

Medical Radiation Technologists

Description

This unit group includes technologists who operate radiographic and radiation therapy equipment to administer radiation treatment and produce images of body structures for the diagnosis and treatment of injury and disease. They are employed in hospitals, cancer treatment centres, clinics, radiological laboratories, colleges and universities. Medical radiation technologists who are supervisors or instructors are included in this unit group.

Duties:

- Radiological technologists
 - Perform quality control checks on radiographic and film processing equipment
 - Provide appropriate care and monitoring of the patient during the radiographic examination, explain procedures, position patient and equipment and apply radiation protection measures, record and process patient data
 - May train and supervise student radiographers or supervise other technologists.
 - Radiological technologists may specialize in areas such as computerized tomography, angiography, mammography, magnetic resonance imaging, or interventional radiology
- Nuclear medicine technologists
 - Prepare and administer radiopharmaceuticals to patients or to biological samples
 - Operate radiation detection equipment, such as gamma cameras, scanners and ionization chambers, to acquire data for nuclear medicine physicians in the diagnosis of disease
 - Perform diagnostic procedures using radioactive materials on biological specimens
 - Record and process results of procedures
 - Check equipment to ensure proper operation, apply radiation protection measures
 - Provide appropriate care and monitoring of the patient during the examination
 - May train and supervise students or supervise other nuclear medicine technologists.
- Radiation therapists
 - Operate linear accelerators, cobalt 60, X-ray and other radiation therapy equipment to administer radiation treatment prescribed by radiation oncologists
 - Assist radiation oncologists and clinical physicists with radiation treatment plan
 - Assist in the preparation of sealed radioactive materials and the construction of devices
 - Provide care and monitoring of the patient's physical and psychological well-being during treatment; explain procedures and side effects of radiation
 - May train and supervise students or supervise other radiotherapy technologists.

Other titles:

- Diagnostic imaging technologist
- Medical radiographer
- Nuclear magnetic resonance imaging (NMRI) technologist
- Radiation oncology technician
- X-ray technician

(Government of Canada National Occupation Classification)

Skills

Verbal communication	Dexterity	Technology	Attention to detail	Time management
	Able to work independently	Physical stamina	Critical thinking	

Education/Training Requirements

Ontario Secondary School Diploma (OSSD)

- Most college/university programs in Ontario require an OSSD or Mature Student Status

Post-secondary diploma/degree

- Completion of a two- to three-year college, hospital, or other approved program in diagnostic radiography or magnetic resonance imaging, nuclear medicine technology, or radiation therapy OR:
- A bachelor's degree of health sciences in radiography, nuclear medicine, or radiation therapy AND a period of supervised practical training

Certification

- Certification by the Canadian Association of Medical Radiation Technologists is required
- Licensure with the College of Medical Radiation Technologists of Ontario

Potential Earnings in Durham Region

The average and median wages and salaries for individuals employed as medical radiation technologists are as follows. Place of Residence (POR) is defined as individuals who reside within the Durham Region. Place of Work (POW) is defined as individuals who are employed within the Durham Region.

Median Wages and Salaries (POW)	Average Wages and Salaries (POW)	Median Wages and Salaries (POR)	Average Wages and Salaries (POR)
\$69,653	\$69,698	\$79,475	\$79,067

Employment Prospects

Industry (NAICS)	Jobs in Durham Region (POW)	Durham Region Residents Employed (POR)
6215 Medical and diagnostic laboratories	40	60
6220 Hospitals	180	260

(Ministry of Advanced Education and Skills Development 2016 data in Durham Workforce Authority's 2017 Sector Report)

Additional Resources

- Canadian Association of Medical Radiation Technologists: <http://www.camrt.ca/>
- The College of Medical Radiation Technologists of Ontario: <https://www.cmrto.org/>