeries at Providence Heart & Vascular Institute were performed on beating hearts.
Angioplasty
During percutaneous transluminal coronary angioplasty (PTCA), commonly called angioplasty, an interventional cardiologist uses a hollow flexible tube with an inflatable tip to restore blood flow to a blocked or narrowed heart vessel. Having the credentials to perform angioplasty means that a hospital cardiologist can treat a patient during a heart attack to reduce the amount of permanent damage to the heart. Angioplasty is often followed by placement of a permanent stent to reduce the risk of the artery narrowing again. Restoring blood flow to the artery also often eliminates the need for traditional bypass surgery.

Cardiac Catheterization with PCI
Providence Heart & Vascular Institute has the advanced on-site capabilities required to provide patients with life-saving percutaneous coronary intervention (PCI) that can stop a heart attack already in progress. We perform a range of interventional cardiac catheterization procedures, as well as angioplasty and stent implantation, which can restore blood flow through blocked or narrowed blood vessels. In addition to rotational and directional atherectomy procedures that remove plaque, we provide advanced procedures such as alcohol septal ablation for patients who are poor surgical candidates or want to avoid surgery altogether.
Cardiovascular and Thoracic Surgery

Providence Heart & Vascular Institute is a long-time leader in heart, artery and lung surgery. Our cardiovascular surgeons have performed more than 28,000 open-heart procedures since opening in 1974, and currently perform more than any other hospital in the state. Those years of surgical expertise add up to better outcomes and results for our patients.

At Providence, you have access to an extensive staff of subspecialists highly attuned to the nuances of heart surgery. Lung cancer patients can also gain insight from the South Carolina Chest Tumor Consortium (providencetumorboard.com), a multidisciplinary group of physicians who help lung cancer patients receive the most comprehensive, individualized, timely treatment plans available. We’re reliably among the first to bring advanced technology and surgical techniques to South Carolina.

Surgical services include:

Heart surgery
- Beating-heart/off-pump coronary artery bypass
- Coronary artery bypass graft surgery (CABG)
- Transmyocardial laser revascularization (TMR)
- Atrial septal defect surgical closure
- Heart valve surgery
  - Minimally invasive aortic valve replacement
  - Minimally invasive mitral repair or replacement
  - Minimally invasive tricuspid valve surgery

Vascular surgery
- Abdominal aortic aneurysm (AAA) surgery
- Abdominal and thoracic minimally invasive endovascular stent repair
- Carotid endarterectomy
- Surgical revascularization of lower extremity bypass
- Thoracic-aortic aneurysm repair

Arrhythmia surgery
- Biventricular assist device placement
- Internal cardiac defibrillator (ICD) placement
- Laser lead revision and extraction
- Minimally invasive atrial fibrillation ablation (Maze)
- Pacemaker placement

Lung surgery
- Pneumonectomy
- Video-assisted minimally invasive lung resection

Cardiac Anesthesiology

With additional training in heart and lung function, these specialized physicians manage the anesthesia-related aspects of surgical care including open-heart, lung and other vascular surgeries. In addition, cardiac anesthesiologists manage patient care before, during and after surgery as well as in the cardiothoracic intensive care unit. They utilize transesophageal echocardiography to provide surgical teams with detailed imaging and data of heart and valve structure and function. This information helps guide surgical and medical decision making during open-heart surgery.
Leading-edge Treatments

Chest Pain Center with PCI
Providence Hospitals’ Chest Pain Center works hand-in-hand with the Heart & Vascular Institute to provide rapid evaluation of chest pain and heart attacks. The on-site medical team receives information during ground or air EMS transport so preparations are under way before the patient arrives in the Emergency department. With catheterization labs staffed 24 hours a day, 365 days a year, our team of heart experts is always ready. In fact, Providence has some of the best patient outcomes in the nation for survival after highly dangerous STEMI heart attacks.

Providence Hospitals’ Chest Pain Center has the coveted Society of Chest Pain Centers Accreditation with PCI designation, a designation that grants the use of angioplasty as a primary intervention strategy. In fact, Providence Hospitals is the first hospital in the Midlands where the emergency medical technicians take the patient directly to the cardiac catheterization lab.

Coronary and Carotid Stenting
During angioplasty, a small, metal-mesh tube stent can be placed at the site of a blockage to sustain collapsed or weak artery walls. Stents remain permanently in an artery to prevent re-closure.

The Providence Heart & Vascular Institute was the first hospital in the Midlands to offer carotid stenting.

Cardiac Arrhythmia Management
Electrophysiology — the study, diagnosis and management of the heart’s complex movement and electrical function — is another critical component of Providence Heart & Vascular Institute’s comprehensive heart program. Cardiologists with specialized education and training diagnose and treat arrhythmia and other cardiac abnormalities. In our state-of-the-art electrophysiology lab, our staff performs more than 2,000 electrophysiology-related procedures each year.

Services include:
• Diagnostic testing
• Interventional therapy
  ◦ Ablation
  ◦ Implantable cardioverter defibrillator (ICD)

Critical Care and Pulmonology
Because heart patients are susceptible to respiratory complications following cardiovascular surgery, patient care teams include critical care and pulmonology physician specialists and staff. This multidisciplinary approach helps to quickly address post-cardiac surgery issues.

Sleep Lab
Recognizing the impact of sleep apnea, insomnia and other sleep disorders on heart health and overall well-being, Providence has developed a state-of-the-art sleep lab supported by board-certified sleep physicians and highly trained technical staff with the ability to test for, diagnose and treat a wide variety of sleep disorders.
LifeNet
Every second saved can potentially save valuable heart muscle, so we partner with LifeNet South Carolina helicopter transport service to overcome hurdles to care such as distance, inaccessibility or road conditions. This airborne intensive care unit is available at all times and provides emergency care during transport.

Peripheral Artery Disease (PAD) Treatment
Because undiagnosed and untreated PAD can lead to limb amputation or critical limb ischemia (CLI), our highly skilled and experienced vascular experts collaborate to provide the best possible treatment for patients. Therapies can include medical and lifestyle management options or endovascular procedures such as surgery and stent implantation. Some patients may be eligible for new therapies currently undergoing clinical trial.
Cardiac Support

Cardiopulmonary Rehabilitation
Heart patients as well as those at risk for heart disease benefit from Providence Heart & Vascular Institute’s nationally certified cardiopulmonary rehabilitation program. The multidisciplinary team includes nurses, exercise physiologists, registered dietitians, respiratory therapists and vocational rehabilitation counselors. The team works under the direction of a cardiologist to develop and guide participants through an individualized program of education, exercise, relaxation and stress management. Our goal is to help heart patients return to active daily lives.

Pulmonary Rehabilitation
Patients with chronic respiratory disease receive comprehensive preventive and restorative care through highly individualized programs. While many participants are living with chronic obstructive pulmonary disease (COPD), the program greatly benefits those patients with asthma, interstitial lung disease, bronchiectasis, cystic fibrosis, neuromuscular disorders, ventilator dependency, cancer, and those who are undergoing or have undergone a lung transplant.

Mended Hearts Support
Mended Hearts is a national organization of heart patients, their families and others impacted by heart disease. Members volunteer their time visiting patients and their families, lead support groups and participate in educational forums, using personal experience to help others and inspire hope. Providence Hospitals’ Mended Hearts chapter is the largest in the nation and one of the most active. Contact the group from our website, providencehospitals.com, or by email at mendedhearts189@yahoo.com.

Pastoral Care
Because any treatment impacts the body and spirit, we provide support, comfort, prayer and counseling that foster healing and recovery. Our pastoral care services are available 24 hours a day and offer comfort for patients and families.
Access to Advanced Clinical Research

Providence Heart & Vascular Institute has a long tradition of supporting clinical trials. While vital to the advancement of medicine, clinical trials also allow patients to receive progressive treatments not widely available to the general public. Clinical trials also keep doctors near the leading edge of cardiovascular care. Our physicians have participated in a range of groundbreaking clinical trials and studies including those for coronary and carotid stents, heart attack medications, the use of intravascular ultrasound in cardiac catheterization, defibrillator, heart resynchronization pacing and pacemakers, implantable cardioverter defibrillators and many more.

**Groundbreaking Clinical Trial Participation**

**MADIT CRT**: This trial helped determine if combined implantable cardiac defibrillator-cardiac resynchronization therapy would reduce the risk of mortality and heart failure events.

**TAXUS V and TAXUS V ISR**: The Taxus stent was a first-generation drug-eluting stent. With our participation, Providence Heart & Vascular Institute performed the first drug-eluting stent implantation in South Carolina, making the technology available to patients prior to FDA approval.

**PROSPECT**: This international trial gave insight into the types of vulnerable plaques most likely to cause sudden adverse cardiac events and ways to use imaging techniques to predict such events before they occur. Now a routine part of IVUS exams, this trial made Providence Heart & Vascular Institute one of the first hospitals in the world to utilize virtual histology imaging.

**FLAME**: This pivotal clinical trial proved the effectiveness of the filter wire in protection against distal emboli during saphenous vein graft (SVG) PCI. The trial preceded FDA approval and it’s now the leading SVG protection device in clinical practice. Participation in the trial provided Providence Heart & Vascular Institute patients with early access to a key advancement in technology.

**CREST**: This randomized study of carotid stenting vs. CEA for carotid lesions demonstrated the equivalent effectiveness of carotid stenting to the surgical “gold standard.” Based on this trial result, the FDA advisory committee has recommended approval of carotid stenting.

**SPIRIT IV**: This trial evaluated the Xience V® Everolimus Eluting Coronary Stent in patients with de Novo native coronary artery lesions. Participation in this trial helped establish the Xience stent as the leading drug-eluting stent worldwide.
The powerful commitment of the Sisters of Charity resonates in all we do. Our healing ministry and compassion for patients and their families are rooted in the teachings of Jesus Christ. Our mission and ideals are a genuine effort to improve the lives of South Carolinians.

One of the greatest assets we have in the battle against cardiovascular disease is experienced specialists, clinicians and allied health professionals. Our talented team includes cardiac surgeons, cardiologists, cardiac anesthesiologists, cardiovascular physician assistants, certified RN anesthetists, perfusion staff, rehabilitation specialists, pharmacists, outreach and more.

Working together in preoperative, intraoperative and postoperative patient care environments, the team integrates and streamlines care with a compassionate touch that promotes better patient outcomes. We provide a level of expertise and precision rarely seen outside of a major teaching hospital.

The majority of patients undergoing cardiac surgery and other thoracic procedures at Providence Heart & Vascular Institute are under the care of a patient-centered team that’s fortified with decades of cardiac-focused care. That long-standing expertise sets us apart from many other state and regional heart programs and hospitals.
Providence’s Heart Team includes:

• Cardiac Surgeons
• Cardiologists
• Cardiac Anesthesiologists
• Critical Care Physicians
• Emergency Physicians
• Pulmonologists
• Cardiac Nurses
• Cardiovascular Physician Assistants
• Cardiovascular Surgical Technicians
• Certified RN Anesthetists
• Perfusionists
• Dietitians
• Chaplains
• Pharmacists
• Physical Therapists
• Occupational Therapists
• Respiratory Therapists
• Social Workers

Years ago, we set the standard for cardiac care in the Midlands. Our staff and their dedication continue to provide excellent outcomes for our heart patients today.
Community-based Prevention and Wellness

Education and Support for Healthier Lives

Many factors within a person’s control can tip the balance toward lifelong wellness. That’s why teaching South Carolinians how to avoid heart disease is as important as treating it. Our Community Wellness program empowers people to take control of their health, and provides education and support programs. It also reaches out in the community through special events that spread awareness and keep families on the right track.

Speaking of Your Health Educational Series

Our physicians and clinicians lead discussions and take questions on a wide array of health topics. From grocery store tours to healthy cooking demonstrations and presentations about heart attack warning signs to vascular screenings, these classes provide tools for better living. Learn about upcoming classes and topics at providencehospitals.com/calendar.

HealthyLiving

Our quarterly magazine, HealthyLiving, contains information about what’s new at Providence Hospitals, disease prevention tips, health guidelines, heart-healthy recipes, quizzes that test your health I.Q. and more. It’s also a chance to meet some of our many physicians and care providers, and view upcoming educational events and special events. HealthyLiving is available online at providencehospitals.com or sign up there to receive your issues in the mail.
Providence Health Connect
Available 24 hours a day, seven days a week, Providence Health Connect can help you find a physician or learn about upcoming educational classes and events that keep you and your family focused on healthy living. To request an appointment with a physician or to register for classes, call toll free 877.256.5381.

Health Screenings
Quick and non-invasive vascular screenings for men and women are provided by the Providence School of Cardiovascular Diagnostics. The screenings include carotid ultrasound, ankle-brachial pressure index and echocardiogram. No physician’s order or insurance is required. You can pre-register at 877.256.5381. A fee applies.

Providencehospitals.com
We make it easier than ever to stay informed about health information and education, outlining upcoming events and provide access to tools that help track your family’s health. Visit us online at providencehospitals.com and click on ‘Health Information.’ You can also sign up for podcasts, e-newsletters and live feeds. Make our website your trusted source for in-depth health and wellness information. Our health content is also available in Spanish.

MyProvidence
Manage your personal and family health care needs with our free online personal health record. Registered users can view and print their health records, list future appointments, and receive email or text reminders of upcoming appointments. With screening tools to help track blood pressure, cholesterol and other health measures, signing up is easy. Just visit providencehospitals.com/myprovidence.

Providence Heart & Sole
Women’s Five-Miler
This spirited five-mile run and walk event draws thousands of women to Columbia’s Finlay Park every year. Heart & Sole spreads awareness of heart disease in women and helps promote a more heart-healthy lifestyle. Learn more about this annual event at HeartAndSoleRun.com.

Midlands Heart Walk
The Midlands Heart Walk encourages people to move toward better health by walking and raising money to help prevent heart disease and stroke. For more information about this fun event, visit startmidlandssc.org or call the American Heart Association at 803.738.9540.
Called to a Higher Standard

It takes a dedicated and talented team to make Providence Heart & Vascular Institute South Carolina’s Heart Hospital. Providing a higher standard of care is a mission and tradition throughout Providence Hospitals.

It’s true that we perform more heart and vascular procedures than any other hospital in the state and that we’ve introduced lifesaving new techniques and earned national recognition in cardiovascular care. But the fight against heart disease continues. So we continue to pursue innovative treatments, support leading-edge research and work to keep our community informed and engaged.

Learn More Today

Whether you or a loved one has heart disease, are at risk or simply seek lifelong wellness, we’re here for you. Now is the time to learn more about heart disease, take steps to prevent heart problems and plan where you want to go for the best heart care. Visit decisionheart.org or call 855.256.5381 today to learn more about the resources and experience of heart care providers in the Midlands.

Why click when you can scan?
With a scan app, use your smartphone to visit decisionheart.org