

Heart and Vascular Care Guide



summahealth.org/heart



Summa Health Heart & Vascular Institute

Summa Health Heart & Vascular Institute (SHHVI) has the largest cardiovascular medicine team in the region with more than 40 cardiologists, cardiothoracic and vascular surgeons. The Institute's comprehensive range of services includes:

- Behavioral health support for heart patients
- Heart rhythm services
- Invasive and interventional cardiovascular medicine
- Noninvasive cardiovascular medicine
- Cardiothoracic surgery
- Vascular services

Visit summahealth.org/heart for complete information.

Commitment, Compassion, Community

Hearing you may have a heart condition can be unsettling—for patients and their families. At Summa Heart & Vascular Institute (SHHVI), we understand what patients and families face when dealing with a serious health concern.

This guide is designed to help you understand more about cardiovascular treatments, terminology and the services SHHVI offers. From diagnosis to treatment, SHHVI provides comprehensive heart and vascular services throughout the communities we serve in northeast Ohio.

The Institute brings together a multidisciplinary team of heart and vascular experts who work together to bring high quality, coordinated care to their patients. We provide world-class care through our integrated healthcare delivery system.

SHHVI provides access to some of the highest quality, patient-centered cardiovascular care in northeast Ohio. Our patient volume continues to rise (nearly 10,000 cardiovascular admissions each year), and our patient outcome and satisfaction scores exceed national averages.



Suzanne Antal's severe aortic stenosis was treated with a minimally-invasive heart valve replacement in Summa Health Akron Campus hybrid OR.

Behavioral Health



Summa Heart & Vascular Institute (SHHVI) added a behavioral health component to its heart care programs to address depression and other issues that can influence a patient's overall health.

The program is led by a clinical psychologist and offers heart patients and their families:

- Assistance with lifestyle changes (smoking cessation, diet, adherence to exercise regimen, etc.)
- Treatment for symptoms related to depression, anxiety, post-traumatic stress disorder (PTSD) and social support stress
- Treatment for fear and anxiety related to an implantable cardiac device (pacemaker or defibrillator)
- Advice for caregivers and family members on how to prevent stress-related conditions

Psychologists use a combination of cognitive behavioral therapy (CBT), relaxation and mindfulness techniques to help patients learn how to cope with these and other issues.

The program's goals are to:

- Increase patient compliance with treatment regimens
- Lower stress levels for patients, caregivers and family members
- Improve patient outcomes

Patients may wish to include spouses, partners, or family members in treatment sessions. Caregivers also may opt to participate in individual or group sessions about how to manage the stress involved with caring for a loved one with a chronic illness.

For more information about Summa Heart & Vascular Institute's Behavioral Health Program, call [330.375.4116](tel:330.375.4116).

Visit summahealth.org/heart for complete information.

Invasive Cardiovascular Medicine

Summa uses advanced imaging technology to detect and treat blockages inside people's arteries.

Our cardiologists can thread a catheter into a coronary artery to see how blood is being supplied to the heart, or into a peripheral artery to see how blood is flowing to other parts of the body.

When a blockage is detected, the images give our cardiologists a clear picture of what's happening inside a patient so an effective treatment plan can be developed.

Some of the services we offer include:

- Angioplasty
- Heart catheterization
- Stenting

The STEMI team at Summa Health Akron Campus treated Brad Genovese's massive heart attack with a stent in just 38 minutes (door-to-balloon time) - well below the 90-minute standard recommended by the American Heart Association.



CPC Accreditation: Better Outcomes for Patients

Summa Health Akron Campus and Barberton Campus are accredited Chest Pain Centers (CPC). CPC accreditation is important because it helps Summa:

- Improve patient outcomes by using the latest evidence-based best practices in cardiac care
- Create a team approach to cardiac care treatment with the most efficient use of resources
- Reinforce our commitment to high standards within our facility and within our community
- Make clinical decisions based on measures of quality



**American Heart Association
ACCREDITATION**

Meets standards for

Heart Attack Receiving Center

1st Ohio AHA-Accredited Heart Attack Receiving Center

In 2012, Summa Akron City Hospital was the first Ohio hospital to receive the American Heart Association's Mission: Lifeline® Heart Attack Receiving Center Accreditation.

Each year, hundreds of thousands of Americans have a type of heart attack known as ST-elevation myocardial infarction (STEMI), in which blood flow is completely blocked to a portion of the heart. Unless the blockage is eliminated quickly, the patient's health and life are at serious risk. Percutaneous coronary intervention (PCI) is a mechanical means of treating heart attack patients by eliminating blockages in coronary veins and arteries.

Although PCI is the preferred means of treating STEMI patients, only 25 percent of hospitals in the United States are equipped to do so, according to the American Heart Association.

Being named an accredited Heart Attack Receiving Center means Summa Health Akron Campus has the equipment and expertise to quickly and effectively treat heart attack patients. Working together as a team with emergency medical services (EMS) and non-PCI hospitals, Summa saves lives.

Did You Know?

Since 1984, more women than men have been diagnosed with heart disease. Women may experience different physical signs and symptoms of a heart attack than men.

For example, symptoms like indigestion or gas-like pain, dizziness, nausea, weakness and fatigue, pain between the shoulder blades and a sense of anxiety are all more common signs of a heart attack in women. Symptoms may vary greatly from person to person. Not everyone has the classic "Hollywood heart attack" symptoms.

If you suspect you or someone you know may be having a heart attack, don't wait for the symptoms to go away – seek medical attention as soon as possible!

When it Comes to a Heart Attack, "Time is Muscle."

It's called door-to-balloon time (D2B), and it's a measure of how long it takes a heart attack patient who's entered a hospital to have his/her blocked artery cleared with an angioplasty. The national target is 90 minutes. The averages at Summa Health Akron and Barberton Campus are 43 minutes and 64 minutes, respectively—well below the 90-minute standard.

D2B time is important because the faster patients are treated, the less chance there is of damage to heart muscle—and the sooner they can return to work and activities they enjoy. Summa's world-class heart attack treatment is available to everyone in the community—no matter where they live.



Noninvasive Cardiovascular Medicine

Noninvasive cardiovascular medicine uses a variety of tests to record an image of the heart to see how the heart is functioning during contraction and relaxation. These tests do not require catheters, tubes or needles to be inserted into the body. Instead, a combination of electronic sensors, pulse transducers, sonar devices, microphones and radioactive tracers are used to provide information to the cardiologist about how a patient's heart is functioning.

The information derived from noninvasive tests can provide valuable information to your physician, including:

- Early discovery of heart disease before a patient has a cardiac event
- Detecting complications before symptoms appear
- Identifying patients who are at risk for a future heart attack
- Determining the most effective dosage of drugs used in treatment
- Monitoring a patient's progress during treatment
- Detecting/treating possible complications before they become serious

Some of the services we offer include:

- Stress testing
 - Electrocardiogram (ECG)
 - Stress ECG (exercise and medication)
 - Nuclear stress test
- Noninvasive vascular imaging
 - Ultrasound and Doppler imaging
 - Arterial duplex scan
- Pulse volume recording (PVR)

ICAVL Accreditation:

Quality Patients Can Count On

The vascular testing labs at Summa Health Akron and Barberton Campuses are accredited by the International Commission of the Accreditation of Vascular Laboratories (ICAVL). All of Summa's technologists are registered vascular technologists (RVTs), and accreditation is granted only to those facilities that provide quality patient care in compliance with ICAVL Standards.

Heart Rhythm Services

Heart rhythm services physicians investigate the electrical issues within the heart, including abnormally slow, fast or irregular heartbeats. Some of the services we offer include:

- Ablation
 - Pulmonary vein isolation (PVI)
- Cardioversion
- Defibrillator and pacemaker lead extraction
- Device implantation
 - Pacemakers
 - Implantable cardiac defibrillators (ICD)
 - Subcutaneous implantable cardiac defibrillator (S-ICD)
- Electrophysiology testing
- Maze procedure
- WATCHMAN™ device implantation

Atrial Fibrillation Program

Summa Health offers patients a comprehensive atrial fibrillation program staffed by specially-trained electrophysiologists who can effectively treat and manage this condition.

Treatment focuses on reducing the risk of stroke and trying to eliminate symptoms associated with AFib. Cardiologists typically first treat with noninvasive methods, such as medication and cardioversion. However, if medication cannot effectively manage AFib, then ablation is a highly effective treatment strategy.

There also is a new option to reduce the risk of stroke in patients with atrial fibrillation (AFib) who wish to avoid taking warfarin or other anticoagulants. The implantation of a left atrial appendage closure (LAAC) device offers an alternative for AFib patients who rely on blood thinning medications such as warfarin (Coumadin) to reduce their risk of stroke. Summa Health electrophysiologists began implanting a type of LAAC device called the WATCHMAN™, manufactured by Boston Scientific, in patients.

For more information about Summa Health Heart & Vascular Institute AFib Program, call 888.335.5412.

Device Clinic

Summa's Device Clinic is comprised of a team of heart rhythm specialists who work collaboratively to care for patients with implantable cardiac devices. Team members include electrophysiologists, cardiac advanced practice nurses, RNs and technologists who all work together as members of the Institute.

Cardiac resynchronization therapy devices may be implanted for some heart failure patients, who may receive follow-up care during a visit to the clinic or via telephone monitoring from their home.

Special transmitter units gather information about how the device is functioning and send it via telephone to the device clinic for evaluation.

During each visit, the electronically gathered information is carefully evaluated and, depending on the findings, adjustments may be made to the way the device functions. The data gathering and device adjustments are painless and can be completed on an outpatient basis.

If you have an implantable cardiac device, talk to your doctor about his/her plans for your follow-up care. Ask for a referral to Summa's Device Clinic.

Visit summahealth.org/heart for complete information.

Cardiothoracic Surgery



Summa's board-certified cardiothoracic surgeons use a team approach when repairing heart conditions due to blockages in the arteries (coronary artery disease – CAD) or heart attacks, as well as valvular heart defects and congenital abnormalities (present from birth). Some of the surgeries performed include:

- Coronary artery bypass graft (CABG)
- Mitral valve repair
- Valve repair or replacement
- Surgery of the great vessels

Heart Valve Program

Summa's multi-disciplinary team of heart and vascular specialists treat heart valve conditions with a collaborative, personalized approach and accept referrals from primary physicians and cardiologists throughout the area.

Once a referral has been submitted, our team thoroughly screens the patient to determine the most appropriate treatment plan. A nurse and nurse practitioner conduct the initial screening to evaluate the patient's operative risk, frailty and home support system. The patient then undergoes a 3-D echocardiogram that measures the heart valves and assesses their characteristics. Next, the patient meets with a cardiothoracic surgeon and cardiac interventionalist for further medical screening

and operative risk assessment. The heart valve team then creates a personalized treatment plan designed to meet the unique needs of each patient.

Surgical treatment options include:

- Surgical Aortic Valve Replacement (SAVR)
- Transcatheter Aortic Valve Replacement (TAVR)

TAVRs are performed in the Hybrid Operating Room at Summa Akron City Hospital. The Hybrid OR Suite combines the functionality of a traditional operating room, a cardiac catheterization lab and an electrophysiology lab. It's specifically designed for performing TAVR and other procedures that require a team of specialists to work together.

Medical Management

There are no medications that can cure or delay the progression of heart disease for aortic stenosis patients who are too frail to undergo surgery. For these patients, medical management may be the only option. Medical management focuses on making the patient comfortable and reducing cardiovascular risk factors, such as hypertension, smoking, diabetes, high cholesterol and obesity. Medications may include statins, beta blockers and anti-hypertensive medications.

Vascular Services

Summa's board-certified vascular surgeons repair and redirect diseased blood vessels. Our surgical team is expertly skilled in minimally invasive (endovascular) surgical techniques, as well as traditional surgical techniques for conditions that are not treatable using less invasive strategies.

Summa Health's vascular specialists have more than 100 years of combined clinical practice, making Summa one of the most experienced vascular teams in northeast Ohio.

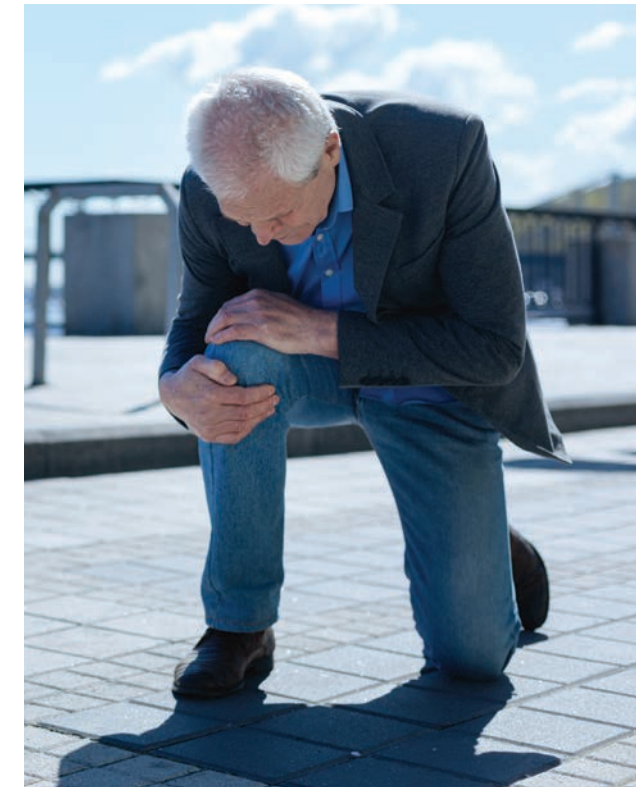
Achieve Optimal Vascular Health

Summa offers a wide range of both nonsurgical and surgical treatment options, including:

- Abdominal aortic aneurysm repair: open and endovascular
- Angiography: carotid, cerebral, extremity, pulmonary, renal, visceral
- Angiography and stent placement: carotid, peripheral
- Atherectomy
- Embolization
- Endarterectomy
- Endovascular stent grafting
- Inferior vena cava (IVC) filter placement
- Medical management of vascular disorders

Noninvasive vascular imaging to diagnose circulation problems in the arms, legs, arteries of the neck and the abdomen is available at multiple sites throughout the region.

For more information about Summa Vascular Services, call [330.434.4145](tel:330.434.4145).



Did You Know?

More than 12 million Americans have Peripheral Artery Disease (PAD), and many don't know it because the symptoms often go unnoticed, especially early on. That's why the screening at SCVI that's designed to catch the "silent killer" before it becomes a problem is so important.

Our screenings can detect a narrowing in the arteries of the legs from the fatty plaque that's accumulating there, and often that's the first sign of the onset of PAD.

Patients diagnosed with PAD face an increased risk of stroke and heart disease. To make an appointment for a PAD screening call **800.237.8662**.

Chronic Disease Management

Heart Failure Program

Summa Health Heart & Vascular Institute offers a program in which we partner with your primary care physician to provide you with the extra support and ongoing monitoring that has been shown to improve the health of those struggling with heart failure.

SHHVI's heart failure program is designed to:

- Help you and your family become active partners in your treatment through education
- Improve your quality of life and life expectancy
- Help you understand the importance of following your treatment plan, including medications, dietary restrictions, weight monitoring, physical activity and keeping follow-up appointments
- Increase your awareness and understanding of the symptoms of worsening heart failure, and help you know when and how to seek medical help – before a situation turns critical
- Reduce your emergency room visits and hospital admissions

Family members are encouraged to accompany you on visits so they can also learn about your condition and help you stick to your treatment plan.

Following your visit, we'll share information about your care with your primary care physician.

If you've been diagnosed with heart failure, talk to your doctor about a referral to one of the cardiologists at the SCVI heart failure program at Summa Akron City Hospital.

A Better Way to Manage Heart Failure

The CardioMEMS™ System, the nation's first and only FDA-approved heart failure monitor proven to significantly reduce hospital readmissions and improve quality of life for many heart failure patients, is now available at Summa Health.

CardioMEMS is a tiny, wireless monitoring sensor that is implanted in the pulmonary artery (PA) during a non-surgical procedure to directly measure PA pressure. Increased PA pressures appear before weight and blood pressure changes, which are often used as indirect measures of worsening heart failure. The new system allows patients to transmit daily sensor readings from home to their Summa healthcare providers, which allows doctors to proactively manage patients' heart failure and also reduce the likelihood of hospitalization.

Call Summa's Heart Failure Clinic at 330.375.3211 to find out if CardioMEMS is right for you.

Summa Anticoagulation Management Service (SAMS)

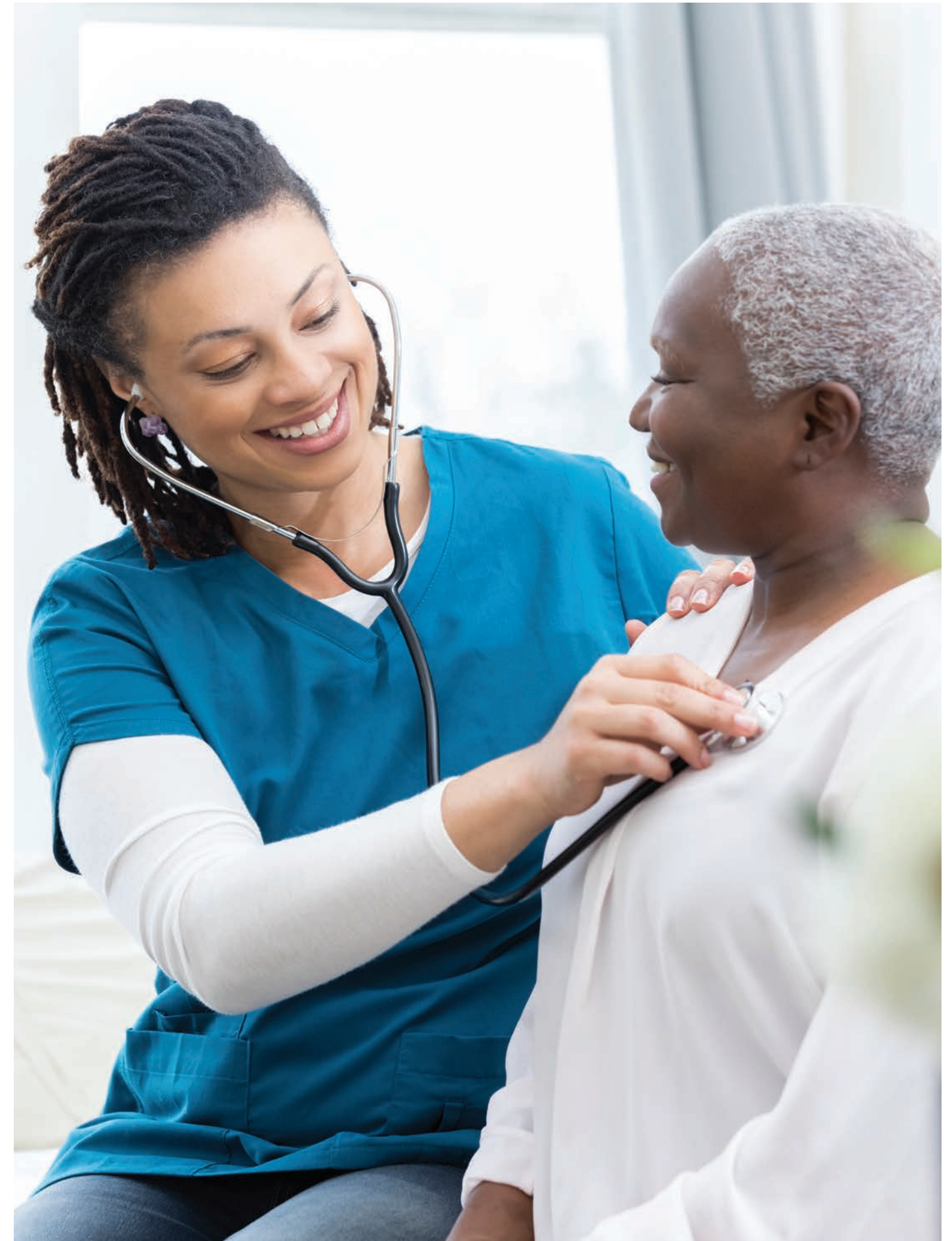
Summa Health Heart & Vascular Institute (SHHVI) and Summa Pharmacy Services offer an anticoagulant management program known as the **Summa Anticoagulation Management Service (SAMS)**. It can improve patient outcomes by offering patients additional support and assistance during their course of anticoagulant therapy.

The SAMS clinic team provides patients (and their families) with:

- Easy access to a pharmacist and/or a nurse with special training in anticoagulant therapy
- Evidence-based medication management
- Urgent evaluations for changes in clinical status
- Support from a nurse and pharmacist in making changes to diet and medication
- Ongoing individualized patient and family education

After a patient has been enrolled in the program, information about his/her medical status is shared with the referring physician at regular intervals.

If you've been prescribed anticoagulation medication (such as Coumadin/Warfarin), talk to your doctor about getting a referral to the SAMS Clinic at Summa Health Akron Campus.



Cardiac Rehabilitation

Phase I Cardiac Rehabilitation – In the hospital

The Phase I Cardiac Rehabilitation program at Summa provides immediate assistance to the hospitalized heart patient who is recovering after a surgical or medical procedure. The Phase I staff initiates important activities (including breathing exercises, progressive walking exercises and sharing knowledge about diet and medications) to help patients recover quickly and return to home as soon as possible.

Phase II Cardiac Rehabilitation – At home

Patients can enter Summa's Phase II/Outpatient Cardiac Rehabilitation program with a referral from their primary physician. From there, our cardiac rehabilitation team works with the patient's primary physician to develop a personal heart disease prevention program—which is a crucial part of helping the patient complete the process of recuperation that started at the hospital.

Phase III/IV Cardiac Rehabilitation – For life

Phase III and IV cardiac rehabilitation are combined at the Institute into a single program that encourages patients to make a lifelong commitment to regular exercise. Each participant engages in a combination of cardiovascular and resistance training (based on his/ her individual diagnosis and medical status) and learns how to modify other behaviors that minimize the chances of having a cardiac event.

Being diagnosed with heart disease or having a cardiac event can also be a concern to a patient's family, so we encourage family members to participate in the exercise sessions and free classes that promote cardiovascular health.

For information and registration, contact the cardiopulmonary rehabilitation team listed below that is closest to you.

Akron

Summa Health Akron Campus

Richard M. and Yvonne Hamlin Pavilion
95 Arch St., Suite G25
Akron, OH 44304
Phone: 330.375.4472

Barberton

Summa Health Center at Anna Dean

28 Conservatory Drive Suite A
Barberton, OH 44203
Phone: 330.615.5000

The cardiac rehabilitation team at Summa Health consists of highly skilled healthcare professionals, including nurses, physicians, physical therapists, registered dietitians and exercise physiologists. Call **330.375.4472** for more information.

Research, Education and Support

Clinical Research and Education

Summa Health is involved in multiple research projects to advance our knowledge of treating cardiovascular disease. Patients have access to innovative clinical research trials to evaluate new medical devices and prescription drugs.

Noted cardiovascular researcher Marc S. Penn, M.D., Ph.D., FACC, leads the cardiovascular research programs at Summa Health and Northeast Ohio Medical University (NEOMED), where he also heads the Skirball Laboratory for Cardiovascular Cellular Therapeutics. Dr. Penn's research focuses on helping patients benefit from new developments in stem cell research and other therapies.

Summa Health is also actively involved in training resident physicians in our hospitals. We collaborate with faculty and graduate students at the University of Akron, Kent State University and the Northeastern Ohio Medical University (NEOMED).

Cardiovascular Disease Fellowship Program

Summa's cardiovascular disease fellowship program provides robust clinical case volumes in all areas of cardiovascular medicine. Summa's three-year fellowship was accredited July 1, 2013 by ACGME and accepts three fellows per year through the NRMP match.

To learn about active clinical trials available at Summa Health, visit summahealth.org/research.

Support and Education

Akron

Mended Hearts

Mended Hearts is a national, community-based non-profit whose mission is to inspire hope and improve the quality of life for heart patients and their families through ongoing peer-to-peer support. Mended Heart volunteers visit heart patients at Summa Akron City Hospital and also provide patients with support online and by phone. Call **330.334.1236** for more information.

Barberton

Caring Hearts Support Group

Caring Hearts is a free support group for heart failure (HF) patients and their families held at Summa Barberton Hospital. Call **888.720.5318** for more information.

Summa Health Heart & Vascular Institute

SHHVI physicians provide nationally-recognized, comprehensive cardiovascular services to patients in northeast Ohio. With more than 40 cardiologists, cardiothoracic and vascular surgeons spanning more than a dozen

convenient locations, SHHVI has the largest cardiovascular team in the region and offers a comprehensive list of cardiovascular services. Patients receive the right care, at the right time, from the right provider.

