

Medical Radiation Technologists

A guide for newcomers to British Columbia



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1. Working as a Medical Radiation Technologist

[NOC 2021: 32121/ NOC 2016: 3215]

Job Description

Medical radiation technologists operate radiographic and radiation therapy equipment to give radiation treatment and produce images of body structures for the diagnosis and treatment of injury and disease. These technologists are divided into three groups: radiological technologists, nuclear medicine technologists and radiation therapists.

Radiological technologists:

- Operate X-ray, radiographic and fluoroscopic equipment, computerized tomography (CT) scanners, mammography units, and magnetic resonance imaging (MRI) to produce radiographs or anatomic images of the human body for the diagnosis by radiologists of disease or injury
- Prepare patients and provide appropriate care including radiation protection measures for medical tests
- Perform basic verification and quality control checks on radiographic and film processing equipment
- May train and supervise students or other radiological technologists

Nuclear medicine technologists:

- Prepare radiopharmaceuticals such as radionuclides and give them to patients or biological samples

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- Operate radiation detection equipment, such as gamma cameras, scanners, scintillation counters, tomodensitometers and ionization chambers to acquire data for use by nuclear medicine physicians in the diagnosis of disease
- Record and process the results of procedures, check equipment to make sure it operates properly, provide appropriate care for patients during examinations and apply radiation protection measures
- Do diagnostic procedures using radioactive materials on biological specimens, such as blood and urine

Radiation therapists:

- Operate linear accelerators, cobalt 60, X-ray and other radiation therapy equipment to give radiation treatment prescribed by radiation oncologists
- Check radiation therapy equipment to make sure it operates properly and help radiation oncologists and clinical physicists with preparation of radiation treatment plans
- Help prepare sealed radioactive materials such as cobalt, radium, cesium and isotopes
- Help build devices such as plaster casts and acrylic moulds to assist with radiation treatments
- Monitor patients' physical and psychological well-being during the entire course of treatment and advise patients regarding the side effects of radiation
- May train and supervise students or other radiotherapy technologists.

Sources:

- WorkBC Career Profile for Medical Radiation Technologists
<https://www.workbc.ca/plan-career/explore-careers> [search Medical radiation technologists]
- *Career Cruising* database (Profiles for "Medical Imaging Tech," "Nuclear Medicine Technologist" & "Radiation Therapist")
Available from the VPL Digital Library
<https://www.vpl.ca/digital-library/career-cruising/>

Industry Overview

Industry sources report that there are currently shortages for medical radiation technologists throughout the Lower Mainland and on Vancouver Island.

The growing demand for health-care services will increase opportunities for medical radiation technologists. Population growth, an aging population, and technological advances in diagnosis and treatment are contributing to the demand for X-rays, CT, MRI, nuclear medicine tests and other diagnostic procedures.

Those seeking employment in hospital settings are advised that full-time positions are difficult to acquire when starting a career; however, there will be plenty of on-call and part-time opportunities.

Job Outlook in BC, 2021-2031

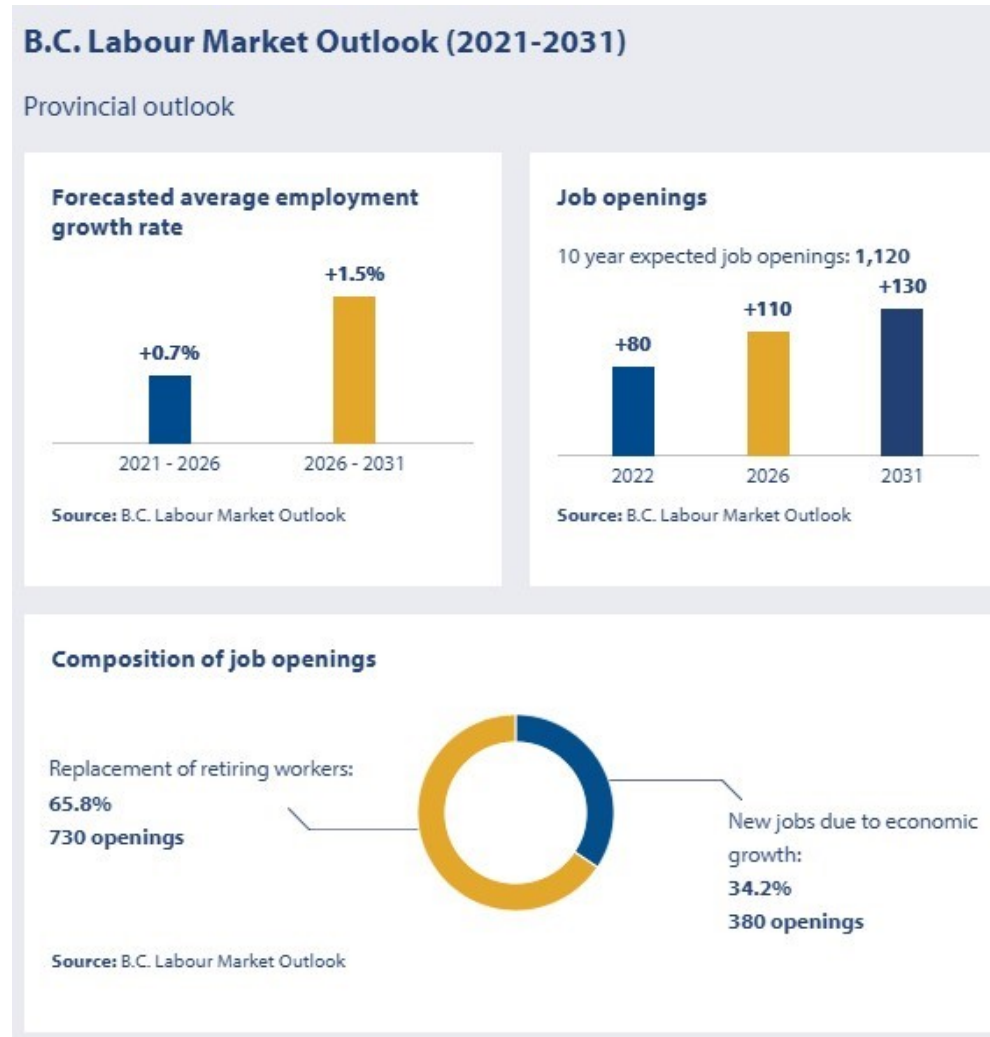


Chart from WorkBC

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WorkBC provides job openings in BC regions from 2021-2031

Region	Employment in 2021	Average Annual Employment Growth 2021-2031	Expected Number of Job Openings 2021-2031
Vancouver Island / Coast	660	1.1%	250
Lower Mainland / Southwest	1,750	1.3%	650
Thompson-Okanagan	460	1.2%	160
Kootenay	80	0.2%	20
Cariboo	140	-0.4%	10
North Coast & Nechako	80	-0.5%	10
Northeast	30	-0.3%	0

You can learn more about working in BC from the following sources:

- WorkBC Career Profile for Medical Radiation Technologists
<https://www.workbc.ca/plan-career/explore-careers> [search Medical radiation technologists]
- *Career Cruising* database (Profiles for “Medical Imaging Tech,” “Nuclear Medicine Technologist” & “Radiation Therapist”).

Available from the VPL Digital Library

<https://www.vpl.ca/digital-library/career-cruising/>

Types of Employers

Medical radiation technologists are employed in hospitals, cancer treatment centres, clinics, radiological laboratories, research and education facilities, and in equipment sales and service and training.

Salary

In BC, the median annual salary for **medical radiation technologists** is \$80,296.

Medical imaging techs can earn between \$40,000 and \$95,000 a year.

Nuclear medicine technologists can earn between \$45,000 and \$95,000 a year.

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Radiation therapists can earn anywhere from can earn from \$50,000 to around \$100,000 a year.

In addition to their salaries, full-time employees usually receive benefits, including paid sick leave and vacation time, and dental coverage. Technicians often belong to unions. This means that your wage rate and benefits are negotiated on your behalf by union representatives.

Sources: WorkBC & Career Cruising

In BC regions, **medical radiation technologists** can expect to make:

Community/Area	Wages (\$/hour)		
	Low	Median	High
British Columbia	29.00	38.50	43.00
Cariboo Region	29.00	38.00	52.00
Kootenay Region	N/A	N/A	N/A
Lower Mainland–Southwest Region	29.00	38.50	43.00
Nechako Region	N/A	N/A	N/A
North Coast Region	N/A	N/A	N/A
Northeast Region	N/A	N/A	N/A
Thompson–Okanagan Region	29.00	38.50	43.00
Vancouver Island and Coast Region	28.00	37.04	42.85
Canada	25.00	36.00	45.00

Chart: Job Bank Wage Report

<https://www.jobbank.gc.ca/trend-analysis/search-wages>

Working Hours

Medical radiation technologists typically work 37 to 40 hours per week. For those working in hospitals shift work, evenings and weekends is common. You can often expect to be on call in case of an emergency. Opportunities for part-time work are also available.

Source: WorkBC

2. Skills, Education and Experience

Skills

- extremely detail oriented
- ability to work effectively as part of a team
- excellent communication skills (to both co-workers and patients)
- ability to work compassionately with patients who have acute illnesses
- good physical stamina
- interest in science and technology

Education and Experience

- Completion of a two- to three-year college, hospital or other approved program in diagnostic radiography (for radiological technologists), nuclear medicine technology (for nuclear medicine technologists) or radiation therapy (for radiation therapists)
- Some workers may have a bachelor of health sciences degree in radiography, nuclear medicine or radiation therapy.
- A period of supervised practical training is usually required.

Qualifications

This occupation is not regulated in British Columbia.

Although this occupation is non-regulated in British Columbia, employers generally require certification and registration with the Canadian Association of Medical Radiation Technologists (CAMRT) and/or British Columbia Association of Medical Radiation Technologists (BCAMRT).

To attain full-practice membership or registration in the profession, you must write and pass the Canadian Association of Medical Radiation Technologists (CAMRT)

- CAMRT certification exam information at <https://www.camrt.ca/>

You may then register with the provincial association, the British Columbia Association of Medical Radiation Technologists (BCAMRT) which also allows you to obtain membership in the national CAMRT.

- BCAMRT registration information at <https://www.camrt.ca/bc/>

International Applicants

Internationally Educated Medical Radiation Technologists must apply for an assessment of their education credentials, language fluency and work experience through Canadian Association of Medical Radiation Technologists (CAMRT) before they can apply to write the certification exam.

Further information can be found at:

- ***Internationally Educated Medical Radiation Technologists***
<https://www.camrt.ca/certification-4/internationally-educated-medical-radiation-technologists-iemrts>
- ***Orientation Course for Internationally Educated Health Professionals (IEHP)***
<https://www.camrt.ca/certification-4/internationally-educated-medical-radiation-technologists-iemrts/orientation-course-for-internationally-educated-health-professionals-iehp/>

3. Finding Jobs

You'll find job advertisements in local newspapers and electronic sources, as well as through professional associations' publications.

Local Newspapers

You can look at the *Vancouver Sun* & *The Province* at Vancouver Public Library for free. Check the job postings daily, the careers section in the *Vancouver Sun* on Wednesdays and Saturdays and, in *The Province* on Sundays.

Online Job Postings

- **BC's Provincial Health Authorities**
BC's health authorities provide health services in all BC regions
 - **Vancouver Coastal Health Authority**
<https://careers.vch.ca/>
 - **Fraser Health Authority**
<https://jobs.fraserhealth.ca/jobs>
 - **Interior Health Authority**
<https://www.interiorhealth.ca/careers/Pages/default.aspx>
 - **Northern Health Authority**
<https://careers.northernhealth.ca/>
 - **Provincial Health Services Authority (PHSA)**
<http://www.phsa.ca/careers>
 - **Island Health Authority**
<https://www.islandhealth.ca/careers>
- **First Nations Health Authority**
<https://www.fnha.ca/about/work-with-us>
- **BC Health Careers | Job Search**
<https://www.bchealthcareers.ca/#job-search>
- **Allied Health Jobs BC**
<https://alliedhealthjobsbc.ca/>
- **Indeed.ca**
https://ca.indeed.com/advanced_search

Professional Associations' Career Resources

- **British Columbia Association of Medical Radiation Technologists (BCAMRT)**
<https://www.camrt.ca/bc/resources/job-listings/>
Job postings available to BCAMRT members only

Medical Radiation Technologists *A guide for newcomers to British Columbia* **Identifying the Right Position**

When you browse job advertisements, you'll find a range of different job titles that are relevant.

For medical radiation technologists, look for these related job titles:

- CT technologist
- magnetic resonance imaging (MRI) technologist
- mammography technician
- nuclear medicine technologist
- radiation therapist
- radiography technologist
- radiotherapy technician

Source: Job Bank Canada <https://www.jobbank.gc.ca/marketreport/occupation/18255/BC>

Creating a List of Potential Employers

You can use directories to produce lists of hospitals, clinics, and laboratories in Vancouver or the Lower Mainland. Contact them directly to find out if they're hiring.

- **Directory of Canadian Healthcare Personnel**

Available at the Central Library
362.11025 C21a

- **Guide to Canadian Health Care Facilities**

Available at the Central Library
362.105 C212ca

- **Reference Canada**

<https://www.vpl.ca/digital-library/reference-canada>

Click on "Start Search" beside Canadian Businesses, then select the "Advanced Search" button. Select both "Keyword/SIC/NAICS" under Business Type and "City" under Geography. In the top search box enter "laboratories" and click SEARCH. Select the appropriate headings. Lower down, select the Province, choose the cities, and click the "View Results" button.

Available from the VPL Digital Library

NOTE: You can access this database from a Library computer. If you are using a computer from outside the Library, you will need a Vancouver Public Library card to

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login to this database. After clicking on the database name, you will be asked to enter your library card number and PIN (usually last four digits of your telephone number).

4. Applying for a Job

In Canada, employers usually expect to receive a resume (curriculum vitae) and a cover letter that identifies the position you are applying for and summarizes your relevant experience.

Use the library catalogue, <https://vpl.bibliocommons.com/> to find books on writing resumes and cover letters specific to your industry.

To learn about applying for jobs in Canada, use the following guides which are available in print at the Central Library or online at <https://www.vpl.ca/siic/>.

- **Writing Resumes and Cover Letters**
<https://www.vpl.ca/siic/guide/job-search-resources/writing-resumes-and-cover-letters>
- **Getting Canadian Work Experience**
<https://www.vpl.ca/siic/guide/job-search-resources/getting-canadian-work-experience>
- **Networking for Employment**
<https://www.vpl.ca/siic/guide/job-search-resources/networking-for-employment>
- **Learn More About Working in BC and Canada**
<https://www.vpl.ca/siic/guide/job-search-resources/learn-more-about-working-in-bc-and-canada>

5. Getting Help from Industry Sources

Industry Associations

Medical radiation technologist associations in BC and Canada provide assistance and information on training and certification. Registration and fees are required for membership.

- **BC Association of Medical Radiation Technologists (BCAMRT)**
<https://www.camrt.ca/bc/>
- **Canadian Association of Medical Radiation Technologists**
<https://www.camrt.ca/>
<https://www.imageofcare.ca/>

Industry Journals

Search for journals related to your profession. Examples include:

- **Journal of Medical Imaging and Radiation Sciences**
<https://www.jmirs.org/>

**Questions? Please ask the Information Staff in the Central Library,
Vancouver Public Library or telephone 604-331-3603.**

*Please note that the information in this guide is also available online through the
Skilled Immigrant InfoCentre website at <https://www.vpl.ca/siic>.*