

Diagnostic Instrumentation and Services

*Cardiovascular Technologist/Technician,
Electroneurodiagnostic Technologist, Perfusionist*



Cardiovascular Technologist/Technician, Electroneurodiagnostic Technologist

Cardiovascular Technologist/ Technician

JOB DESCRIPTION

Cardiovascular technologists and technicians help physicians in diagnosing and treating heart and blood vessel diseases and disorders. Most technologists and technicians can be found in one of the following special categories.

AREAS OF SPECIALIZATION

Cardiovascular Technologists – trained to perform diagnostic tests and provide interventional procedure support for treatment of heart or vascular ailments. They primarily work in the cardiac catheterization laboratory.

Cardiopulmonary Technologists – sometimes referred to as cardiovascular technologists, they are trained to perform diagnostic tests for diagnosis and treatment of heart, lung, and blood vessel ailments.

Echocardiograph Technicians – sometimes known as diagnostic cardiac sonographers, they

perform ultrasounds on the heart to assist the physician in the diagnosis of disease and to conduct studies of the heart.

Electrocardiograph Technician – sometimes referred to as ECG or EKG technicians, they are trained to conduct an electrocardiogram (ECG or EKG), which measures the heart's electrical impulses and provides data to help determine the existence of a heart ailment.

WORK ENVIRONMENT

Cardiovascular technologists and technicians are employed wherever cardiovascular testing and treatment is performed. All hospital cardiology departments, cardiologist offices, cardiac rehabilitation centers, and diagnostic centers need experienced technical workers to perform tests ranging from the rudimentary to the most complex. The majority of technologists and technicians work a 40-hour workweek, with some evening and weekend shifts as needed.

ANNUAL WAGES

National	\$37,419
New York State	\$40,934

National and New York State median annual earnings for 2003. U.S. Department of Labor, Bureau of Labor Statistics.

Electroneurodiagnostic Technologist

JOB DESCRIPTION

Electroneurodiagnostic technologists, sometimes known as electroencephalographic or EEG technologists, use an EEG machine to measure electrical activity of a patient's brain waves to assist in diagnosing brain and nervous system disorders such as brain tumors, strokes, and epilepsy.

AREA OF SPECIALIZATION

Polysomnographic Technician – uses a polysomnograph to measure electrical activity of the brain waves to assist the physician in diagnosing and treating sleep disorders.

WORK ENVIRONMENT

The majority of electroneurodiagnostic technologists are employed in hospital neurology departments. Neurologic doctors' and surgeons' offices, diagnostic sleep centers, mental health facilities, and health

maintenance organizations (HMOs) also hire EEG experts. Most technologists, with the exception of some hospital and sleep center employees, will work a 40-hour workweek, and they may be on call to work evenings, weekends, or holidays. Testing is usually conducted in a laboratory setting, although hospital patients often have personal visits from technologists in their hospital room.

ANNUAL WAGES

Starting Salary	\$30,562
Overall Average	\$44,621

Salary ranges for 2003. American Medical Association.

ACADEMIC REQUIREMENTS

Depending on the employer, training on the job or prior work experience in other areas of the hospital may be sufficient to qualify for most technologist positions. Some facilities require their electroneurodiagnostic technologists to have passed a community college or hospital based formal training program. Graduates of approved formal programs, which are usually one or two years, receive associate degrees or

ACADEMIC REQUIREMENTS

The minimum required is a high school diploma or equivalent. Most technicians receive training on the job, although some one-year certificate programs and some two-year junior or community college programs exist. Some employers prefer to train individuals with a background in the health care field. Those qualified in a related allied health profession need to complete one year of specialized instruction. Cardiovascular technologists require specialized instruction and must complete two to four years of study in an accredited community or junior college. Upon completion of the field of study and/or appropriate training, voluntary credentialing is often required.

PROFESSIONAL ORGANIZATIONS

Alliance of Cardiovascular Professionals
American Registry of Diagnostic Medical Sonographers
Cardiovascular Credentialing International

For professional organization address and phone information see Appendix B.

EDUCATIONAL INSTITUTIONS

For a listing of educational programs in New York State for Diagnostic Instrumentation and Services see page 16.

certificates. Qualified applicants can receive the credential "Registered EEG Technologist" and "Registered Evoked Potential Technologist." Polysomnographic technologists receive their credentials through the Association of Polysomnographic Technologists.

PROFESSIONAL ORGANIZATIONS

American Board of Registration for
Electroencephalographic Technologists
American Society of Electroneurodiagnostic
Technologists, Inc.
Association of Polysomnographic Technology
Joint Review Committee on Electroneurodiagnostic
Technology

For professional organization address and phone information see Appendix B.

EDUCATIONAL INSTITUTIONS

For a listing of educational programs in New York State for Diagnostic Instrumentation and Services see page 16.

Perfusionist

Perfusionist

JOB DESCRIPTION

Perfusionists set up and operate equipment that controls and regulates the functions of the heart and lungs during surgery or respiratory failure. They work closely with physicians to monitor a patient's life support during a variety of medical procedures. Perfusionists may administer blood products, anesthetic agents, or drugs when necessary. They are knowledgeable about the varied equipment that is used in these procedures, as well as the circulation and respiratory systems of the human body.

WORK ENVIRONMENT

Perfusionists work in hospitals, in physicians' private practices, and in health maintenance organizations (HMOs). A 40-hour workweek is standard, but occasionally they are called during emergency situations on weekends and nights.

ANNUAL WAGES

Starting Salary\$50,000-\$63,000

Overall Average\$65,000-\$79,000

Salary ranges for 1998. American Medical Association.

ACADEMIC REQUIREMENTS

To become a perfusionist, individuals must complete an educational program accredited by the Commission on Accreditation of Allied Health Education Programs and pass an examination by the American Board of Cardiovascular Perfusion (ABCP). Training takes one to two years depending on program design and the student's qualifications. All programs either require a bachelor's degree prior to admission or award a bachelor's degree upon completion of the program.

PROFESSIONAL ORGANIZATIONS

American Board of Cardiovascular Perfusion
Alliance for Cardiovascular Professionals
American Society of Extracorporeal Technology
Cardiovascular Credentialing International

For professional organization address and phone information see Appendix B.

EDUCATIONAL INSTITUTIONS

For a listing of educational programs in New York State for Diagnostic Instrumentation and Services see page 16.

*New York State Educational Institutions***NEW YORK STATE EDUCATIONAL
INSTITUTIONS WITH PROGRAMS IN
DIAGNOSTIC INSTRUMENTATION
AND SERVICES**

*(For New York State educational institution address
and phone information, see Appendix A.)*

Hudson Valley Community College

Long Island University-C W Post Campus

New York University

State University of New York College of Agriculture
and Technology at Cobleskill

State University of New York Health Science Center
at Syracuse

Ultrasound Diagnostic School

Molloy College

*Source: U.S. Department of Education – Integrated
Postsecondary Education Data System
(www.nces.ed.gov/ipeds/) and the New York State Area
Health Education Center System Data Resource Center,
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