

Application for Registration

As a Medical Radiation Technologist for a person who has completed an educational program outside Canada



College of
Medical Radiation
Technologists of
Ontario

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Ordre des
technologues en
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de l'Ontario

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NUCLEAR MEDICINE

IMPORTANT INFORMATION

- You must be registered with the College of Medical Radiation Technologists of Ontario (CMRTO or the College) in order to work as a medical radiation technologist in Ontario.
- The CMRTO is responsible for protecting the public by ensuring that all registered medical radiation technologists in Ontario are qualified to practise and are practising professionally.
- There are four different specialty certificates of registration with the CMRTO – radiography, nuclear medicine, radiation therapy and magnetic resonance. **This application is for the specialty of nuclear medicine.** Both your professional education and work experience must have been in the specialty you are applying for. If you wish to apply in a different specialty, you must complete the application for that specialty. If you wish to apply for more than one specialty, you must complete an application for each specialty.
- You may not use the title “Medical Radiation Technologist” or the abbreviation “M.R.T.”, or represent that you are qualified to practise in any specialty of medical radiation technology, without being registered with the CMRTO.
- All applications from internationally trained medical radiation technologists must undergo an assessment process. This means that the Registration Committee of the CMRTO will review your educational program(s) and experience in medical radiation technology to determine if you meet the requirements for registration with the CMRTO. Please review the *Career Map for Internationally Trained Medical Radiation Technologists* for more details and an explanation of the process.
- Send the completed form, documents, application fee and evaluation fee to the College at the address above.
- Any documents which are not in English or French must be accompanied by an official translation into English. The translation does not need to be notarized but must be official and a notarized copy of the original document must be attached.
- If the name on any of your documents is different from your current name, you must provide proof of name change.
- You may wish to make a copy of your completed application for your records.
- The CMRTO does not accept incomplete application forms. If your application is not complete, it will be returned to you with a list of items that are missing. The College does not keep any incomplete application forms.
- You may contact the College if you have any questions about completing your application.

PERSONAL INFORMATION

Complete this section as directed. If the name on any of your documents is different from your current name, attach proof of name change.

| | | | |
|---|------------------------------|----------------------------|--|
| <input type="checkbox"/> Mr. | <input type="checkbox"/> Ms. | Surname | |
| Given name | | | |
| Previous surname(s) if applicable | | Birth date: Month/Day/Year | Sex <input type="checkbox"/> M <input type="checkbox"/> F |
| Mailing address | | | |
| City | Province | Postal Code | Country |
| Telephone number | | Email address | |
| Name to appear on Certificate of Registration | | | |

APPLICATION FEE AND EVALUATION FEE

The fee for submitting an application for registration with the CMRTO is \$395.50 (\$350.00 fees, \$45.50 HST). The application fee of \$100.00 is for the processing of your application and is non-refundable, regardless of the outcome of the application process. The evaluation fee of \$250.00 is for the evaluation of your educational program by the College's Registration Committee and is also non-refundable. Payment must be made in Canadian funds by cheque, international money order, money order or credit card. Make cheque or money order payable to the College of Medical Radiation Technologists of Ontario (CMRTO). If you are paying by credit card (Visa or MasterCard), please complete and submit the credit card payment form to the College. The credit card payment form is available on the College website (www.cmrto.org). The College does not accept payment in currencies other than Canadian Dollars.

- Attach application fee and evaluation fee (\$395.50 Canadian)

You must provide evidence to the CMRTO that you have successfully completed a program in medical radiation technology in the specialty of nuclear medicine and provide independent verification of the details of your educational program. Independent verification is best supplied by an original or notarized copy of your credential, an original or notarized copy of your academic transcript of marks, and an official curriculum of your program.

If your program required you to first complete another post-secondary educational program or courses prior to entering your program in medical radiation technology in the specialty of nuclear medicine (e.g. a Bachelor of Science, a medical radiation technology program in another specialty, or pre-requisite college or university courses or credits), you must also provide independent verification of the details of the pre-requisite program.

You must provide a detailed curriculum or course outline for your program, certified by your educational institution or professional association. Your curriculum or course outline should contain a detailed list of the courses and a description of the content of each course completed during your education and training, including the amount of time (clock hours) spent in both the theoretical and clinical components.

If you are unable to provide the original or notarized copy of your credential(s), or your academic transcript(s) of marks, or an official curriculum of your program(s), the Registration Committee of the CMRTO may accept other evidence, such as an original letter from your educational institution, depending on the circumstances. Please contact the CMRTO if you are unable to provide the original or notarized copies of your documents.

The Registration Committee will review your educational program(s) in medical radiation technology in the specialty of nuclear medicine, and determine whether or not your program(s) meets the registration requirement of being substantially similar to, but not equivalent to, an approved Ontario medical radiation technology program in nuclear medicine. In the past when assessing a program, the CMRTO Registration Committee has considered the following:

1. Level of educational program and program credential achieved

- i. The level of the educational program: For example, post-secondary school, college or university
- ii. The credential achieved: For example, degree, diploma or joint degree/diploma in nuclear medicine

2. Theoretical education and clinical training completed

- i. The nature and content of the **theoretical education** completed. Examples of such courses and the content include:

- **Biological sciences:** anatomy, cross-sectional/relational anatomy, physiology, pathology, pharmacology
- **Radiation sciences:** physics, chemistry, mathematics, radiation physics, radiation science
- **Nuclear medicine instrumentation, theory and operation:** scintillation spectrometers, gamma cameras, bone densitometer, gas-filled detectors, dose calibrators, positron emission tomography (PET) scanners, SPECT gamma cameras, computers and ancillary devices, related laboratory equipment, and fundamentals of computed tomography (CT)
- **Image acquisition, display, networking, archival and retrieval:** image/data analysis, picture archiving communication system (PACS), digital manipulation, quality control
- **Nuclear medicine methodology:** radiopharmaceuticals, pharmacokinetics, generator elutions, radiation assay testing, preparation of radiopharmaceuticals, radiolabels, labeling blood products, radiopharmaceutical quality control, calculate activity and volume of radiopharmaceutical, laboratory safety procedures, nuclear medicine imaging, molecular imaging, radiation therapy
- **Radiation protection and safety:** radiobiology, radioactive material disposal, storage and handling of radioactive materials, personal radiation monitoring devices, ALARA principle, radiation surveys, decontamination procedures, disposal of radioactive waste
- **Patient care:** administering radiopharmaceuticals by injection or inhalation, infection control, aseptic techniques, emergency response procedures, physiological monitoring, assessment of patient's condition, responding to patient's physical and psychological needs, contraindications, consent, post-procedural care, IV & IM injection, ECG placement
- **Behavioural sciences:** written communication skills: records and reporting, interpersonal communication skills, health legislation and professional practice, health care systems and ethical issues, research methodology

- ii. The nature and content of the **clinical training** completed. Examples include:

- The names and types of facilities where the clinical training was completed
- Whether the clinical training was supervised and the qualifications of the supervisor
- Types of patients on whom procedures were performed during the clinical training: pediatric, geriatric, ambulatory, non-ambulatory, emergency, with chronic and acute illnesses
- Types of nuclear medicine instruments used during clinical training: scintillation spectrometers, gamma cameras, bone densitometer, gas-filled detectors, dose calibrators, positron emission tomography (PET) scanners, single positron emission tomography (SPECT) scanners, computers and ancillary devices, related laboratory equipment, PET/CT, SPECT/CT
- Types of procedures completed during clinical training: cardiovascular system (gated equilibrium rest, gated equilibrium stress, gated equilibrium SPECT, myocardial perfusion non-gated SPECT, myocardial perfusion gated SPECT, myocardial perfusion pharmacological SPECT, red cell mass/plasma volume); central nervous system (cerebral perfusion brain scan SPECT, cerebral perfusion brain scan planar, blood brain barrier brain scan, CSF cisternogram, CSF leak); endocrine system (thyroid scan, thyroid uptake, thyroid therapy for hyperthyroidism, parathyroid (MIBI), adrenal); gastrointestinal system (RBC liver scan, hepatobiliary scan, salivary scan, hepatobiliary pharmacological intervention, gastric emptying (solid),

schilling test, gastroesophageal reflux, gastrointestinal bleed, meckel's diverticulum, liver spleen scan (colloid), C-14 urea breath test); genitourinary system (renal functional scan, renal scan pharmacological intervention, glomerular filtration rate (blood GFR)); respiratory system (perfusion scan, ventilation scan, quantitative ventilation lung scan (Xenon), quantitative perfusion lung scan); skeletal system (3 phase local bone scan, whole body bone scan, bone scan SPECT); tumor/inflammatory/lymph (gallium scan, white blood cell scan, tumor imaging (iodine), gallium SPECT, sentinel node imaging)

- Types of quality control procedures completed during clinical training: floods, COR's, etc.
- Types of radiopharmaceutical preparation completed during training: generator elution preparation of cold kits, quality control of kits, inventory control, etc.
- Types of patient care procedures performed during clinical training: administering radiopharmaceuticals by injection and inhalation, infection control, aseptic techniques, emergency response procedures, physiological monitoring, assessment of patient's condition, responding to patient's physical and psychological needs, assessment of contraindications to the procedure, ensuring consent and post-procedural care.

3. Depth and breadth of theoretical education and clinical training completed

- The length of the program(s) in medical radiation technology in the specialty of nuclear medicine, such as: years, months or weeks, the start and completion date, and whether the program was full or part-time studies
- The total number of clock hours spent in theoretical instruction and the total number of clock hours spent in clinical training

The documents that you attach to your application must provide sufficient level of detail in order that the CMRTO Registration Committee can assess your educational program to determine whether it is substantially similar to an Ontario approved program in medical radiation technology in the specialty of nuclear medicine. If you have any difficulties in obtaining these documents, please contact the CMRTO office.

| | | |
|--|--------------------------------------|---|
| Educational program in medical radiation technology: | Degree/Certificate/Diploma obtained: | Start and completion date of program to |
| Educational institution for theoretical instruction: | Country: | Start and completion date of theoretical instruction: to |
| Training institution for clinical training: | Country: | Start and completion date of clinical training: to |

- Attach a notarized copy of your degree, certificate or diploma in medical radiation technology in nuclear medicine or provide an original letter from your educational institution confirming successful completion of the program
- Attach an original or notarized copy of your academic transcript of marks
- Attach a copy of the curriculum or course outline for your nuclear medicine program, certified by the educational institution or professional association

If you also completed a pre-requisite post-secondary educational program or courses prior to entering your program in medical radiation technology in the specialty of nuclear medicine, you must:

- Attach a notarized copy of your degree, certificate or diploma for the pre-requisite post-secondary educational program or courses, or provide an original letter from your educational institution confirming successful completion of the program
- Attach an original or notarized copy of your academic transcript of marks for the pre-requisite post-secondary educational program or courses
- Attach a copy of the curriculum or course outline for your pre-requisite post-secondary educational program or courses, certified by the educational institution or professional association

CERTIFICATE IN MEDICAL RADIATION TECHNOLOGY

List any license or registration that you held to authorize you to work as a technologist in medical radiation technology in the country or state where you previously worked. Attach a copy of your license or certificate as a technologist in medical radiation technology.

| | |
|----------------------------|---------------------------|
| License/registration held: | Organization/Association: |
| Province/State: | Country: |

- Attach a copy of your certificate, registration or license.

CLINICAL COMPETENCE

This documentation is used to demonstrate your competence to practise as a medical radiation technologist in the specialty of nuclear medicine. Complete the list of procedures for nuclear medicine on page 6 of this form by indicating which procedures you have performed independently during the course of your **most recent or current employment** and the date you last performed those procedures. You must sign the attestation to state that the information is true and you must have your last or current direct clinical supervisor sign the validation of supervisor. Your clinical supervisor should be someone who supervised your daily procedures—either another technologist who practises medical radiation technology in the specialty of nuclear medicine, or a radiologist or other physician. If you have never been employed as a medical radiation technologist, please indicate such.

In the past, the CMRTO Registration Committee has considered whether:

- i. the list of procedures performed by the applicant are similar to those performed by MRTs in the specialty of nuclear medicine in Ontario
 - ii. the applicant's direct clinical supervisor has provided confirmation that the applicant is competent in the procedures listed, and
 - iii. the applicant has performed the procedures listed within the five years prior to the date of registration by the CMRTO
- Attach the Certificate Respecting Clinical Competence signed by your direct clinical supervisor in your most recent or current place of employment.

WORK HISTORY AS A TECHNOLOGIST IN MEDICAL RADIATION TECHNOLOGY IN THE SPECIALTY OF NUCLEAR MEDICINE IN THE LAST FIVE YEARS

List the name and address of all your employers within the last five years and include the exact start and finish dates. Attach a letter of confirmation of employment as a technologist practising medical radiation technology in the specialty of nuclear medicine from your most recent or current employer. The letter must confirm the **last date of employment**. If it is over five years since you last worked as a technologist practising medical radiation technology in the specialty of nuclear medicine, include your most recent employer. If you have not been employed as a medical radiation technologist in the specialty of nuclear medicine, please indicate such in the space below.

| Start/Finish dates of employment: | Employer's name: | Supervisor's name: | Employer's address and telephone number: |
|-----------------------------------|------------------|--------------------|--|
| to | | | |
| to | | | |

- Attach a letter of confirmation of employment as a technologist practising medical radiation technology in the specialty of nuclear medicine from your last or current employer confirming the last date of employment.

DECLARATION OF CONDUCT

You are required to answer these questions by indicating the true answer. If you answer yes to any of the questions, you must provide details of the offence or occurrence on a separate piece of paper. You will be required to confirm that you meet these requirements again immediately prior to a certificate of registration being issued.

Have you been convicted of a criminal offence or an offence related to the regulation of the practice of medical radiation technology? Yes No

Have you been the subject of a finding of professional misconduct, incompetency or incapacity in relation to the profession or another health profession, either in Ontario or in another jurisdiction? Yes No

Are you currently the subject of a proceeding for professional misconduct, incompetency or incapacity in relation to the profession or another health profession, either in Ontario or in another jurisdiction? Yes No

LANGUAGE FLUENCY

You are required to demonstrate that you are able to speak and write either English or French with reasonable fluency. The CMRTO Registration Committee accepts the following as proof of language fluency:

- Either
- i) Proof from your educational institution that your program in medical radiation technology was conducted in English or French,
- Or
- ii) Proof of completion of one of the following:
 - the internet-based (iBT) TOEFL (Test of English as a Foreign Language) with a minimum total score of 73, and a minimum score of 21 in speaking; or
 - the paper-based TOEFL with a minimum score of 500, and TSE with a minimum score of 40; or
 - the IELTS (International English Language Testing System) test - academic (AC) with a minimum overall score of 6 and a minimum score of 6 in speaking; or

- the IELTS (International English Language Testing System) test - general training (GT) with a minimum overall score of 6 and a minimum score of 6 in speaking; or
- the MELA (Michener English Language Assessment) test with a minimum score of 8 in each of reading, listening and speaking and a minimum score of 7 in writing.

Are you able to speak and write reasonably fluently in English so that you can offer professional services to patients in that language? Yes No

Are you able to speak and write reasonably fluently in French so that you can offer professional services to patients in that language? Yes No

Would you prefer to receive documentation and services from the College in English or French? English French

Attach either:

Proof from your educational institution that your program (including the theoretical and clinical components) and examination in medical radiation technology was conducted in English or French;

OR

Proof of completion of TOEFL, TSE (if applicable), IELTS or MELA with the minimum scores indicated above.

Comments:

CITIZENSHIP

You are required to be a Canadian citizen, **OR** a permanent resident, **OR** authorized under the Immigration and Refugee Protection Act (Canada), (formerly the Immigration Act (Canada)) to engage in the practice of medical radiation technology.

a) Are you a Canadian citizen? Yes No

If you are a Canadian citizen, attach a copy of your birth certificate if born in Canada or proof of Canadian citizenship

b) Are you a permanent resident of Canada? Yes No

If you are a permanent resident of Canada, attach a copy of your permanent resident card or certificate of landing

c) Are you authorized under the Immigration and Refugee Protection Act (Canada) to engage in the practice of the profession? Yes No

If you are authorized to engage in the practice of the profession under the Immigration and Refugee Protection Act (Canada), attach a copy of your work permit.

If you are applying for immigration to Canada, you may still apply for registration with the College. Therefore, you may apply for registration from outside Canada. Please explain the situation of your immigration status in the comments section below.

Attach a copy of your birth certificate if born in Canada, proof of Canadian citizenship, certificate of landing or permanent resident card, or work permit.

If any of these documents are in another name, you must provide proof of name change.

Comments:

SIGNED CONFIRMATION

All applicants are required to sign and date the application form to indicate that all the information in the application and related documents is true.

"I certify that all the information in the above application and related documents is true. I acknowledge and understand that any false or misleading statement, representation or declaration in or in connection with my application, by commission or omission, is cause for revocation of any certificate of registration with the College of Medical Radiation Technologists of Ontario which may be granted to me. I also acknowledge and understand that the College of Medical Radiation Technologists of Ontario collects, uses and discloses personal information about me for regulatory purposes in accordance with the Regulated Health Professions Act, 1991 and the Medical Radiation Technology Act, 1991 and for the purposes described in the CMRTO's Privacy Code, including for the purpose of human resource planning and demographic, research and other studies. I authorize the College of Medical Radiation Technologists of Ontario to contact any authority, institution, association, body or person in any jurisdiction to verify the statements in my application and related documents and authorize any such authority, institution, association, body or person to release to the College any information relevant to the information set out in this application and related documents. I also authorize the CMRTO to advise the Canadian Association of Medical Radiation Technologists of the outcome of the CMRTO application process, whether I am successful or not."

Applicant's signature:

Date: (month/day/year)

CERTIFICATE RESPECTING CLINICAL COMPETENCE – NUCLEAR MEDICINE

List all the nuclear medicine procedures you have performed independently in your employment as a medical radiation technologist in the specialty of nuclear medicine, the frequency each procedure was performed and the date on which each of the procedures was last performed.

| Procedures: | Date last performed | Frequency that procedure was performed: | | |
|---------------------------------------|---------------------|---|----------------------|-------------------------|
| | | Less than once per month | 1-20 times per month | over 20 times per month |
| Myocardial imaging | | | | |
| Gated equilibrium | | | | |
| Cardiac stress testing | | | | |
| Brain imaging | | | | |
| CSF/shunt | | | | |
| Thyroid uptake and scan | | | | |
| Parathyroid | | | | |
| Adrenal | | | | |
| Radioactive iodine therapy | | | | |
| Liver/spleen | | | | |
| Hepatobiliary | | | | |
| GI bleed | | | | |
| Gastric emptying | | | | |
| Urea breath test | | | | |
| Renal imaging | | | | |
| Renal with pharmacologic intervention | | | | |
| Ventilation/perfusion lung scan | | | | |
| 3-phase bone imaging | | | | |
| Total body bone imaging | | | | |
| Bone mineral densitometry | | | | |
| Tumor imaging | | | | |
| Inflammation/infection imaging | | | | |
| SPECT imaging | | | | |

Other Procedures:

| | | | | |
|---|--|--|--|--|
| Instrumentation quality control | | | | |
| Radiation safety procedures | | | | |
| Infection control procedures | | | | |
| Radiopharmaceutical preparation and quality control | | | | |
| Administration of radiopharmaceuticals (IV, orally, inhalation) | | | | |
| Computer processing and analysis | | | | |
| Non-imaging/benchtop | | | | |

List Nuclear Medicine Equipment Used:

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Validation of competence:

"I hereby certify that I have been trained to perform, am competent to perform and performed in my employment the specific procedures set out above, within the time frame indicated."

| | |
|------------------------|-------|
| Applicant's signature: | Date: |
|------------------------|-------|

Validation by supervisor:

"I hereby certify that the applicant has competently performed all of the specific procedures listed above, that all the information contained in the above list of procedures and certificate is true and correct and that I am/was the direct clinical supervisor of the applicant. I hereby acknowledge that the College of Medical Radiation Technologists of Ontario will be relying upon this validation as evidence of the applicant's competent practice in the specified procedures listed above."

Stamp or seal of facility:

| | |
|-------------------------|---------------------------------|
| Supervisor's signature: | Print name: |
| Name of facility: | Title of supervisor: |
| Date signed: | Telephone number of supervisor: |