







# **Practice Areas**

If you've ever had an x-ray, you've probably met a radiologic technologist. But did you know radiologic technologists can specialize in different practice areas?

# Radiography

Radiographers use radiation (x-rays) to produce 2D, grayscale images of a patient's anatomy. These images are produced digitally with state-of-the-art equipment.



# **Computed Tomography**

CT technologists use a rotating x-ray unit to observe "slices" of anatomy within the body and view the inside of organs layer by layer. These images can create a 3D representation of the anatomy of interest.

# Mammography

Mammographers produce diagnostic images of breast tissue using specialized x-ray equipment. These 2D or 3D images are used as a screening tool to detect breast cancer.



# Magnetic Resonance Imaging

MR imaging technologists are specially trained to operate equipment that uses radiofrequency pulses and a powerful magnetic field to create detailed 2D and 3D images of anatomy.

# **Interventional Radiography**

Vascular and cardiac interventional technologists use sophisticated imaging techniques to guide interventional tools through blood vessels and other body systems, treating medical conditions internally.



# Nuclear Medicine Technology

Nuclear medicine technologists administer radiopharmaceuticals into the body and use special cameras to detect emitted radiation and produce images of organs, tissues and bone to reveal their function or identify tumors.

#### **Bone Densitometry**

Bone densitometry technologists use low-dose x-ray equipment to measure bone mineral density to evaluate bone loss due to osteoporosis and to estimate a patient's risk of fracture.



#### **Radiation Therapy**

Radiation therapists administer targeted doses of radiation to a patient's body to treat cancer or other diseases.

# **Medical Dosimetry**

Under the supervision of a medical physicist, medical dosimetrists determine how much radiation will be delivered to a tumor site in accordance with the radiation therapy treatment plan developed by a radiation oncologist.

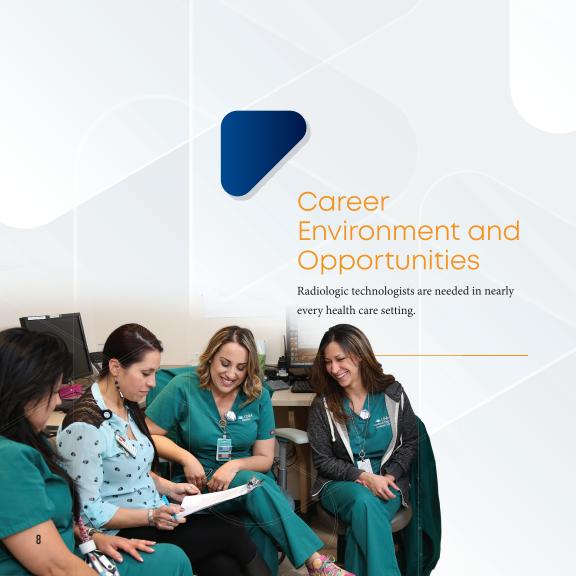


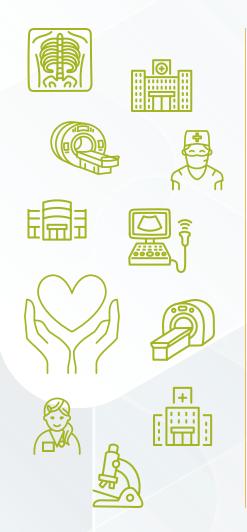
#### Sonography

Sonographers use high-frequency sound waves to obtain images of organs and tissues in the body. Images can be produced in 2D, 3D and 4D.

# **Radiologist Assistant**

Radiologist assistants are experienced, registered radiographers who have obtained additional education and certification that qualifies them to serve as radiologist extenders.





#### You can work at

a hospital
an outpatient or pain clinic
a physician's office
an imaging center
an urgent care center

# You can specialize in

prenatal care pediatrics orthopedics neuroradiology breast health oncology

#### You can become

a traveling technologist
a lead technologist or supervisor
a department manager
an educator
an equipment manufacturer representative
an imaging informatics professional





#### **Associate Degree**

Two Years

Community colleges

Technical schools

Hospital-based programs



#### **Bachelor's Degree**

Four Years

Universities

Colleges

There are more than 1,000 accredited radiologic technology programs in the United States. For a list of programs near you, visit the websites below.



American Registry of Radiologic Technologists

arrt.org



Joint Review Committee on Education in Radiologic Technology

jrcert.org



Joint Review Committee on Educational Programs in Nuclear Medicine Technology

jrcnmt.org



Joint Review Committee on Education in Diagnostic Medical Sonography

jrcdms.org





# In your program you will study

patient care anatomy and physiology radiation physics and protection biological effects of radiation image production imaging procedures

# You will learn to operate

modern imaging or therapeutic equipment specialized computer software

# You'll develop your skills in

accurate and compassionate patient care effective communication critical thinking teamwork





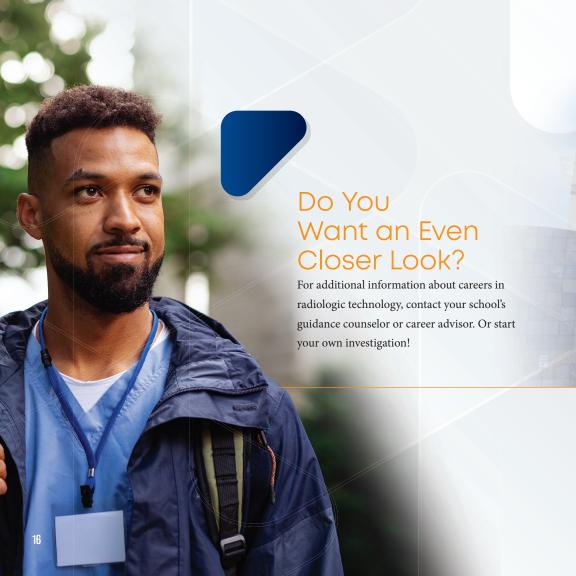
# **Average Full-time Salary\***

Entry-level radiographers \$56,050 Entry-level radiation therapists \$77,515

\* Data from ASRT 2022 Salary Survey. asrt.org/SalarySurvey.

With experience, advanced education or supervisory responsibilities, salaries range from \$85,500 to \$137,000, depending on practice area.

In addition to full-time positions, many employers offer radiologic technologists flexible schedules, including part time or evenings, and on-call pay or incentives.





#### Visit the profession's largest membership association to learn more.

American Society of Radiologic Technologists **asrt.org/careers** 

R.T. 101 Introduction to Medical Imaging and Radiation Therapy Modalities

asrt.org/RT101



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