Diagnostics and Therapeutics

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A. Occupations

1) Respiratory Therapist (RT)
   - Regulated health profession in Ontario - College of Respiratory Therapists of Ontario
     www.crto.on.ca
   - To obtain certification in Ontario, graduates must pass a provincial written examination with the College of Respiratory Therapists of Ontario (CRTO) and may write the national written exam with the Canadian Board for Respiratory Care (CBRC) to work in other provinces. Successful candidates earn the Registered Respiratory Therapist (RRT) credential.

Role
Source: Hamilton Health Care Centre, Occupational Fact Sheets
Assisting physicians in the diagnosis, treatment and care of patients with breathing disorders.
   - Assisting anesthesiologists in the operating room
   - Assisting in cardiopulmonary resuscitation (CPR) and support
   - Assisting in high risk births
   - Maintaining an open airway for trauma, intensive care, and surgery patients
   - Stabilizing high-risk patients being moved by air or ground ambulance
   - Providing life support for patients who can't breathe on their own

Source: http://www23.hrds-drhc.gc.ca/2001/e/groups/3214.shtml
Respiratory therapists perform some or all of the following duties:
   - Perform diagnostic tests, such as arterial blood gas analysis and cardiopulmonary functions tests
   - Operate and monitor respiratory equipment to administer treatments such as oxygen, oxygen-air mixtures, humidified air or medications
   - Operate, monitor, maintain and test a variety of diagnostic and therapeutic equipment
   - Assess patients and perform or assist with interventions such as airway maintenance, line insertions, inductions and intubations
   - Perform artificial respiration and external cardiac massage
   - Participate in home care programs for chronic respiratory patients and provide patient and family education
Educational Requirements

- Three year community college diploma program (i.e., Algonquin, Canadore, Fanshawe, Michener colleges etc.) The programs include one year of clinical practice training in a teaching hospital.
- Several universities in Canada offer four-year respiratory therapy degrees.

Source: Hamilton Health Care Centre, Occupational Fact Sheets

- With further study, career advancement may lead respiratory therapists to teaching, management, research, consulting positions or professional practice.
- Some respiratory therapists choose to advance in their role in the operating room by going back to school to become a Perfusionist or to take a course in Asthma Educators or COPD Educators and work in a clinic.

Skills/Qualities

Technical

- Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge
- Ability to operate, troubleshoot and monitor respiratory equipment

Communication

- Excellent oral and written communication skills

Other

- Excellent problem recognition and problem solving-skills
- Excellent organizational skills
- Ability to multi-task
- Ability to work well under intense pressure
- Good physical and mental health
- Compassion and an interest in caring for others
- Critical thinking skills
- Excellent interpersonal skills -
- Ability to work effectively independently and in a team
- Enjoy using equipment to perform tasks requiring precision, having clear guidelines and organized methods, and helping people
- Ability to keep up with the latest medical technologies

For more information on what is expected see Ministry of Training Colleges and Universities Respiratory Therapy Program Standard
http://www.edu.gov.on.ca/eng/general/college/progstan/health/respi.html

Typical Employers

Source: http://www.crto.on.ca/pdf/background.pdf

- Of the approximately 2,000 RTs in Ontario, the majority work in acute/critical care settings.
- RTs also work in home care, diagnostics, research, rehabilitation, medical sales/service, teaching and patient education.
- Since hospitals work on a continuous basis, they may work nights, evenings or weekends. Therapists working in emergency or intensive care units or in patients' homes may experience high levels of stress.
- Other employers include medical clinics, health clinics, health units, extended-care facilities and public health centers.
• In large urban hospitals, therapists may work in emergency departments, intensive care units, intensive care nursery units, chronic cardiopulmonary disease units, outpatient departments, operating theatres and recovery rooms, medical and surgical floors, pediatric units, caserooms and newborn nurseries, pulmonary functions and blood-gas diagnostic areas or in rapid transport of critically ill patients.

**Average Hourly Wage**
$23.51/ hour (average) $34.90/ hour (high)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

**Are there assistant positions in the field of RT?**
There are no non-regulated assistant positions in the field of respiratory therapy.

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**2) Cardiopulmonary Technologist**
- Cardiopulmonary Technologist is not a regulated health profession in Ontario
- However, registration with the Canadian Association of Cardio-Pulmonary Technologists (C.A.C.P.T.) [http://www.cacpt.ca/theorgan.html](http://www.cacpt.ca/theorgan.html) will likely be required

**Role**

Cardiopulmonary technologists perform some or all of the following duties:
- Perform diagnostic tests, such as pulmonary function and asthma stress, or assist physicians with cardiac and cardiopulmonary stress tests and bronchoscopies
- Determine patients' blood characteristics such as activated clotting time and oxygen saturation
- Operate, monitor, maintain, calibrate and test diagnostic and therapeutic equipment
- Monitor patient and advise physician of any changes in patient condition
- Prepare medications and administer inhaler and other treatments under supervision of cardiologist
- Provide information and care for patients during tests
- Assist with the preparation of cardiac catheterization room, prepare specialized catheters and assist cardiologists during catheterization
- Perform analysis, programming and monitoring of implanted devices such as pacemakers and defibrillators during surgery
- Supervise and train students and other cardiopulmonary technologists
- Provide technical support for research.

**Educational Requirements**
- Cardiopulmonary technologists require a minimum of a diploma in an allied health discipline such as respiratory therapy, nursing diploma or degree, or a degree in a related science and training through a post-diploma program or supervised on-the-job clinical training.
  - Source: [http://www.cacpt.ca/educatio.html](http://www.cacpt.ca/educatio.html)
  At this present time there is no formal school of training for Pulmonary Technology. Inspite of this there are a number of courses that are available at various institutions (i.e., Michener Institute) to help the candidate to prepare for the CACPT National Pulmonary Registry Exam.

**Skills/Qualities**
*Technical*
• Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge
• Operate, monitor, maintain, calibrate and test diagnostic and therapeutic equipment

Communication
• Excellent oral and written communication skills

Other
• Ability to work independently in a sophisticated laboratory environment
• Ability to maintain accurate and detailed records of all studies and related activities
• Excellent problem recognition and problem solving-skills
• Excellent organizational skills
• Ability to multi-task
• Ability to work well under intense pressure
• Good physical and mental health
• Compassion and an interest in caring for others
• Critical thinking skills
• Excellent interpersonal skills
• Ability to work effectively independently and in a team
• Enjoy using equipment to perform tasks requiring precision, having clear guidelines and organized methods, and helping people
• Ability to keep up with the latest medical technologies

Typical Employers
• Cardiopulmonary Technologists are usually employed in hospitals
• The remaining jobs are mostly in offices of physicians, including cardiologists; or in medical and diagnostic laboratories, including diagnostic imaging centers

Average Hourly Wage
$23.51/ hour (average)    $34.90/ hour (high)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

3) Cardiovascular Perfusion Technologist
• Not a regulated health profession in Ontario
• However, certification of the Canadian Society of Clinical Perfusion may be required
  http://www.cscp.ca/

Role
Cardiovascular Perfusion Technologist perform some or all of the following duties:
• Assemble, maintain and operate extracorporeal circulation equipment, intra-aortic balloon pumps and other heart assist devices to support or temporarily replace patients' cardiopulmonary functions during open-heart surgery
• Administer blood products, drugs and other substances through heart-lung machines and other devices as directed by cardiac surgeons and anaesthetists
• Monitor vital signs to maintain patients' physiological functions during cardiopulmonary surgery
• Supervise and train student clinical perfusionists and other clinical perfusionists.
Educational Requirements
• Cardiovascular Perfusion Technologist require the completion of a respiratory therapy or registered nursing program with a minimum of one year of work experience as a respiratory therapist or registered nurse; or completion of a college or university program in clinical perfusion.
• A Cardiovascular perfusion post-diploma program (16 months) is offered at the Michener Institute for Applied Health Sciences.

Skills/Qualities
Technical
• Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge
• Operate, monitor, maintain, calibrate and test equipment

Communication
• Excellent oral and written communication skills

Other
• Excellent problem recognition and problem solving-skills
• Excellent organizational skills
• Ability to multi-task
• Ability to work well under intense pressure
• Good physical and mental health
• Compassion and an interest in caring for others
• Critical thinking skills
• Excellent interpersonal skills
• Ability to work effectively independently and in a team
• Enjoy using equipment to perform tasks requiring precision, having clear guidelines and organized methods, and helping people
• Ability to keep up with the latest medical technologies

Typical Employers
• Cardiovascular Perfusion Technologists are primarily employed in hospitals and cardiac surgery centres

Average Hourly Wage
$23.51/ hour (average) $34.90/ hour (high)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

4) Anesthesia Technologist (Anesthetist Assistant)
• Anesthesia Technologist is a not a regulated profession in Ontario

Role
Source: http://www.michener.ca/ce/postdiploma/anesth_tech.php
• The Anesthesia Technologist is a valuable member of the anesthesia team who works closely with the anesthetist during surgery.
• Their primary role is to provide technical support for complex anesthesia equipment and maintain the patient's pre-, intra-, and post-operative airway.
• They also monitor the patient's hemodynamic status, blood, fluid and pharmacological therapy.
Educational Requirements
• A graduate certificate program is currently under development by Michener Institute
  www.michener.ca/ce/postdiploma/anesth_tech.php

Skills/Qualities
Technical
• Basic computer skills: word processing, internet, email, presentation programs, spreadsheet
  manipulation and database knowledge
• Operate, monitor, maintain, calibrate and test equipment

Communication
• Excellent oral and written communication skills

Other
• Excellent problem recognition and problem solving-skills
• Excellent organizational skills
• Ability to multi-task
• Ability to work well under intense pressure
• Good physical and mental health
• Compassion and an interest in caring for others
• Critical thinking skills
• Excellent interpersonal skills
• Ability to work effectively independently and in a team
• Enjoy using equipment to perform tasks requiring precision, having clear guidelines and
  organized methods, and helping people
• Ability to keep up with the latest medical technologies

Typical Employers
• Anesthesia Technologists work in anesthesia departments in many facilities
• they also work in other areas of the hospital, including the operating and post-operative care
  areas, labour and delivery, emergency and intensive care.

Average Hourly Wage
$23.51/hour (average) $34.90/hour (high)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of
company, size of city, etc.

5) Cardiovascular Technologist/Technician, ECG Technician
(i.e., ECG, Holter monitoring, Stress test, Pacemaker follow-up)

• Cardiovascular Technologist is a not regulated health profession in Ontario
• However, certification of the Cardiovascular Technology Association of Ontario (CTAO) as well
  as the National Certification Examination administered by the Canadian Society of Cardiology
  Technologists (CSCT) www.csct.ca may be required

Role
Source: http://www.mohawkcollege.ca/dept/fachshs/cvtp.html
• A Cardiovascular Technician is a highly trained professional well versed in the non-invasive
  testing of cardiovascular disorders.
• Assists physicians in cardiac diagnosis by performing such cardiovascular tests as 12 Lead ECG, Holter Ambulatory Monitoring, Stress Testing and Pacemaker follow-up

Training/Education
• 1 year, post-secondary certificate program (i.e., CDI college, Mohawk college, etc.)

Skills/Qualities
Technical
• Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge
• Operate, monitor, maintain, calibrate and test equipment

Communication
• Excellent oral and written communication skills

Other
• Strong organizational skills
• Ability to multi-task
• Interpersonal skills - have a pleasant, relaxed manner for putting patients at ease
• Able to follow detailed instructions
• Ability to work effectively independently and in a team
• Ability to work well under pressure
• Good physical and mental health
• Compassion and an interest in caring for others

Typical Employers
• Cardiovascular technicians/technologists find employment in cardiac investigation services provided by hospitals, cardiovascular clinics, doctors’ offices, medical laboratories and Holter scanning centres.

Average Hourly Wage
$19.96/ hour (average)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

6) Ultrasonographer (general, vascular, cardiac)
• Not a regulated health profession in Ontario
• However, most employment settings require their sonographers to be registered with the American Registry of Diagnostic Medical Sonographers http://www.ardms.org/ or Canadian Association of Registered Diagnostic Ultrasound Professionals (CARDUP) http://www.cardup.org/english/position.html
• Note that CARDUP is in the process of developing Canadian certification exams.

Role
Source: http://www23.hrdc-drhc.gc.ca/2001/e/groups/3216.shtml
Ultrasonographers perform some or all of the following duties:
• Operate ultrasound imaging equipment that transmits high frequency sound pulses through the body to produce images of those parts of the body requiring examination
• Monitor examination by viewing images on video screen, to evaluate quality and consistency of diagnostic images, and make adjustments to equipment, as required
• Record, store and process scanned images by using camera unit connected to ultrasound equipment
• Observe and care for patients throughout examinations to ensure patient safety and comfort
• Prepare examination reports for physicians to aid in the monitoring of pregnancies and the diagnosis of cardiac, abdominal, ophthalmic, vascular and other disorders

Educational Requirements
• Training programs in diagnostic sonography are offered in Ontario in English at the Michener Institute of Applied Health Sciences (16 months) and Mohawk-McMaster Institute for Applied Health Sciences (1 year)
• A program is offered in French at Boréal College (1 year)
• Courses are offered through private colleges as well

Skills/Qualities
Technical
• Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge
• Operate, monitor, maintain, calibrate and test complex ultrasound equipment
• Efficiently operate ancillary devices such as cameras, video recorders, key pads

Communication
• Excellent oral and written communication skills

Other
• Ability to determine the anatomy as normal or abnormal, and if abnormal, be able to delineate the abnormality and extend the scope of the study appropriately
• Ability to work independently and as a member of a team
• Strong organizational and organizational skills

Typical Employers
Source: http://www.michener.ca/ce/postdiploma/ultrasound.php
• Ultrasonographers work in all areas of the hospital - from emergency through obstetrics and gynecology to sports medicine - and in private clinics
• Ultrasonographers also work in private clinics and private diagnostic imaging clinics and centers

Source: http://hshs.mohawkcollege.ca/MedRadSci/career.html
• Ultrasonographers work in community and teaching hospitals, independent diagnostic imaging centers, doctors' offices and mobile units.
• Other opportunities include future advancement in management, clinical teaching, education and applications and sales specialties with commercial companies providing medical imaging equipment and services.

Average Hourly Wage
$19.96/ hour (average)
Salaries tend to be higher than this in a hospital setting (i.e., $24.00/hour)

Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.
7) Medical Radiation Technologists (MRT)

- Medical Radiation Technologist is a regulated health profession in Ontario - College of Medical Radiation Technologists of Ontario [www.cmrt.org](http://www.cmrt.org) To obtain certification graduates must pass a national written examination with the Canadian Society for Medical Radiological Science and be licensed with the Ontario regulatory body
- MRTs work within one of four specialties in medical radiation technology: Radiography, Radiation Therapy, Nuclear Medicine or Magnetic Resonance Imaging

**Role**


Main duties include:

- Operate X-ray, radiographic and fluoroscopic equipment, computerized tomography (CT) scanners, mammography units and magnetic resonance imaging (MRI) scanners to produce radiographs or anatomic images of the human body for the diagnosis by radiologists of disease or injury
- Prepare radiopharmaceuticals, such as radionuclides and other materials and administer them to patients or to biological samples
- 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
- Perform diagnostic procedures using radioactive materials on biological specimens, such as blood, urine and feces
- Assist radiation oncologists and clinical physicists with preparation of radiation treatment plan
- Record and process results of procedures

**Educational Requirements**

- Completion of a recognized program in Radiography, Radiation Therapy, Nuclear Medicine or Magnetic Resonance Imaging
- Diagnostic imaging programs (3 years) in medical radiation technology and therapy are available at the following community colleges: Boréal, Cambrian, Confederation, Fanshawe, Michener and Mohawk.

**Skills/Qualities**

**Technical**

- Basic computer skills: word processing, internet, email, presentation programs, spreadsheet manipulation and database knowledge
- Operate, monitor, maintain, calibrate and test imaging and ancillary equipment

**Communication**

- Excellent oral and written communication skills

**Other**

- Excellent analytic, problem recognition and problem solving-skills
- Ability to meet patient care needs
- Ability to multi-task and work effectively as a team member
- Effective time management skills, ability to organize work and set priorities
- Ability to work effectively and efficiently in a fast paced environment in an accurate manner under stressful conditions
- Accuracy and patience
- Compassionate and emotionally mature
- Good eye/hand coordination
• Ability to calm nervous patients
• Ability to think and work independently
• Ability to picture forms in space
• Ability to stand on your feet for long periods of time

**Typical Employers**  
*Source: Ministry of Training Colleges and University web site*  
http://www.edu.gov.on.ca/eng/document/nr/02.03/medical.html  
In Ontario there are approximately 5,200 registered medical radiation technologists employed in hospitals, private clinics, cancer centres, research laboratories, industry, education and administration.  
• Cancer treatment centres employ medical radiation technologists in the specialty of radiation therapy  
• Hospitals, clinics and radiological laboratories employ medical radiation technologists in the specialty of radiography  
• Major clinics and hospitals in large urban centres employ medical radiation technologists in the specialty of nuclear medicine  
• Very few medical radiation technologists are self-employed

**Average Hourly Wage**  
*Source: http://www.hrsdc.gc.ca/asp/gateway.asp?hr=/en/on/offices/2003wages/toronto.shtml&hs=on0#skill_type_3*  
$27.33/hour (average)  
Salaries vary according to such factors such as experience, level of responsibility, seniority, size of company, size of city, etc.

**Are there assistant positions in the field of MRT?**  
• There are no allied non-regulated jobs in medical radiation technology at this point in time and therefore no educational programs for such.  
• The legislation which exists around the ordering and application of ionizing radiation is quite restrictive. Areas where MRTs require assistance are also quite specialized and is usually provided by physicians or nurses – i.e., administering sedation, urinary catherization, etc.  
• The only "assistant" type of job that existed in the past was the darkroom technician, however, these positions have now been replaced with digital imaging and daylight processing.

**8) Other Positions in the Field of Diagnostics/Therapeutics**

**Dialysis Technician** performs dialysis treatments under supervision of a registered nurse; pretreatment assessment, cannulation, initiation of treatment, treatment monitoring, discontinuation of treatment, and post-treatment assessment.  
Certification is available through the Ontario Association of Certified Engineering Technicians/Technologists  

**Electroencephalographic Technologist (EEG)** operates diagnostic equipment such as electroencephalographs and evoked potential equipment to record the electrical activity of the brain, cranial and central nervous system. Take notes on the recorded graph to identify interference such as poor electrode contact or patient movement. Prepares recordings and reports for interpretation by neurologists. Checks, calibrates and performs routine maintenance of equipment.
Electromyographic (EMG) Technologist/Electroneurophysiology Technologist operates electromyographic equipment to conduct electrophysiological nerve conduction velocity tests and to assist physicians in conducting electrophysiological tests such as muscle strength and repetitive stimulation. Prepares recordings and reports of findings for physicians to aid in the diagnosis of neuromuscular disorders. Check, calibrate and perform routine maintenance of equipment. Source: http://www23.hrdc-drhc.gc.ca/2001/e/groups/3218.shtml

Polysomnographer (sleep clinic) performs and evaluates overnight sleep studies to aid physicians in the diagnosis of sleep disorders. They also apply and titrate nasal continuous positive airway pressure (CPAP) for treatment of sleep-disordered breathing. The demand for Sleep Medicine Technologists is growing due to an increase in the number of Canadians diagnosed with disorders such as sleep apnea. Sleep Medicine Technologists are currently employed in hospitals, private laboratories, clinical and research settings and the growing home care field. See the Canadian Sleep Society http://www.css.to

B) Labour Market Prospects

Source: http://www1.on.hrdc-drhc.gc.ca/ojf/ojf.jsp?lang=e&section=Profile&noc=3214
Employment for the field (Respiratory Therapists, Clinical Perfusionists and Cardiopulmonary Technologists) is expected to grow as fast as the average for all occupations through the year 2007. The potential increase in cardiopulmonary diseases and cancer due to an ageing population and technological advances in treatment will increase the demand for respiratory therapists, cardiopulmonary technologists, cardiovascular perfusionists as well as medical radiation technologists.
In addition, ultrasonography is a rapidly growing technology that has become an integral part of the diagnostic process in most health care facilities.

Source: http://hshs.mohawkcollege.ca/MedRadSci/career.html
Employment in community and teaching hospitals, independent diagnostic imaging centres, doctors' offices and mobile units are all viable options. Other opportunities include future advancement in management, clinical teaching, education and applications and sales specialties with commercial companies providing medical imaging equipment and services. Graduates may continue their education and pursue post-diploma or graduate studies in other advanced practice areas such as magnetic resonance imaging or cardiac ultrasonography.

Respiratory therapy departments are struggling to find people to fill vacant positions. A significant number of respiratory therapists are approaching retirement age. Add to that people who leave the profession for their own reasons and vacancies created when young therapists take maternity and paternal leave, coupled by vacation leaves, all signs are pointing to a coming shortage of practitioners.
As well, employment opportunities will increase as the population ages and requires respiratory therapy for lung disease, cardiovascular disease and unintended disease such as pneumonia and influenza.
There has also been an expansion of the services that respiratory therapists provide that will require more staff.

The Medical Radiological profession has grown significantly in the past five years and we don't
anticipate an end to that growth any time in the future. The past five years has seen the addition of Magnetic Resonance Imaging (MRI). MRI alone has increased staff within diagnostic imaging departments.

Employment for Nuclear Medicine Technologist (a type of medical radiation technologist) is expected to grow about as fast as the average for all occupations through the year 2007. Increases in illnesses associated with an ageing population should increase the demand for workers in this occupation. As well, innovations in the use of nuclear medicine to diagnose illnesses, such as cancer, may increase demand for these professionals. However, overall demand for these technologists depends on the extent of government funding for new technologies and cancer centers. Technological change, in particular the introduction of sophisticated imaging technologies, will create new skill requirements in the field.

C) ITPs in the Field

Respiratory Therapy
ITPs who are anesthetists, emergency physicians, cardiologists, internists and respirologists are most prepared to work as respiratory therapists, cardiopulmonary technologists, anesthesia technologists and cardiovascular perfusion technologists. As these specialists have experience in performing diagnostic tests such as arterial blood gas analysis and cardiopulmonary functions tests. In addition they have skills to perform artificial respiration and external cardiac massage, administer oxygen, oxygen-air mixtures and perform or assist with interventions such as airway maintenance, line insertions and intubations.

Ultrasonography
Obstetrician-gynecologists, internists and cardiologists tend to be most prepared to works as ultrasonographers as they have skills and experience at performing or interpreting imaging tests and procedures; operating ultrasound imaging equipment, as well as observing and caring for patients throughout examinations.

In some cases, IMGs with a strong background in Ultrasonography, and who are able to provide proof of hours from their country, may find work as an Ultrasound Technician in a private clinic without additional training. This enables them to obtain the 12 months of Canadian experience that they require in order to be eligible to write the American Registry of Diagnostic Medial Sonographers (ARDMS) certification exam to become a Registered Sonographer. This certification is valid in Canada. http://www.ardms.org/appresources/prereq.pdf

Radiation Technology
ITPs most suited to the career of a medical radiation technologist are diagnostic radiologists or radiation oncologists as most of them are familiar with X-ray, radiographic, mammography and fluoroscopic equipment, CT scanners and magnetic resonance imaging (MRI) scanners. They also have the experience to perform, record and process results of procedures, as well as apply radiation protection measures. Furthermore, they are able to provide appropriate care for the patient during the radiographic examination and treatment.

Working with Xrays (radiography) utilizes fewer skills than some of the other areas of this field and may be less challenging for ITPs and therefore provide less job satisfaction (i.e., insert film into machine, instruct patient on how to position themselves, operate dials etc.)
Nuclear Medicine on the other hand, utilizes a higher level of skills and creativity. This increased level of challenge may make the job more satisfying for ITPs (i.e. choose which pictures to take, take several slices, etc.) All imaging positions involve direct patient interaction. Radiation therapy and MRI also involve a greater degree of challenge than radiography.

### D) Links

**Educational Institutions**
- Mohawk College [http://www.mohawkcollege.ca/calendar/cardioTechni.html](http://www.mohawkcollege.ca/calendar/cardioTechni.html)

**Professional Organizations**

**Respiratory**
- College of Respiratory Therapists of Ontario [http://www.crto.on.ca/](http://www.crto.on.ca/)
- Canadian Sleep Society [www.css.to](http://www.css.to)

**Cardiology**
- The Canadian Association of Cardio-Pulmonary Technologists [http://www.cacpt.ca/](http://www.cacpt.ca/)
- Ontario Society of Clinical Perfusion [http://www.oscp.on.ca/](http://www.oscp.on.ca/)
- Canadian Society of Clinical Perfusion [http://www.cscp.ca/](http://www.cscp.ca/)
- Canadian Cardiovascular Society [www.ccs.ca](http://www.ccs.ca)
- Canadian Society of Cardiology Technologists [http://www.csct.ca/](http://www.csct.ca/)
- Cardiovascular Technology Association of Ontario [http://www.oscap.on.ca/](http://www.oscap.on.ca/)

**Anesthesia**
- Canadian Anesthesiologists’ Society [www.cas.ca](http://www.cas.ca)

**Ultrasonography**
- Canadian Association of Registered Diagnostic Ultrasound Professionals [http://www.cardup.org](http://www.cardup.org)
- Canadian Society of Diagnostic Medical Sonographers [http://www.csdms.com/home.html](http://www.csdms.com/home.html)

**Radiation Technology**
- College of Medical Radiation Technologists of Ontario [http://www.cmrt.ca/](http://www.cmrt.ca/)
- Ontario Association of Medical Radiation Technologists [www.oamrt.on.ca](http://www.oamrt.on.ca)
- Canadian Association of Medical Radiation Technologists [www.camrt.ca](http://www.camrt.ca)

**Related Web Sites**
- Ontario Job Futures
http://www1.on.hrdc-drhc.gc.ca/ojf/ojf.jsp?lang=e&section=Find&noc=0000#skill3

- Health Canada Environmental Scan of the profession