

Healthcare Practitioners and Technicians

Cardiovascular Technologists and Technicians

Cardiovascular Technologists and Technicians review physician's charts and notes on patients, monitor patients' heart rates, operating testing equipment, explain tests and procedures to patients, and compare test findings to a standard in order to identify any problems. Cardiovascular technologists can specialize in invasive cardiology, or non-invasive cardiology, which includes echocardiography and vascular technology.

Those who specialize in invasive cardiology are called cardiology technologists. Cardiology technologists who specialize in invasive techniques work inside the body doing procedures such as catheterization. Catheterization is where a catheter (or a small tube) is placed inside the body, in this case the leg, and fed through arteries into the heart. Catheterization is done to diagnose and treat heart problems without having to resort to open heart surgery. Technologists who specialize in this area position the patient on the examination table, shave, clean, anesthetize the patients' leg, monitor the patients' blood pressure and heart rate using EKG equipment, and inform the physician if something appears to be wrong according to EKG readings.

Non-invasive technologists specialize in areas that do not require working inside the patients' body. There are two areas to specialize in, echocardiography and vascular technology. Echocardiographers use ultrasound to capture images of the patients' heart and blood vessels while the patient is at rest or moving, occasionally administering medication to those who are moving in order to examine how the patients' heart functions. Vascular technologists assist physicians in diagnosing circulation disorders. They compile a patients' medical history, evaluate heart rate, blood pressure, and blood flow through veins and arteries by listening to flow sounds, and make sure that the proper tests have been ordered. They then provide a summary of their finding to the physician. These tests are typically performed during or after surgery. Cardiographic technicians specialize in EKG, stress, and Holter monitoring testing.

Cardiovascular technologists and technicians spend a lot of time on foot and heavy lifting may be involved in order to move equipment or transfer patients. Those who work in catheterization laboratories may face stressful working conditions because they are in close contact with patients with serious heart ailments. Technologists and technicians generally work a 40-hour week that may include weekends. Those in catheterization laboratories tend to work longer hours and may work evenings or be on call.

Education/Training

How to Obtain:

To become a cardiovascular technologist, vascular technologist, or cardiac sonographer one must complete a two year program accredited by the Commission on Accreditation of Allied Health Professionals (CAAHEP). Programs are typically found at community colleges and result in an associate's degree. For those who want to study echocardiography or vascular sonography, one may attend an accredited cardiovascular technologist program or a CAAHEP accredited medical sonography program.

For those who wish to become EKG technicians, on-the-job training by an EKG supervisor or cardiologist is all that is required. On-the-job training lasts anywhere from 4 - 6 weeks, with training preference given to those who already hold jobs in the healthcare field. On-the-job training for Holter monitoring lasts anywhere from 18 - 24 months. One year certificate programs also exist for those basic EKGs, Holter monitoring, and stress testing.

Becoming credentialed is voluntary but most employers require credentialing for their employees. Credentialing for cardiovascular technologists is available from Cardiovascular Credentialing International (CCI) or the American Registry of Diagnostic Medical Sonographers (ARDMS). Requirements for credentialing through CCI vary depending on which credential you are applying for, by typically requires an associate degree and training experience. Credentialing through ARDMS requires:

- Graduation from an accredited two year program
- Clinical experience (whether gained through school or on-the job)
- Passing their national examination

More Information on Training and Credentialing:

- Cardiovascular Credentialing International (CCI):
<http://www.cci-online.org/>
- Commission on Accreditation of Allied Health Professionals (CAAHEP):
<http://www.caahep.org/>
- American Registry of Diagnostic Medical Sonographers (ARDMS):
<http://www.ardms.org/default.asp?ContentID=1&menubar=1>

Average Costs:

ARDMS Testing Fee: \$200, plus the cost of any exam study aids

CCI Testing Fees range between \$160 and \$385, in addition to the cost of any exam study aids. Price depends upon the certification that is being obtained.

Costs of continuing education vary.

* Note: This figure does not include federal, state, or university financial aid resources such as grants, fellowships, scholarships or work study. It also does not include vocational rehabilitation or other state resources available specifically to people with disabilities. The out-of-pocket expense may be significantly less.