

UTM CAREER CENTRE

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*INDUSTRY PROFILE:*

# ALLIED HEALTH



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# What Do Allied Health Professionals Do?

*If you're looking for a rewarding career where you'll use biological science and technology to help people live healthier, consider the allied health professions.*

## Overview - What do Allied Health professionals do?

Whether it's a visit to your family doctor for antibiotics for strep throat, a trip to the emergency room for an x-ray or physiotherapy appointments for a sports injury, health care is something we all need to access. Besides the doctors and nurses who provide primary health care, there are many other health professionals working alongside them who use scientific principles and evidence-based practice to help diagnose, treat and prevent disease, and promote wellness. These people work in the allied health sector. Allied health professionals, to name a few, include diagnostic medical sonographers, medical laboratory technologists, occupational therapists, physical therapists, radiological technologists and respiratory therapists. Read on to discover more.

## Occupational Therapy and Physiotherapy

Occupational therapy (OT) and physiotherapy, also known as physical therapy (PT) are very similar. The main difference is that OT focuses on improving a client's ability to perform activities of daily living and PT focuses on improving a client's ability to perform movement of the human body. A person may need help due to falls, motor vehicle accidents, sports injuries, spinal cord injuries, stroke, mental health conditions and chronic illnesses such as cystic fibrosis and diabetes.

## Physical Therapist

A Physical Therapist treats the patient's actual impairment by increasing mobility, aligning bones and joints, or lessening pain through exercises, massage and other techniques. After a physiotherapist assesses a patient's mobility and develops an appropriate treatment plan, the Physical Therapy Assistant (PTA) works with the patient to administer the hands-on treatment.

## Occupational Therapist and OT Assistant

Occupational therapy takes a holistic approach to helping people do the things they want and need to do to live happy, healthy, productive lives. Whereas physiotherapists focus on the root causes of impairment, occupational therapists also consider the behavioral, emotional and environmental factors involved in performing activities of daily living. An Occupational Therapist first assesses a client's needs and develops a therapy plan. An Occupational Therapy Assistant then works with the client to carry out the prescribed plan. He or she will then report the client's progress back to the OT, who will adjust the treatment plan as necessary.

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# What Do Allied Health Professionals Do? (cont.)

If you enjoy meeting people and wish to work with those who are physically, developmentally or emotionally challenged, a career as an OTA/PTA may be right for you. You will work in a variety of environments such as acute care and community hospitals, rehabilitation facilities, long-term care facilities and private practice.

## Medical Laboratory Technologists

Medical laboratory science includes laboratory analysis in five different disciplines: Clinical Chemistry, Hematology, Histotechnology, Microbiology and Transfusion Science. Medical Laboratory Technologists (MLTs) use sophisticated instruments and techniques and apply their knowledge to perform complex procedures on tissue specimens, blood samples and other body fluids. These tests and procedures provide critical information enabling physicians to diagnose, treat and monitor a patient's condition. They often work shifts and weekends, sometimes alone to ensure patients get urgent lab results. MLTs must be able to make critical decisions while working in a fast-paced, high-stress environment.

## Medical Laboratory Assistants

Medical Laboratory Assistants (MLAs) work under the supervision of an MLT, performing the practical components of sample analysis. MLAs sort, prepare and sometimes process samples that will be tested and analyzed by a MLT. MLAs often collect samples, such as blood, and are the laboratory professional that likely interacts directly with patients.

MLTs/MLAs are the fourth largest group of health care professionals in Ontario, and their career outlook is very positive due to an impending national shortage of these professionals.

## Radiological Technologist

A Radiological Technologist helps diagnose disease and injury by producing images using X-ray equipment, which are read by a Radiologist. The technologist may also do procedures with mobile equipment in the operating room, emergency departments or at the patient's bedside. Radiological Technologists operate a variety of medical imaging equipment in areas such as general radiography, computerized tomography (CT), fluoroscopy and mammography. In producing diagnostic images, technologists make sure the patient is accurately positioned and comfortable, use minimal radiation and appropriate radiation protection based on the patient's condition. They also verify the quality of the imaging to allow for diagnosis. Radiological Technologists work closely with patients, doctors and other health professionals as part of the health care team.

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# What Do Allied Health Professionals Do? (cont.)

## Diagnostic Medical Sonographer

A Diagnostic Medical Sonographer (DMS) uses high-frequency sound waves generated by ultrasound machines, to capture both static and moving images of organs, vessels and other internal structures of the normal human anatomy as well as any abnormal or pathologic conditions. Many people associate sonography with pregnancy. It's how a fetus can be seen in the womb. But this technology has many other applications in the diagnosis and treatment of medical conditions in the abdomen, breast, heart and blood vessels and, more recently, in diagnosing and treating musculoskeletal problems.

The DMS looks at the patient's clinical history, lab data and sonographic findings to describe any pathology or abnormality detected and write a technical report. A radiologist interprets the images and report to provide the patient diagnosis. Sonographers are employed in the diagnostic imaging department of hospitals or private clinics. They can also be employed as application specialists, sales representatives, research assistants or educators.

## Respiratory Therapists

We often take breathing for granted, but rising pollution levels, combined with an aging population, are making breathing difficulties more common. Respiratory Therapists (RTs) are crucial members of the health care team who monitor and treat the cardiopulmonary needs of adults, children and newborns. RTs are an integral part of the cardiac arrest team, employ mechanical ventilators and other life support equipment and use medications, therapies and tests to help prevent, diagnose and treat heart and lung disease.

Many RTs work in hospitals in the intensive care unit, delivery room, operating room, emergency department or pulmonary function lab. RTs may also be employed in home care, complex continuing care or rehabilitation facilities. Career opportunities are also growing in business environments, research and education.

## Additional Requirements for Allied Health Professionals

All of these allied health professionals are regulated by the province. To practise in Ontario, you must complete accreditation requirements, pass national exams and be registered with the respective professional college. See the section below for links to industry associations and professional colleges.

[Ontario's colleges](#) offer programs in many of the allied health professions. In particular, the [Michener Institute](#) in Toronto specializes in these disciplines and has several [joint programs with the University of Toronto](#).

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## Fast Facts

### **Health sector expenses**

comprise 41% of total program spending in Ontario. (Source: Financial Accountability Office of Ontario)

### **About 1 out of 5 people**

in Ontario aged 12 and older have two or more chronic health conditions. (Source: Health Quality Ontario)

### **Ontario's 141 public hospital**

corporations, spread over about 228 hospital sites provide a wide range of both inpatient and outpatient services to a growing population of more than 14 million people. Collectively, Ontario hospitals care for more than a million inpatients per year, including about 350,000 who have surgery. They also perform 1.2 million outpatient surgeries and see millions more patients each year for ambulatory care and emergency department visits. (Ibid)

### **Approximately 8,250 people**

work as medical radiation technologists in Ontario and 75% are female

### **There are just under 600**

licensed laboratories and specimen collection centres serving patients across Ontario, with 6,500 practicing Medical Laboratory Technologists (MLTs) and thousands of Medical Laboratory Assistants/Technicians (MLA/Ts)

### **About 1,850 people work**

as medical sonographers in Ontario and 85% are female

### **Around 3,400 people work**

as respiratory therapists in Ontario and 70% are female

### **An estimated 5,800 people work**

as occupational therapists in Ontario and 18% are self-employed



# Industry Trends

*In Canada, our public health care system is arguably one of the best in the world, however, it is also expensive to administer. Government spending on health care exceeds 10% of GDP.*

## Ontario Financial Accountability

Each province administers its own health care, with federal funding. Ontario's Financial Accountability Office projected that health sector expenses would reach \$61.3 billion in 2018-19 -- 41 per cent of total provincial spending.

## Main Factors

Three main factors drive health care expenses -- population growth, an aging population and higher prices for health care services. In 2018, Ontario's population grew by 1.8% to 14.32 million, the highest annual growth since 2002.

## Fastest-Growing Demographic

Seniors (65 years and older) are the fastest-growing demographic in Ontario. In 2018, almost 17% were over 65. By 2041, it's projected that 25% of the population will be senior citizens. The average annual public health care expenditure for a 50-year-old in Ontario is \$3,100. It is \$6,400 for a 65-year-old, and over \$22,000 for an 85-year-old. Ontario's aging population will put increasing pressure on health care spending, as the baby boomers begin to need significantly more health care services.

## Shortage of Long-Term Care Facilities

The effects are already being seen. Because of a shortage of long-term care facilities for frail, elderly patients, many become what is known in the industry as "bed blockers". These individuals end up in hospital for months, taking up beds that should be used by others who need critical care. As a result, with hospital emergency rooms overflowing because of a growing population and the opioid crisis, sick Ontarians are faced with "hallway medicine", waiting, sometimes for days, on a gurney to be admitted to hospital.

## Need for Senior Health Care Services

While the need for senior health care services is skyrocketing, the workforce in the health care industry is also changing. More and more Canadians are retiring, and with fewer young professionals to fill the gaps, there is an increasing void in available talent.

In Ontario, for example, there is a severe shortage of Medical Laboratory Technologists, with a large cohort set to retire over the next four to eight years according to their provincial association.

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## Industry Trends (cont.)

### Factors Affecting the Health Care Sector

In addition to demographic trends, a number of other factors are affecting the health care sector. Among these are advances in technology such as mobile health apps and artificial intelligence.

For instance, Bant is an app developed in Canada which simplifies diabetes management by allowing users to record their glucose readings, link to popular health accounts and share information. With more than 165,000 mobile health apps available worldwide, their popularity will continue to rise, making it easier for people to monitor their own health information and change their behaviours.

In a 2018 report on health care, PwC states that artificial intelligence likely will have a profound effect on the healthcare workforce, not by replacing jobs, but by handling routine business processes such as verifying patient insurance and improving clinical documentation.

Accenture notes that there is a push to deliver more services within the home, which would help to control costs and provide more effective, quality care for some patients. Technology advances will enable more hospital-at-home options for diagnostics, chronic conditions and postsurgical recovery.

### Legislations

To help navigate these trends, improve health outcomes and manage costs, the Ford government brought in sweeping changes to the management of health care in the province in April 2019 with the passage of Bill 74, the People's Health Care Act.

Promising to end hallway medicine, this controversial overhaul of Ontario's health care system created a new super agency, Ontario Health, governed by an appointed Board of Directors. This agency effectively replaces 14 existing Local Health Integration Networks and amalgamates a number of other agencies, including Cancer Care Ontario, Health Quality Ontario and the Trillium Gift of Life Network.

The legislation mandates the creation of Ontario Health Teams (OHT) composed of health care providers and organizations such as physicians, hospitals, home and community care agencies, mental health and addiction services, rehabilitation and complex care, emergency health services and laboratory and diagnostic services, among others. These OHTs will receive government funding to administer and deliver health care for a specific population and geographic area.

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## Industry Trends (cont.)

### **Ontario Hospital Association**

The Ontario Hospital Association states that “the creation of OHTs has the potential to dramatically change working relationships between patients, hospitals and other health service providers. Patients will be able to more easily access and navigate the system and be better supported as they transition from one health care provider or setting to another.”

For example, the Halton Ontario Health Team is one of the first 24 teams in the province that will implement the new model for organizing and delivering health care, starting in 2020. In a news release, it announced that, through OHTs, “patients will experience easier transitions from one provider to another, including, for example, between hospitals and home care providers, with one patient story, one patient record and one care plan.”

Although this sounds like a promising improvement to the current state, the Ontario Health Coalition, which represents over 400 community organizations, warns that these changes will drastically reduce health care funding and cut services, opening the door to privatization of many aspects of health care.

### **Impact of Health Care Restructuring**

As the implementation of Bill 74 will likely take place over several years, the overall impact of health care restructuring in Ontario is yet to be seen.

With more Ontarians living longer but not necessarily healthier, there will be many opportunities in Ontario and beyond for those pursuing a career on the front lines in allied health care for the foreseeable future.



# Employment Outlook for Allied Health Professionals

*The employment outlook will be good for Medical Radiation Technologists (NOC 3215) in Ontario for the 2018-2020 period according to the Government of Canada's most recent outlook report. The job growth rate is projected to be above average at 10% and up to 2,000 new job openings, with 40% in the Toronto area to 2021.*

## Overview

Close to three quarters of medical radiation technologists are employed in hospitals. A small portion is also employed in medical and diagnostics laboratories.

Employment in this occupation has grown in Ontario over the last decade. The increased incidence and prevalence of diseases like cancer will continue to drive the need for medical radiation technologists in detecting and treating these illnesses. To improve health outcomes, the provincial government has embarked on screening programs for the early detection and prevention of some cancers, which could help support job prospects for these professionals. These technologists also offer services to injured patients, and among these patients, there has been an increase in the number of sport-related brain injuries over the last few years, which could prompt emergency departments of hospitals to hire additional medical radiation technologists. The health care needs of a growing and aging population will continue to generate demand for diagnostic imaging services such as MRIs (magnetic resonance imaging) and may further support the need for medical radiation technologists.

## Medical Radiation Technologists

However, since employment opportunities are generally influenced by the level of provincial funding allocated to hospitals and cancer treatment centres, adjustments in funding may affect the level of job creation in this occupation beyond the forecast period. Medical radiation technologists may face some challenges in finding employment in hospitals in rural areas as hospital services continue to consolidate and move to urban areas. The province has recently invested in enhanced screening for newborns, enhanced cancer screening, and shortening wait times for diagnostic procedures for hip/knee replacements, which should create additional demand for these professionals. Investment over the last decade toward reducing wait times for various patients, including those waiting for cancer radiation therapy, could positively affect the demand for this occupation in the province and may lead to more opportunities in future years.

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# Employment Outlook for Allied Health Professionals (cont.)

## Medical Radiation Technologists

In Ontario, medical radiation technologists are regulated by the College of Medical Radiation Technologists of Ontario (CMRTO). The use of radiation practices may be applied to a broader range of conditions than in the past. Technologists with knowledge and experience in more than one of the four key specialties of radiography, radiation therapy, nuclear medicine or magnetic resonance may have an improved outlook. While job prospects are favourable, some of the new entrants to this field may have to accept part-time or temporary work when starting their career until full-time positions become available. Also, these health professionals may be required to work various shifts including evenings and weekends based on operational needs, therefore flexibility is an asset.

## Medical Laboratory Technologists

The healthcare professionals who staff Ontario's medical laboratories are set to see a large cohort retire in the next four to eight years. This includes 44 per cent of Medical Laboratory Technologists. The Medical Laboratory Professionals Association of Ontario (MLPAO) reports a scarcity of MLTs across Ontario, with 45 per cent of job openings in rural and remote areas. Almost 40 per cent of openings were advertised for more than a year with 78 per cent of labs seeking MLTs, according to an August 2019 survey of one third of all Ontario laboratories.

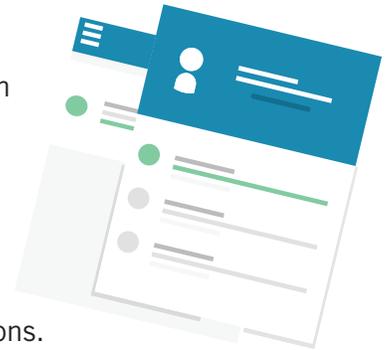
## Outlook Report

According to the Canadian Government's most recent outlook report, the employment outlook for Medical Sonographers (NOC 3216), Respiratory Therapists (NOC 3214), Occupational Therapists and Occupational Therapy Assistants (NOC 3143) and Physiotherapists and Physical Therapy Assistants (NOC 3142) will be good in Ontario for the 2019-2021 period.

# What You Need To Succeed

## Medical Laboratory Technologists

Medical Laboratory Technologists operate a variety of complicated instruments. They must have good motor skills, hand-eye coordination and manual dexterity. In addition to technical skills, they must have a strong attention to detail in order to detect subtle change to the microscopic appearance of blood, tissue and bacterial cells. MLTs must also determine the validity of the results they obtain, which requires analytical and critical thinking. Whether working alone or as a member of a team, the MLT must be able to manage time efficiently and communicate clearly, sometimes in high-stress situations.



## Medical Radiation Technologists

Medical Radiation Technologists should enjoy working with people and have good interpersonal skills, including the ability to listen carefully and provide clear instructions. They must have a strong sense of responsibility and a high degree of integrity. Attention to detail, critical thinking and problem-solving skills are of prime importance, combined with compassion, patient care and empathy.

## Respiratory Therapists

Respiratory Therapists need good communication skills and sensitivity to patients' physical and psychological needs. They should be able to function well as an interprofessional team member, and also as an autonomous clinician. RTs must be able to work under pressure with critically ill patients, and be patient and compassionate with patients suffering from chronic illness or receiving end-of-life care.

## Diagnostic Medical Sonographers

Diagnostic Medical Sonographers in the clinical setting need to be able to multitask, work efficiently, be physically fit, have excellent hand-eye coordination and spatial reasoning in order to scan and differentiate normal from abnormal findings. Sonographers must be able to deal with high-stress situations in a calm and competent manner.

## In-Demand Jobs and Salary Ranges

Job Title	Salary Range
Diagnostic Medical Sonographer	\$ 37,518 – \$ 89,620
Medical Laboratory Technologist	\$ 35,154 – \$ 110,622
Medical Laboratory Assistant	\$ 22,327 – \$ 79,063
Occupational Therapist	\$ 34,964 – \$ 102,193
Occupational/Physical Therapy Assistant	\$ 22,577 – \$ 79,262
Physiotherapist	\$ 32,007 – \$ 104,673
Radiological Technologist	\$ 37,307 – \$ 75,446
Respiratory Therapist	\$ 32,628 – \$ 101,244

## Where the Jobs Are

**These industries show the strongest demand of allied health professionals:**

- Community care agencies
- Hospitals and clinics
- Long-term care facilities
- Nursing homes and seniors' residences
- Private laboratories
- Public health facilities
- Rehabilitation centres
- University research labs





# Industry Associations

<b>Industry Associations</b>	<b>Website Link</b>
Canadian Society for Medical Laboratory Science	<a href="https://www.csmls.org/">https://www.csmls.org/</a>
College of Medical Laboratory Technologists of Ontario	<a href="http://www.cmlto.com/">http://www.cmlto.com/</a>
College of Medical Radiation Technologists of Ontario	<a href="https://www.cmrto.org/">https://www.cmrto.org/</a>
College of Occupational Therapists of Ontario	<a href="https://www.coto.org/">https://www.coto.org/</a>
College of Physiotherapists of Ontario	<a href="https://www.collegept.org/">https://www.collegept.org/</a>
College of Respiratory Therapists of Ontario	<a href="https://www.crto.on.ca/">https://www.crto.on.ca/</a>
Medical Laboratory Professionals Association of Ontario	<a href="https://www.mlpa.org/">https://www.mlpa.org/</a>
Ontario Association of Medical Radiation Sciences	<a href="https://secure.oamrs.org/Apps/Pages/who-we-are">https://secure.oamrs.org/Apps/Pages/who-we-are</a>
Ontario Physiotherapy Association	<a href="https://opa.on.ca/">https://opa.on.ca/</a>
Ontario Society of Occupational Therapists	<a href="https://www.osot.on.ca/">https://www.osot.on.ca/</a>
Respiratory Therapy Society of Ontario	<a href="https://www.rtso.ca/">https://www.rtso.ca/</a>



# Where to Find More Information

## Sources:

- [The Michener Institute](#)
- [Ontario Health Coalition](#)
- [Financial Accountability Office of Ontario](#)
- [Government of Canada outlook reports](#)
- [Health Quality Ontario Measuring Up 2018](#)

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