

For more information about cardiovascular services at Somerset Medical Center, visit somersetmedicalcenter.com/heart or call 908-685-2947.

SOMERSET MEDICAL CENTER is a nationally accredited, regional medical center providing comprehensive emergency, medical/surgical and rehabilitative services and a broad range of community programs to Central New Jersey residents.

The medical center is a major clinical affiliate of UMDNJ – Robert Wood Johnson Medical School and a clinical research affiliate of The Cancer Institute of New Jersey.



Somerset

MEDICAL CENTER

110 Rehill Avenue
Somerville, NJ 08876-2598



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Cardiovascular SERVICES

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Somerset
MEDICAL CENTER

Testing Services

Electrocardiograms (ECG) – This test, which takes about 5 minutes, records the electrical rhythm of the heart.

Cardiac Monitoring

- **Event Monitoring** – For this test, you will carry a small monitoring device for two weeks. When a symptom occurs, you will be asked to hold the device against your chest to store your heart rhythm. Then you'll call a toll-free phone number and play the recording to a technician, who will notify the doctor immediately if there is a concern. Our cardiologist will review the information collected and a final report will be sent to your doctor.
- **Memory Loop Event Monitoring** – For this test, you will wear a small monitoring device with two wires, called leads, for two weeks except when bathing. This device will constantly record your heart rhythm. When you feel a symptom or a strange feeling in your chest, press a button on the recorder and it will freeze the recording back 2 minutes and forward 1 minute, capturing 3 minutes of information. You'll then call a phone number and transmit this information, and reset the device for the next event. At the end of two weeks a cardiologist will review the results and a report will be sent to your doctor.
- **Holter Monitor Service** – During this test, you will wear a monitoring device that records the heart's rhythm for 24 hours. You'll keep a diary of what you do during the day. A cardiologist will review the results and a report will be sent to your doctor.

Pacemaker Service

If you have a pacemaker, you can have it checked in the convenience of your home by using a phone. A program box will be given to you to use with your phone when calling to make a routine pacemaker check. A database will compare how the pacemaker is working to the programmed settings. A cardiologist will review the results and a report will be sent to your doctor.

Stress Tests

- **Cardiac Stress Test** – This test takes about 30 minutes. Wires will be placed on your chest to monitor your heart's rhythm. You will be asked to walk on a treadmill for up to 9 minutes while a doctor monitors your blood pressure, heart rate and heart rhythm.
- **Nuclear Stress Test** – This test is similar to the cardiac stress test, with the addition of a nuclear scan. A small amount of nuclear substance will be injected into your bloodstream, allowing your doctor to track blood cells

as they circulate from the arteries to the heart muscle. For comparison, scans are taken before and after exercise. This four-part test takes 3 to 4 hours.

- *IV Non-Exercise Nuclear Stress Test* – This test is similar to the Nuclear Stress Test, but is for those who are unable to exercise or are taking certain beta blockers. Intravenous (IV) medication is used to mimic the effects of exercise on your heart while a machine monitors your blood pressure, heart rate, heart rhythm and pulse oximetry.
- *Stress Echo* – This test combines ultrasound images with a stress test. Images of your heart are taken before, during and after exercise, and are studied with stress test results to provide information about your heart's circulation and help detect any problems.
- *IV Non-Exercise Stress Echo* – This test is similar to the stress echo, but is for patients who can't walk on a treadmill. This type of stress echo uses IV medication to gradually increase heart rate.

Cardiac Ultrasound Testing

- *Two-Dimensional Echo Imaging, Color Flow and Doppler* – Using ultrasound, this test evaluates the function of the heart muscle. A non-invasive ultrasound beam will send back a signal when it hits a moving structure, such as your heart. Pictures will be taken, and colored maps will help find unusual blood flow patterns. You also may need a Cardiac Doppler test to measure how fast blood cells are moving through your heart valves or chambers.
- *Transesophageal Echocardiogram (TEE)* – This diagnostic test looks at your heart's structure through a camera sent down your throat. A cardiologist performs the procedure, and a cardiology nurse will monitor your symptoms throughout the test, which takes 10 to 20 minutes. You'll be given anesthesia during the test and may go home two to four hours afterward.
- *3-D Cardiac Ultrasound* – This test will provide a live, three-dimensional image of your heart similar to the Two-Dimensional Echo Test, but more complex.

Tilt Table Testing

This test is used to find the cause of syncope, or fainting. You will be asked to lie on a table for baseline blood pressure, heart rate and heart rhythm, and then will be tilted upright 80 degrees. During the test, you will be monitored for symptoms and changes in your blood pressure, heart rate or heart rhythm. You may be given a dose of medication to mimic dehydration. The test lasts between 60 and 90 minutes.

ICD Check

This test allows your doctor to check the functioning of your implantable cardioverter defibrillator (ICD). Your doctor and a nurse will monitor your

symptoms throughout the procedure, and a representative from the ICD's manufacturer will record information from the device. For your comfort, anesthesia is given throughout the test, which lasts about 10 minutes. You may go home approximately 2 hours after the test.

Cardioversion

This test is for those with a heart rhythm in atrial fibrillation. During the test, a cardiologist and nurse will use a defibrillator to deliver an electrically synchronized shock while monitoring your blood pressure, heart rate, heart rhythm and pulse oximetry. You'll be given anesthesia during the test, which takes 10 to 15 minutes. Discharge time varies with each cardiologist. Sometimes this test is done along with a Transesophageal Echocardiogram (TEE), which is used to check that there are no blood clots in your heart's right apical chamber.

To schedule an appointment, call 908-685-2947. After your appointment is scheduled, please call Pre-Registration at 908-704-3745 or visit our Web site to register online.

The Vascular Laboratory

The Vascular Laboratory at Somerset Medical Center offers state-of-the-art ultrasound and Doppler technology to test for diseases of the blood vessels, including peripheral artery disease and carotid artery disease. All tests are performed outside the body and are painless.

- Carotid Ultrasound or Carotid Doppler looks at arteries in the neck.
- Arterial Doppler/Pulse Volume Recording (PVR) of the Upper and Lower Extremities uses a blood pressure cuff to test circulation in the arteries.
- Venous Duplex/Ultrasound looks at veins in the arms or legs.
- Transcranial Duplex/Ultrasound looks at arteries in the brain.
- Aorta/Arterial Duplex/Ultrasound looks at the aorta in the heart or other arteries to find an aneurysm in the abdomen, arms or legs.
- Renal Duplex/Ultrasound looks at arteries in the kidneys.
- Laser Doppler uses a tiny low-power laser to measure the pressure of the arteries to learn how fast wounds in the arms or legs will heal.

The Vascular Laboratory also performs testing for men's health problems such as erectile dysfunction (ED).

To schedule an appointment, call 908-685-2949. After your appointment is scheduled, please call Pre-Registration at 908-704-3745 or visit our Web site to register online.

Cardiac Catheterization Laboratory



Cardiac catheterization is the “gold standard” test that cardiologists use to detect coronary artery disease, birth defects or defective heart valves. Somerset Medical Center’s Cardiac Catheterization Laboratory is one of the most active labs in the state.

How is a Cardiac Catheterization performed?

Cardiac catheterization, also known as an angiogram, is used to look at blood flow to the heart. It allows doctors to view live videos of a patient’s heart and nearby arteries. This digital imaging helps doctors learn if blood vessels, valves and chambers are working properly.

Most cardiac catheterizations are done as same-day, outpatient procedures, meaning that you will not have to sleep at the medical center. You will be awake during the procedure, but will be sedated. A thin tube, called a catheter, will be threaded through an incision in your leg into the artery leading to your heart. A dye is then injected into the catheter, which illuminates the heart and its vessels on an X-ray machine. After the test is completed, the catheter will be removed and you’ll recuperate at the hospital for about three hours.

What is an Emergency Angioplasty?

Patients having a heart attack are brought to the Cardiac Catheterization Laboratory to have their arteries opened through emergency angioplasty. During the procedure, a balloon is inserted into the blocked artery through a catheter. The balloon is then inflated and deflated to clear the obstructions, and mesh tubes, or stents, are inserted to keep the artery open.

The Cardiac Catheterization Laboratory is on the second floor of the medical center. For more information, call 908-685-2402 or visit somensetmedicalcenter.com/heart.

Primary Stroke Center

A stroke occurs when the blood supply to a part of the brain is suddenly interrupted. There are two types: ischemic stroke, which is caused by blood clots or other particles, and hemorrhagic stroke, which is caused by bleeding.

As a Primary Stroke Center certified by The Joint Commission and designated by the N.J. Department of Health and Senior Services, the Stroke Center at Somerset Medical Center quickly diagnoses strokes and tailors care to patients' needs. Following the diagnosis of a stroke, a personalized treatment plan will be developed.

To expand its ability to treat neurological disorders, Somerset Medical Center is building the Edward and Anita Hogan Neuroscience Pavilion. The pavilion will provide care for patients suffering from stroke, multiple sclerosis, Parkinson's disease, brain tumors and seizure disorders.

For more information about the Stroke Center, visit somersetmedicalcenter.com/stroke or call 908-704-3776.

Critical Care Services

Somerset Medical Center's 28-room Critical Care Pavilion provides around-the-clock care to our most ill patients. It includes:

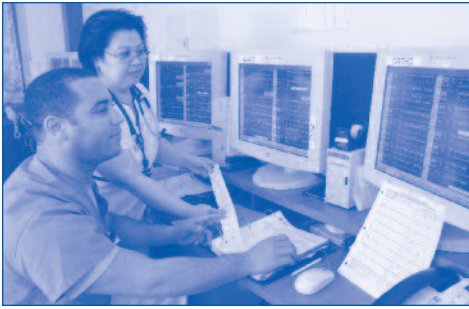
- The Intensive Care Unit (ICU), which is designed for critically ill patients who either need surgery, are healing from surgery or need specialized care
- The Coronary Care Unit (CCU), which cares for patients healing from heart attacks or patients with heart disease
- The Intermediate Care Unit (IMCU) or Progressive Care, which provides a "step-down" level of care for patients who no longer need to stay in the ICU or CCU, but still need specialized care.



The pavilion features state-of-the technology. Patient monitors are linked by computer to other areas of the medical center, including the Emergency Department and the Operating Suite, so doctors can constantly view their patients' vital signs. Even the beds are specialized, with built-in safety features to alert the staff if a patient needs assistance.

Cardiac Pavilion/Chest Pain Center/Telemetry Unit

The Chest Pain Center/Telemetry Unit, located on the 2nd floor in the Cardiac West and East Pavilions, is Somerset Medical Center's cardiac monitoring unit.



Telemetry is an advanced system that lets us watch patients' heart rhythms continuously from a monitoring station even as patients walk around the unit. Patients wear portable transmitters that send information to monitoring screens watched by trained staff 24 hours a day.

Cardiac Rehabilitation

Somerset Medical Center's Cardiac Rehabilitation Program helps heart patients improve their strength, decrease stress and learn more about their condition.

Patients who have had a heart attack, coronary bypass surgery, angioplasty, valve replacement, a heart transplant, or those who have had stable angina can benefit from rehabilitation. A referral from a cardiologist or primary care doctor is necessary to participate.

Phase I starts at bedside and provides information about possible reasons why you developed a heart condition and how to stay healthy and safe once you are home.

During Phase II, the outpatient phase, patients exercise two or three times a week in Somerset Medical Center's Rehabilitation Department, located on the 2nd floor. Patients exercise at a low intensity to make sure they can handle the pace, and are connected to a portable monitoring system. Patients and their families may watch videos and read information about many heart-health topics. In addition, patients are encouraged to go to monthly nutrition, medication and stress management classes.

Phase III is for patients who want to continue exercising after graduating from the monitored program. Conducted at Somerset Medical Center's Sports Performance and Rehabilitation Center at TD Bank Ballpark in Bridgewater, the program features a variety of monthly classes to help patients stay fit while maintaining their heart health.

For more information about cardiac rehabilitation services, call 908-685-2453 or visit somersetmedicalcenter.com/heart. For information about Phase III Cardiac Rehabilitation, call 908-203-5972 or visit somersetsportperformance.com.