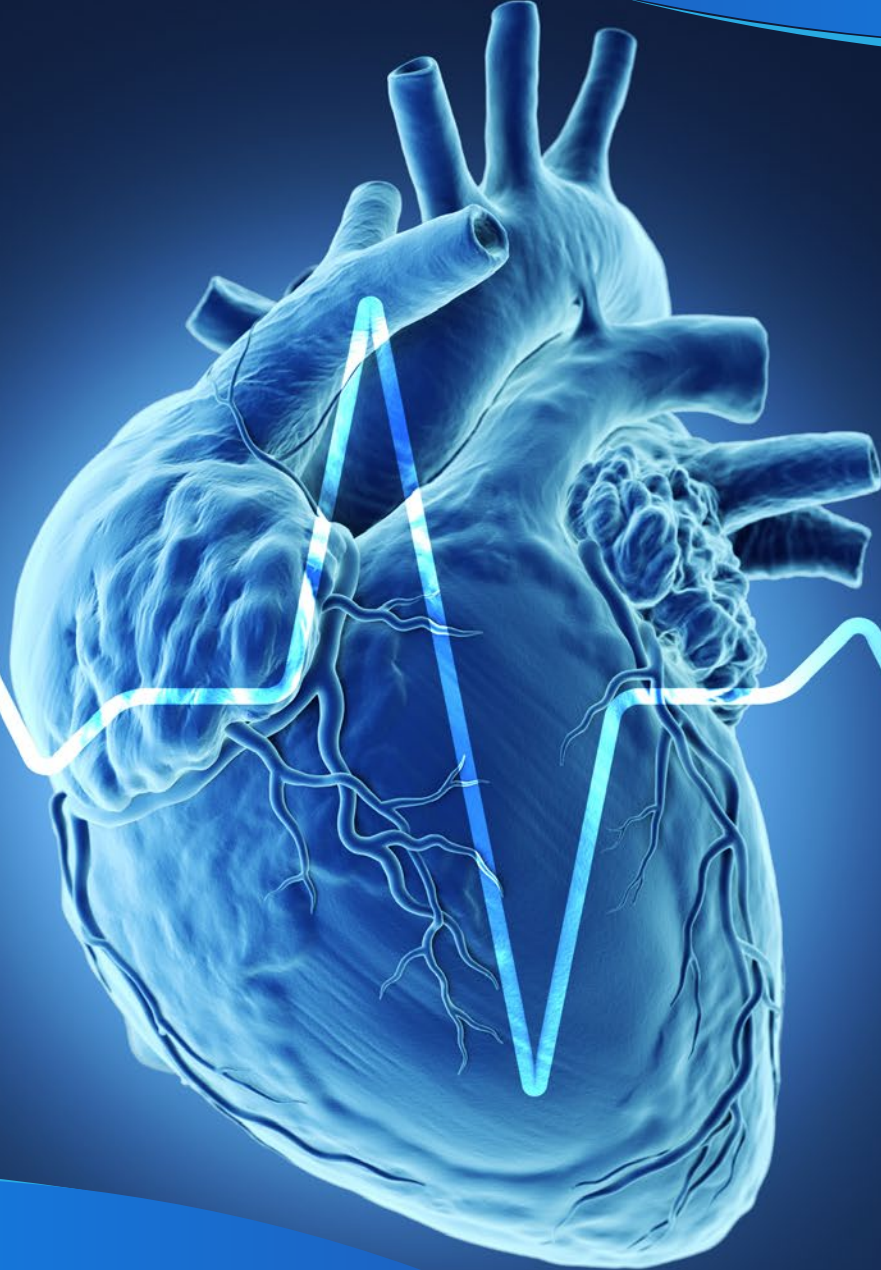
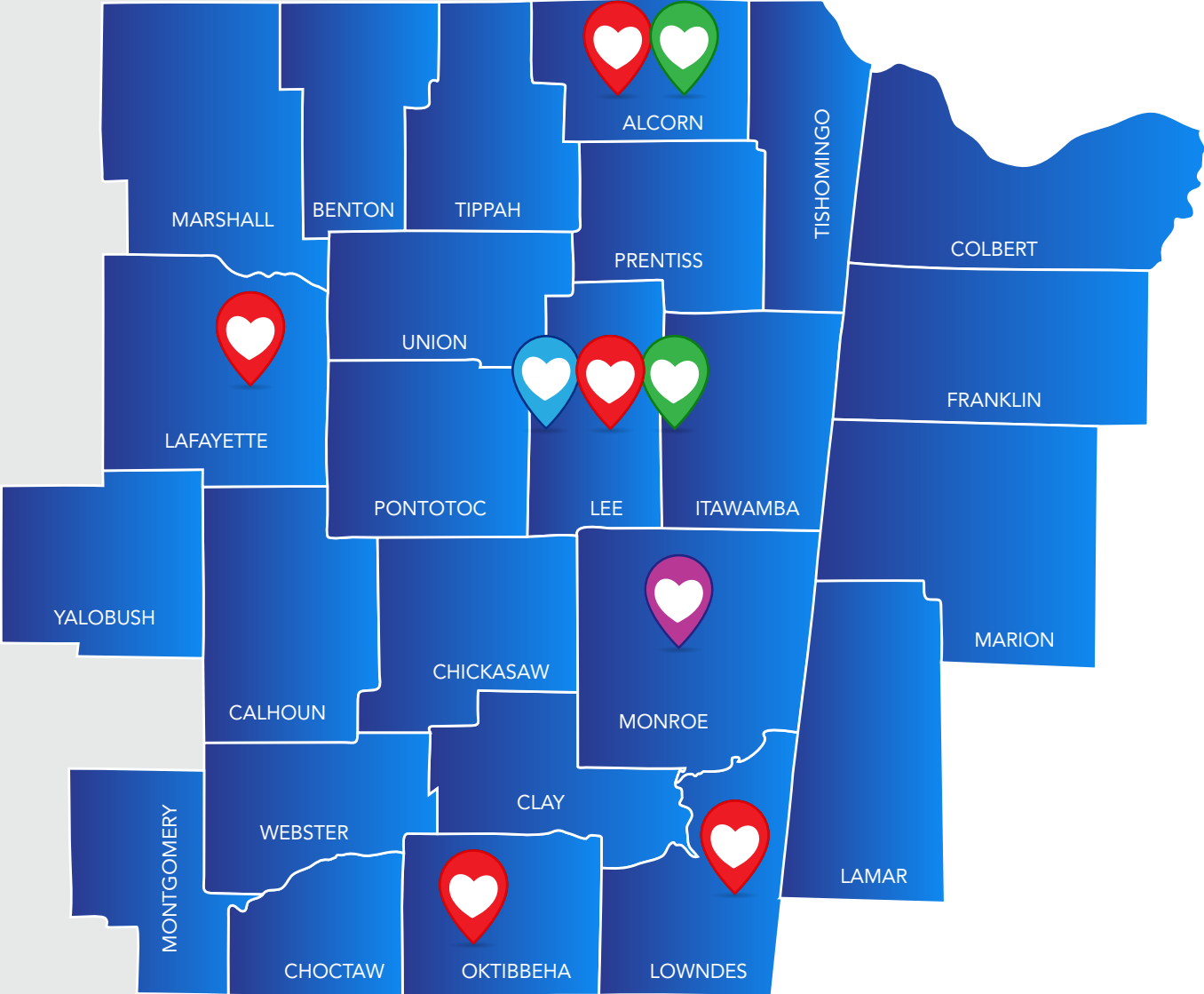


HEART & VASCULAR INSTITUTE



Locations



NMMC-TUPELO



CARDIOLOGY ASSOCIATES OF NORTH MISSISSIPPI



CARDIOTHORACIC & VASCULAR SURGERY CLINIC



AMORY CARDIOLOGY CLINIC

Experience leads to expertise.

More patients and procedures add up to fewer complications and better outcomes. The North Mississippi Medical Center Heart and Vascular Institute in Tupelo is the most experienced and advanced program in the region.

NMMC-Tupelo offers access to nationally recognized physicians whenever you need them, day or night. Our board-certified cardiologists, electrophysiologists, and cardiothoracic and vascular surgeons are available 24/7.

Here, unlike other area facilities, we care for heart and vascular patients on dedicated units – the Cardiovascular Nursing Unit, Chest Pain Center, Cardiac Observation Unit or Cardiovascular Step-Down Unit.

Since 1981, NMMC has pioneered many cardiac diagnostic and treatment technologies. We offer this region's only and one of the nation's largest cardiovascular research centers, which means our patients get access to cutting edge, state-of-the-art devices and medications years before they would ordinarily become available. Truly, care here is a step ahead.

15

board-certified
cardiologists

3

board-certified
cardiac electrophysiologists

3

board-certified
cardiothoracic surgeons

2

board-certified
vascular surgeons

4

cardiac
catheterization labs

3

cardiac
electrophysiology labs

1

newly renovated
hybrid OR

ACCOLADES

Designated as a BlueCross BlueShield of Mississippi Blue Distinction Center of Excellence+ for Cardiac Care

Included in the 50 Top Cardiovascular Hospitals™ annual study by IBM Watson Health™, which identifies top U.S. hospitals for inpatient cardiovascular services based on a balanced national scorecard of hospital performance metrics

American College of Cardiology's NCDR Chest Pain-MI Registry Platinum Performance Achievement Award

Society of Thoracic Surgeons three-star overall quality rating for coronary artery bypass graft (CABG) surgery

STEMI Receiving Center, Mississippi State Department of Health

Certified by the American Association of Cardiovascular and Pulmonary Rehabilitation

Cardiology

- Instrumental in developing Mississippi's award-winning **Heart Attack System of Care**. NMMC is never on diversion for heart attacks because we have a board-certified interventional cardiologist on call 24/7/365 to attend to life-threatening emergencies.
- The region's **ONLY lipid program** for patients with difficult-to-manage dyslipidemia (a disorder of lipoprotein metabolism). If indicated, patients will be given medication with regular follow-up as well as extensive dietary counseling. Advanced laboratory testing is available for patients with complex lipid abnormalities.
- This area's **ONLY device program**, in which we follow more than 1,000 patients with pacemakers and/or implantable defibrillators. Patients are seen routinely, and their devices are "interrogated" for integrity. Newer devices have sophisticated diagnostics that can help diagnose and manage arrhythmias. This information helps us better tailor the choice of medications, cardiac testing and possible interventions. In addition, we offer transtelephonic and remote digital monitoring for pacemaker patients.
- The area's **ONLY pulmonary embolus (PE) treatment program**. Acute PE is a common cause of sudden death and responsible for 15% of all in-hospital deaths. Our PE response team offers rapid 24/7 consultation and treatment, including ultrasonic thrombolysis and clot aspiration.



Linda Patterson of Vardaman and many others benefit from [NMMC's Chest Pain Center](#).

Typically, patients spend less than eight hours in the center, which allows adequate time for observation without the expense of a hospital admission. This 24-hour cardiac flex unit allows for not only rapid evaluation but also ongoing inpatient care of the patient in the same location.



- The region's **ONLY percutaneous ASD/PFO closure center**. Often these defects are the cause for paradoxical emboli into the arterial system, leading to stroke or other arterial clots. Since 2007, we have successfully closed more than 750 “holes in the heart.”

NMMC is the **FIRST** hospital in Mississippi to perform **intravascular lithotripsy** to benefit patients like Jerry Eaton of Houston. This procedure uses sonic pressure waves to address hard, calcified coronary plaque that restricts blood flow. The cardiologist inserts a catheter and slightly inflates a balloon, then activates sonic pressure waves to crack calcium in the artery wall. Then the balloon is expanded to make way for the stent.



Our cardiologists performed Mississippi's **FIRST** case using the **2.00 Max Crown**, a new technology in peripheral atherectomy that removes plaque from peripheral arteries above the knee. This device helps doctors clean out blood vessels in the leg much like what Roto-Rooter® does for plumbing and allows for more plaque removal than ever before possible. The interventional cardiology team has a host of non-surgical techniques to keep blood flowing in your legs.

- The **ONLY** local treatment center for **hypertrophic obstructive cardiomyopathy (HOCM)**, a condition that can lead to progressive heart failure and sudden death. Services include:
 - Individualized care plans
 - Genotypic analysis for definitive diagnosis
 - Comprehensive evaluation (cardiac imaging, stress testing, surveillance for heart rhythm disturbances)
 - HOCM family screening
 - Stratification regarding risk for sudden cardiac death
 - Implantable cardioverter defibrillator and pacemaker therapy
 - Alcohol septal ablation or surgical septal myectomy for refractory symptoms

CARDIOLOGISTS

Joseph Adams, M.D.

Dane Ballard, M.D.

Barry Bertolet, M.D.

Benjamin Blossom, M.D.

Jonathan Blossom, M.D.

Baker Boler, M.D.

Michael Boler, D.O.

Michael Boland, M.D.

William "Bo" Calhoun, M.D.

Steven Carroll, M.D.

Murray Estess, M.D.

Douglas Hill, M.D.

James Johnson, M.D.

Nelson Little, M.D.

Roger Williams, M.D.

- Cardiologists partner with the University of Mississippi Medical Center in Jackson and Baptist Memorial Hospital in Memphis to offer **advanced heart failure strategies** in Tupelo, including access to heart transplantation and implantable ventricular assist devices at those facilities.
- Cardiologists work alongside NMMC's Cardiothoracic Surgery team on our comprehensive, coordinated **heart valve disease treatment** program, which allows us to correct serious heart valve issues without an open surgical procedure.
- Accredited by the Intersocietal Accreditation Commission in Echocardiography for **adults and pediatric transthoracic echocardiography** to evaluate heart structure and function.



Electrophysiology



Our cardiac electrophysiology (EP) team has now implanted more than 750 **Watchman left atrial occlusion devices** to prevent stroke in patients with atrial fibrillation. The Watchman is an alternative for patients for whom long-term use of blood-thinning medications is problematic. The Watchman serves as a plug, sealing the left atrial appendage to keep larger blood clots from entering the bloodstream.

In addition, our EPs were the **FIRST** in the nation to implant the **Amulet left atrial appendage occluder**.

ADDITIONAL SERVICES

- Pacemaker (single, dual, biventricular, leadless, left bundle branch pacing)
- Defibrillator/ICD (single, dual, biventricular)
- Implantable Loop Recorder
- Device and Lead(s) Extraction
- Electrophysiology Study Testing
- Cardiac Ablation (atrial fibrillation, atrial flutter, supraventricular tachycardia, ventricular tachycardia, septal)

CARDIAC ELECTROPHYSIOLOGISTS

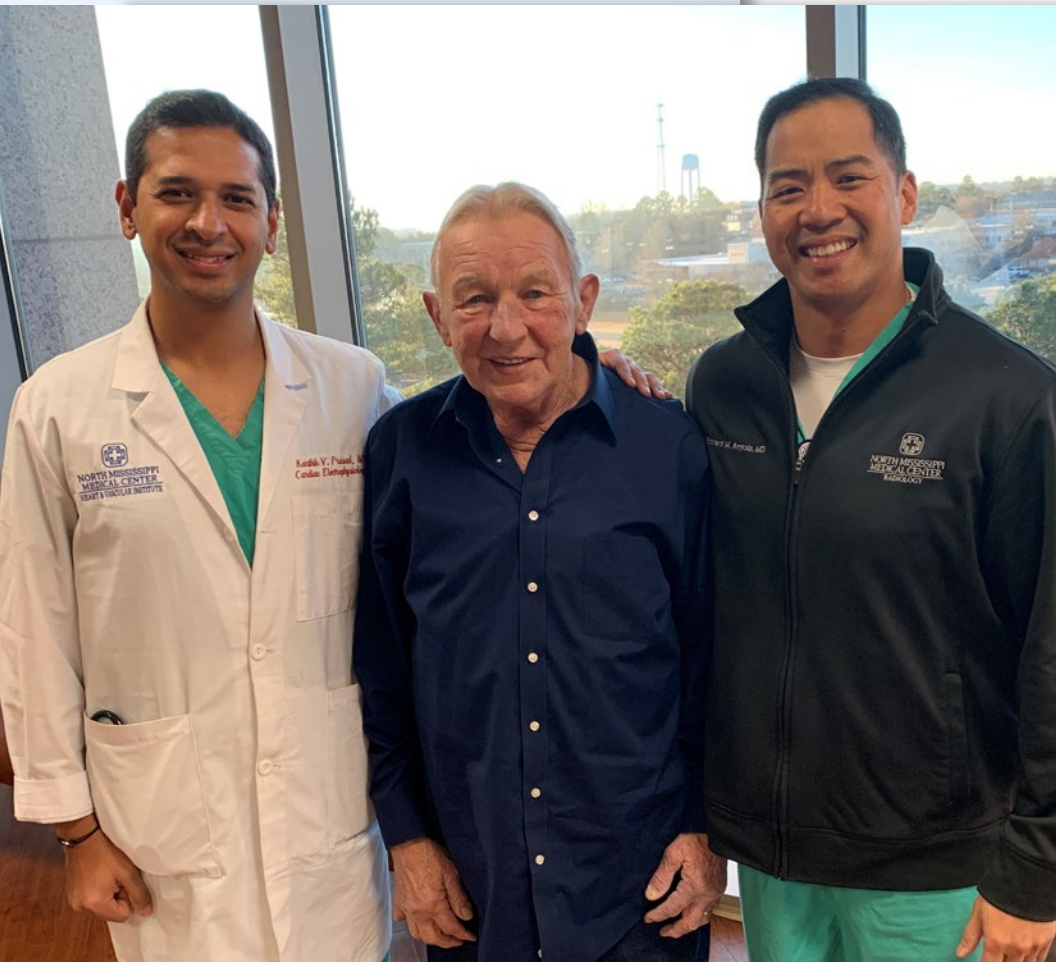
Karl Crossen, M.D.

Karthik V. Prasad, M.D.

Jim Stone, M.D.

Elsheikh Abdelrahim, M.D.
(starting August 2023)

- Our EPs are implanting a new **cardiac contractility modulation device** for individuals with chronic heart failure (EF 25-45%). Unlike a pacemaker, this device delivers non-excitatory electrical signals to the RV septum during the absolute refractory period using standard leads. Every hour, the leads deliver 7.5 volts at 20 milliseconds, which is 300 times more energy. The device can be implanted by itself or with a coexisting (not biventricular) pacemaker or (not biventricular) ICD. This therapy increases calcium uptake and contractility and promotes LV remodeling. Results are promising – 80% of heart failure patients improved by one New York Heart Association class, while 42% of patients improved by two classes.



Gary Cameron, 72, of Ecu is the **FIRST** person in Mississippi – and only fourth in the nation – to undergo a **transhepatic Watchman procedure** for atrial fibrillation. Even though Gary's femoral blood vessels were too twisted to allow access to his heart, our team did not give up. After thoroughly researching a different technique, our EP collaborated with an interventional radiologist at NMMC to implant the Watchman via a hepatic vein through the liver.

Cardiothoracic Surgery



Andre Braxton of Palmetto is one of more than 100 patients to benefit from a **MitraClip** procedure at NMMC-Tupelo, the **ONLY** hospital in north Mississippi to offer this technology. The mitral valve is accessed via a catheter guided through a leg vein to reach the heart. Then the MitraClip device is attached to the mitral valve to allow it to close more completely and restore normal blood flow.

- **Transcatheter mitral valve replacement** treats severe mitral stenosis without open surgery for individuals who have had previous mitral surgery.
- **ONLY** hospital where both our cardiothoracic surgeons and cardiac EPs are trained in **Hybrid AF Convergent Therapy**. These heart specialists collaborate to treat and manage persistent atrial fibrillation using several different approaches (going through the patient's leg vessels, minimally invasive procedures or open surgery).
- Performed more than 500 **transcatheter aortic valve replacement (TAVR)** procedures at NMMC-Tupelo. Ten years earlier, NMMC was the **FIRST** hospital in Mississippi and the seventh nationwide to offer TAVR, a promising alternative for high-risk patients for whom heart surgery was not an option. Later in 2012, NMMC became the **FIRST** hospital in Mississippi to perform a trans-apical **transcatheter aortic valve replacement (TA-TAVR)**, in which the valve is inserted between the ribs and the heart's apex.



Sarah Reynolds, a 37-year-old mother of three from Pontotoc, recently suffered a spontaneous coronary artery dissection (SCAD) heart attack of her left anterior descending artery (LAD). At NMMC, doctors implanted the Impella 5.5 temporary heart pump to allow Sarah's heart to rest and recover while supplying much needed blood and oxygen to other vital organs. After five days of support, Sarah's heart function dramatically improved and, not long afterward, she returned home.

- **Aortic root surgery** for patients with aortic valve and ascending aortic issues, such as dissection or aneurysm. Our surgeons perform:
 - **Aortic valve and root replacement** involves removing part of the aorta and the aortic valve, then replacing it with a conduit graft. The aortic valve is replaced with a mechanical or biological valve.
 - **Valve-sparing aortic root repair**, where the surgeon replaces the enlarged section of the aorta with a graft and the aortic valve stays in place. In one technique, the surgeon sews the valve inside the graft.
- **Minimally invasive aortic and mitral valve replacement surgery**, which leaves patients with a much smaller incision, less blood loss and faster recovery.

■ **FIRST** in Mississippi and Alabama to implant the **SAPIEN 3 Ultra RESILIA transcatheter aortic heart valve**. This valve uses anticalcification technology that will potentially allow the valve to last longer than anything available in the past.

■ **FIRST** hospital in Mississippi to use **AngioVac** technology to treat tricuspid endocarditis. Our surgeons used the vacuum-assisted device to remove infection from the patient's heart without having to open her chest. The procedure can also be used to treat pulmonary embolism.

CARDIOTHORACIC SURGEONS

Evan Garner, M.D.

Vishal Sachdev, M.D.

David Talton, M.D.



Dena Coleman of Sturgis had Mississippi's **FIRST transcatheter tricuspid valve replacement surgery** at NMMC.

Tricuspid valve replacement surgery is quite rare and usually performed as open heart surgery. Because having a third open heart surgery was risky for Dena, the surgeon went through her femoral vein, requiring only a small incision in her leg. Next, a balloon catheter was placed across the faulty valve and stretched open so the new tricuspid valve could be placed. When the balloon was inflated, it pushed the new valve into position inside the old one. The balloon catheter was then removed, and the new valve started working immediately.

Vascular Surgery

NMMC's vascular surgeons help prevent stroke with three main types of carotid artery procedures:

- Carotid endarterectomy
- Carotid stenting
- TransCarotid Artery Revascularization (TCAR)

VASCULAR SURGEONS

Jack Neill, M.D.

Joey Stinson, M.D.



TransCarotid Artery Revascularization (TCAR)

for patients like David White of Pheba who are considered too risky for traditional surgery – another **FIRST** in Mississippi. Surgeons perform the procedure through a much smaller incision at the neckline just above the clavicle instead of a longer incision on the neck. Blood flow is temporarily reversed during the procedure so that any small bits of plaque that may break off are diverted away from the brain, preventing a stroke from happening. Surgeons then filter the blood before returning it to a vein in the groin and implant a stent directly into the carotid artery to stabilize the plaque and prevent future strokes.



- High volume of **aneurysm repair procedures** – both endovascular (or minimally invasive) and open surgery. With open surgery, the surgeon makes an abdominal incision and removes the aneurysm then sews a graft in place to reestablish blood flow. In the minimally invasive procedure, nothing is removed. Instead the surgeon uses a catheter to place a stent graft to reinforce the wall of the aorta from the inside and help keep the damaged area from rupturing.
- Offering dialysis patients vascular access two ways:
 - AV fistula created by taking a nearby vein and sewing it to a nearby artery. Over time the vein develops into a usable fistula.
 - AV graft by sewing a prosthetic graft between an artery and vein in the arm or leg.

Our vascular surgeons offer three minimally invasive limb-saving procedures:

- **Artherectomy** uses a catheter with a blade on the end to remove plaque from a blood vessel.
- In **balloon angioplasty**, a catheter is guided to the narrowed artery then a balloon is inflated to open up the artery.
- Sometimes a tiny **stent** will be placed to hold the artery open and reduce the risk of it narrowing again.
- If these are not an option, an open **surgical bypass** to circumvent the area of blockage can be performed. A graft or vein from elsewhere in the body is stitched in place to restore blood flow to the lower leg and foot.



**NORTH MISSISSIPPI
MEDICAL CENTER**

830 South Gloster Street | Tupelo

1-800-THE DESK (1-800-843-3375)

nmhs.net/heart-vascular