



get on the medical provider path

Is this the job for me?

Take this quick quiz to find out if community health aide is a good direction for you:

- 1 Do you have a desire to help people?
 YES NO
- 2 Want to live in a remote area, and maybe travel for your work?
 YES NO
- 3 Are you willing to respond to emergencies anytime?
 YES NO
- 4 Are you an independent worker and a good communicator?
 YES NO
- 5 Do you like to problem solve?
 YES NO
- 6 Do you enjoy math and science?
 YES NO
- 7 Want to get into a career in two years or less?
 YES NO

If you answered yes to several of these questions, you may be on the right track!

What's it all about?

Community health aides (CHAs), who exist only in Alaska, are one of the most important health care providers in the state's rural areas. CHAs, who are employed by tribal health organizations and work under the supervision of a referral physician, provide primary health care in Alaska's remote villages. Their training leads to becoming a community health practitioner (CHP).

As CHAs live and work in remote areas, they rely on telephone, e-mail and fax to communicate with their referral physicians. CHAs use the "Alaska Community Health Aide/Practitioner Manual" to guide them in providing care to a wide variety of patients, including elders, pregnant women, infants, children, accident victims, and mental health and chronic disease patients.

What do CHAs do?

CHAs complete a variety of tasks, including:

- Maintain regular clinic hours and provide 24-hour emergency care.
- Interview and examine patients to identify health problems.
- Consult with referring physician.
- Order or run diagnostic tests.
- Treat or refer patients seeking care.
- Keep detailed patient records.
- Counsel patients and family members.

- Perform routine procedures, such as injections and stitches.
- Provide preventive health care.
- Administer dental prevention program.
- Provide well-child and prenatal care.
- Monitor care of the chronically ill.
- Maintain clinic records, supplies and pharmacy.
- Arrange patient travel to regional health care centers.
- Assist patients with filling out forms.
- Collaborate with social workers, teachers and others on health-related issues.
- Supervise other staff.
- Coordinate visits for itinerant health professionals, such as physicians and dentists.
- Take required continuing education classes.

How much money can I make?

Hourly wages range from \$9.20 for a new CHA to \$39.95 for an experienced practitioner.

How do I become a CHA? How long does it take?

To become a CHA, you must:

- Have math and English skills at or beyond the sixth grade level.
- Complete a series of basic training sessions and a clinical preceptorship.
- Provide proof of current emergency trauma technician or emergency medical technician training/certification.
- Complete a period of supervised clinical training.
- Usually be a local resident who intends to remain in the village.
- Be employed by a tribal health organization that operates a CHA program.

The basic CHA training series, which consists of 15 weeks divided into four sessions, typically takes about 14 months to complete. CHAs are paid a salary during their training, which is offered at four regional centers across the state. CHAs may complete additional clinical requirements and take an exam to become a CHP. CHAs and CHPs may also work toward an associate of applied science degree.

Learn more about CHA and CHP training programs in Alaska by reviewing the “training providers” section later in this publication.

Attention high school students!

If you think you might want to become a CHA or CHP, the time to start planning is now. In general, you should take four years of English, three years of math, three years of social studies, two years of science and possibly two years of a second language. You should also consider taking college preparatory or advanced placement (AP) courses. Other recommended classes and electives include:

- Biology
- Anatomy and physiology
- Computer applications
- Nutrition
- Foreign language
- Introduction to health care
- Safety and first aid

You should also discuss your plans with a teacher, counselor and parents, and check to see what work-based learning opportunities, such as field trips, job shadowing and internships, are available in your community.

Are there jobs available?

According to a recent vacancy study, there is a high demand for CHAs and CHPs, and there are many opportunities for those just entering the field. For example, of the approximately 100 current job openings, 88 are open to new graduates.

Where are the jobs?

CHAs generally work in the village where they live, although some CHAs may travel to a number of villages each year. CHAs are usually selected by the village council, and are employed by their tribal council or tribal health organization.

What else is on this pathway?

Want to learn about other possible opportunities on the medical provider career pathway? Be sure to read about physician assistant and family physician – other health care “hot jobs” in Alaska!





get on the medical provider path

Is this the job for me?

Take this quick quiz to find out if physician assistant is a good direction for you:

- 1 Are you interested in practicing medicine?
 YES NO
- 2 Do you have a desire to help people?
 YES NO
- 3 Are you a good communicator?
 YES NO
- 4 Do you like to problem solve?
 YES NO
- 5 Do you enjoy math and science?
 YES NO
- 6 Do you like to be part of a team?
 YES NO
- 7 Are you willing to invest four to six years in education after high school?
 YES NO

If you answered yes to several of these questions, you may be on the right track!

What's it all about?

Physician assistants (PAs) are highly skilled members of the health care team, who are licensed to practice medicine with the supervision of a licensed doctor. In urban areas, a PA may work side-by-side with their supervising physician, while in rural areas, PAs often work independently, while keeping in close communication with their supervisor.

PAs complete a wide range of duties, ranging from performing an exam to prescribing medicine, and running tests to handling medical emergencies. PAs can be found in many different settings, including hospitals, doctors' offices, nursing homes, prisons, community health clinics and rehabilitation centers. They work in primary care areas, such as family medicine, general practice or pediatrics, as well as specialty areas, such as surgery, emergency medicine and geriatrics.

What do PAs do?

PAs complete a variety of tasks, including:

- Interview patients, and record patients' health history, progress and test results.
- Perform physical exams.
- Order and analyze diagnostic tests, including electrocardiograms, lab tests and X-rays.
- Explain test results to patients.

- Consult with supervising physician, as needed.
- Make diagnoses.
- Develop and monitor patient treatment plans.
- Perform therapeutic procedures, such as injections, suturing and cast application.
- Prescribe medicine.
- Respond to medical emergencies.
- Counsel patients about medications, preventative care, family planning, emotional problems and risk management.
- Manage doctors' offices.
- Order supplies and equipment.
- Supervise technicians and other assistants.
- Assist physicians during surgery and other medical procedures.

How much money can I make?

In Alaska, PAs earn an average hourly wage of \$41.41, and have an average annual salary of \$86,130. For additional information on PA salaries, visit the American Academy of Physician Assistants Web site at www.aapa.org.

How do I become a PA? How long does it take?

To become a PA, you must:

- Have a high school diploma or GED.
- Complete at least two years of undergraduate coursework in the sciences; some PA programs require a bachelor's degree prior to admission.
- Graduate from an accredited PA program.
- Pass the Physician Assistant National Certification Exam.
- Obtain a PA license from the Alaska State Medical Board.

Earning a bachelor's degree typically takes four to five years, and PA programs take an additional two years to complete. Near the end of your training, you'll participate in supervised work experience.

It's important to note most PA programs require applicants to have previous health care experience. Some PAs begin their careers as community health aides, another health care "hot job."

Following graduation, you must take continuing education courses to renew your PA certification. You may also pursue post-graduate work if you want to specialize in a particular field, such as surgery, pediatrics or emergency medicine.

Learn more about PA programs in Alaska by reviewing the "training providers" section later in this publication.

Attention high school students!

If you think you might want to become a PA, the time to start planning is now. In general, you should take four years of English, three years of math, three years of social studies, two years of science and possibly two years of a second language. You should also consider taking college preparatory or advanced placement (AP) courses. Other recommended classes and electives include:

- Anatomy and physiology
- Health education
- Introduction to health care
- Emergency medical technology
- Advanced biology courses
- Advanced chemistry courses
- Psychology
- Leadership
- Computer applications
- Keyboarding

You should also discuss your plans with a teacher, counselor or parent, and check to see what work-based learning opportunities, such as field trips, job shadowing and internships, are available in your community.

Are there jobs available?

There are currently many opportunities for PAs in Alaska, and that number is expected to grow substantially in the coming years. For example, according to the Alaska Physician Supply Task Force, Alaska will need to increase the number of PAs in the state by 240 during the next 20 years.

Where are the jobs?

In Alaska, PAs work in both rural and urban settings. A majority of PAs work in clinics and physicians' offices. Other settings in Alaska include tribal health organizations, hospitals and nursing homes.

What else is on this pathway?

Want to learn about other possible opportunities on the medical provider career pathway? Be sure to read about community health aide and family physician – other health care "hot jobs" in Alaska!





get on the medical provider path

Is this the job for me?

Take this quick quiz to find out if family physician is a good direction for you:

- 1 Do you want to help people by gaining an in-depth understanding of medical conditions, tests and treatments?
 YES NO
- 2 Can you handle stressful situations?
 YES NO
- 3 Are you a good communicator?
 YES NO
- 4 Do you like to problem solve?
 YES NO
- 5 Do you enjoy math and science?
 YES NO
- 6 Are you an independent worker?
 YES NO
- 7 Are you willing to commit about 11 years to education after high school?
 YES NO

If you answered yes to several of these questions, you may be on the right track!

What's it all about?

Family physicians are doctors who see a wide variety of patients, including infants, children and adults both young and old. They usually see the same patients on a regular basis, and often are the first person patients come to for care.

Family physicians examine, diagnose and provide treatment to patients, and educate them on how to maintain and improve their health. When needed, family physicians refer patients to health care specialists for testing or treatment.

In addition to family practice, physicians can specialize in many other areas, including pediatrics, cardiology, neurology, internal medicine, surgery, ears/nose/throat, and ophthalmology.

What do family physicians do?

Family physicians have a variety of responsibilities, including:

- Interview patients to obtain their personal health history.
- Conduct physical exams.
- Perform and order diagnostic tests, such as lab work and X-rays.
- Analyze test results and make diagnoses.
- Review treatment options with patients and their families.
- Prescribe medications and treatments.
- Counsel family members about patients' conditions.

- Refer patients to health care specialists, when needed.
- Monitor patients' condition and progress. Revise treatment, as needed.
- Counsel patients on preventive health measures, such as diet and exercise.
- Coordinate activities of a health care team that can include nurses, behavioral counselors and others.
- Consult with other health care professionals.
- Keep accurate, detailed records on each patient.
- Write reports for insurance companies and government agencies.
- Take classes to update skills.
- May oversee the business aspects of running an office.
- May perform medical procedures, such as delivering babies and performing surgery.
- May teach at medical schools.
- May do research on procedures and treatments for disease.

How much money can I make?

In Alaska, family physicians earn an average hourly wage of \$69.54, and have an average annual salary of \$144,650.

How do I become a family physician? How long does it take?

To become a family physician, you must:

- Have a high school diploma or GED.
- Earn a bachelor's degree. Be sure to get high grades and take courses required for admission to medical school.
- Graduate from medical school and complete an internship.
- Pass a state licensing exam.
- Complete a residency program in family and general medicine.
- May pass additional exams to become board-certified.

All together, it takes approximately 11 years of education after high school to become a family physician. Earning a bachelor's degree takes approximately four years, medical school takes another four years, and residency programs usually last three years. Through WWAMI, Alaska's medical school, you can complete three of your four years of medical school right here in Alaska. Learn more about this program by reviewing the "training providers" section later in this publication.

Attention high school students!

If you think you might want to become a family physician, the time to start planning is now. In general, you should take four years of English, three years of math, three years of social studies, two years of science and possibly two years of a second language. You should also consider taking college preparatory or advanced placement (AP) courses. Other recommended classes and electives include:

- As many math and science classes as possible
- Anatomy and physiology
- Child development
- Computer applications
- Food and nutrition
- Introduction to health care
- Safety and first aid
- Accounting
- Entrepreneurship
- Introduction to business

You should also discuss your plans with a teacher, counselor or parent, and check to see what work-based learning opportunities, such as field trips, job shadowing and internships, are available in your community. There are several opportunities offered through the WWAMI program at the University of Alaska Anchorage, including a six-week summer enrichment program.

Are there jobs available?

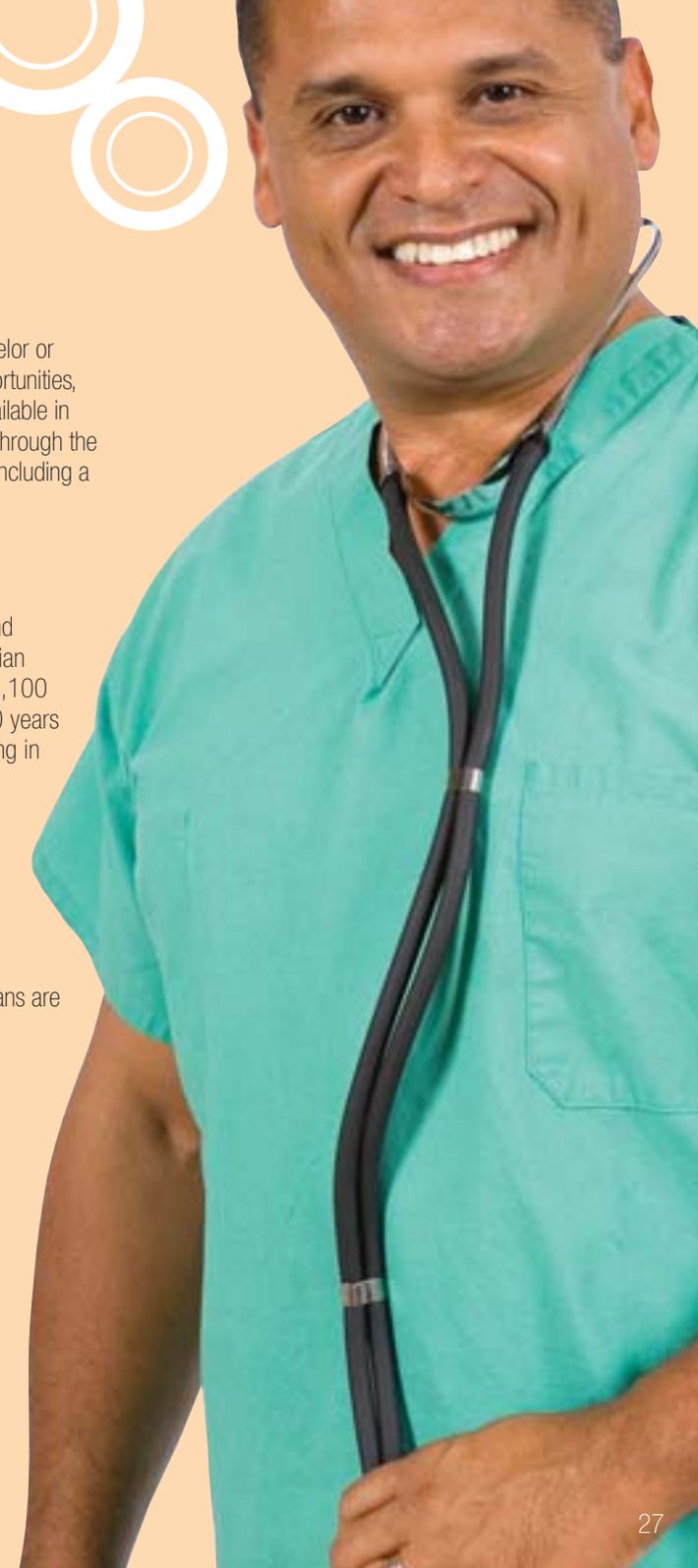
In the coming years, there is going to be a huge demand for physicians in Alaska. According to the Alaska Physician Supply Task Force, Alaska will need to add more than 1,100 practicing physicians to the work force over the next 20 years – nearly double the 1,347 physicians currently practicing in the state.

Where are the jobs?

Family physicians are found all across the state in communities of all sizes. They work in doctors' offices, clinics, hospitals, and federal, state and local government agencies. Additionally, about 12 percent of family physicians are self-employed.

What else is on this pathway?

Want to learn about other possible opportunities on the medical provider career pathway? Be sure to read about community health aide and physician assistant – other health care "hot jobs" in Alaska!



MEDICAL LABORATORY TECHNICIAN



get on the diagnostic services path

Is this the job for me?

Take this quick quiz to find out if medical lab technician is a good direction for you:

- 1 Do you like to solve mysteries and put puzzles together?
 YES NO
- 2 Do you like to work on a team?
 YES NO
- 3 Are you very careful and exact in your work?
 YES NO
- 4 Do you enjoy hands-on science experiments and working with data?
 YES NO
- 5 Can you add, subtract, multiply and divide quickly and correctly?
 YES NO
- 6 Are you good at handling very small objects or small amounts of material?
 YES NO
- 7 Do you want to get into a career in about two years?
 YES NO

If you answered yes to several of these questions, you may be on the right track!

What's it all about?

Did you know more than 70 percent of physicians' medical decisions are based on laboratory test findings? And many times, it's a medical laboratory technician (MLT) who runs the tests doctors use to detect, diagnose and treat diseases.

Working under the supervision of a medical technologist, a MLT uses sophisticated instruments to analyze samples of body fluids, cells or tissues. MLTs usually work in hospital labs, clinics and doctors' offices.

What do MLTs do?

In a typical day, a MLT may:

- Run tests using samples of body fluids, cells or tissues.
- Look for abnormalities or disease organisms.
- Evaluate test results.
- Keep accurate records of medical tests.
- Communicate with physicians, medical researchers and pathologists about test results.
- Select and prepare specimens and media for cell culture.
- Grow cell cultures using appropriate media and environmental conditions.
- Prepare slides for examination.

- Perform tests to determine blood type for blood transfusions or for blood counts.
- Prepare specimens and use machines that automatically analyze samples.
- Follow detailed instructions to do tests by hand.
- Set up, adjust, clean and maintain lab equipment.
- May supervise other technicians and laboratory assistants.
- May conduct research under the supervision of medical researchers.

How much money can I make?

In Alaska, MLTs earn an average hourly wage of \$20.67, and have an average annual salary of \$42,990.

How do I become a MLT? How long does it take?

To become a MLT, you must:

- Have a high school diploma or GED, preferably with a background in science and math.
- Complete a MLT program.

Most MLT programs offer an associate's degree, which usually takes two years to earn. Some MLTs go on to complete more advanced medical programs to become medical technologists or physician assistants.

Learn more about MLT programs in Alaska by reviewing the “training providers” section later in this publication.

Attention high school students!

Think you want to become a MLT? Well, the time to start planning is now. In general, you should take four years of English, three years of math, three years of social studies, two years of science and possibly two years of a second language. You should also consider taking college preparatory or advanced placement (AP) courses. Other recommended classes and electives include:

- Anatomy and physiology
- Physical science
- Biology
- Chemistry
- Physics
- Pre-algebra, algebra and advanced algebra
- Medical lab technology
- Community health
- Safety and first aid
- Health care occupations
- Computer fundamentals
- Keyboarding
- Basic computer
- Computer technology

You should also discuss your plans with a teacher, counselor or parent, and check to see what work-based learning opportunities, such as field trips, job shadowing and internships, are available in your community.

Are there jobs available?

There are currently about eight job openings a year for MLTs in Alaska, and this occupation is expected to continue to grow quickly (21.3 percent growth compared to 14.8 percent for all occupations).

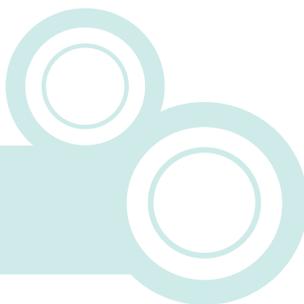
Where are the jobs?

About one-third of MLTs work in hospitals. They also work in doctors’ offices and clinics. In rural Alaska, MLTs often work in regional hospitals.

What else is on this pathway?

Want to learn about other possible opportunities in the diagnostic services career pathway? Be sure to read about radiographic technologist – another diagnostic services “hot job” in Alaska!





alan delarosa

MEDICAL TECHNOLOGIST

Alan DelaRosa, currently working as a medical technologist, is a perfect example of a traveler on the health care career pathway. He began his health care career as a certified medical assistant at the Alaska Native Medical Center (ANMC) in Anchorage. He later got a job working as a medical laboratory assistant for the Yukon Kuskokwim Health Corporation, where he started taking online courses through the University of Alaska Anchorage (UAA) to earn his degree in medical laboratory technology.

After moving back to Anchorage, Alan completed UAA's two-year associate's degree program in medical laboratory technology, and immediately began working toward his bachelor's degree in medical technology. He completed that degree about two-and-a-half years later.

Alan also attended a professional health conference in Denver, Colorado called Pathways into Health, which was focused on health professionals who have a Native heritage and are currently working in the medical field.

"My education and training was important because it helped prepare me for the work force," said Alan, who was born in Honolulu, Hawaii, moved throughout the Lower 48 during his childhood, and graduated from Mountain Village High School in 1992. "I enjoy this field a lot

and was curious to know why I was running patient tests and what their results meant."

In his current job as a medical technologist at ANMC, Alan runs tests with patient samples to help physicians make diagnoses. "The enjoyable part of my job is making sure I give out accurate results and working with a nice staff," he said. "The tough part of my job is that it can get extremely busy, since we do have a limited work force, but it does make the time go faster."

Alan's education isn't over. He said he hopes to begin pursuing a master's degree, perhaps in public health, from UAA next year.

"Start the basic classes right away and take summer classes, which will help you to get done sooner," Alan advised other students interested in the health care field.



RADIOGRAPHIC TECHNOLOGIST



get on the diagnostic services path

Is this the job for me?

Take this quick quiz to find out if radiographic technology is a good direction for you:

- 1 Are you interested in working in the medical field?
 YES NO
- 2 Do you like to operate sophisticated equipment?
 YES NO
- 3 Do you want a job where you help figure out and solve problems?
 YES NO
- 4 Do you like to work as part of a team?
 YES NO
- 5 Are you very detail-oriented?
 YES NO
- 6 Are you good at explaining things?
 YES NO
- 7 Want to get into a career in about two years?
 YES NO

If you answered yes to several of these questions, you may be on the right track!

What's it all about?

A radiographic technologist, also called an X-ray technologist or radiographer, uses highly sophisticated equipment to create images of patients' internal organs, tissues and bones. Physicians then use these images to diagnose and track the progress of patients' illnesses and injuries.

Following the instruction of physicians, radiographic technologists perform a variety of procedures such as X-rays, which show the body's bones, and fluoroscopies, which show the body's internal organs. With additional training, radiographic technologists can specialize in other procedures, such as magnetic resonance imaging (MRI) and computerized tomography (CT) scanning.

What do radiographic technologists do?

Some common tasks performed by radiographic technologists include:

- Get instructions from doctors about which procedures to perform.
- Explain procedures to patients, and answer questions.
- Prepare patients for procedures. This may include starting an IV or giving patients a special liquid to drink.
- Make sure patients remove jewelry or other items that interfere with imaging equipment.
- Follow radiation safety measures to protect patients and staff.

- Make sure that only necessary parts of the patient's body are exposed to X-ray radiation. Protect the rest of patient's body with a lead apron.
- Position patient on the examining table and arrange equipment so that images can be made.
- Monitor patients during procedure, and report problems to doctors.
- Adjust exposure time and distance of X-ray equipment, using computer and mechanical controls.
- Monitor images shown on video screens.
- Review images and evaluate clarity to ensure doctors will be able to read them.
- Consult with doctors on the images.
- Oversee and train radiologic staff.
- Maintain and update patient records.
- Maintain special equipment.
- Take inventory of medical supplies.

How much money can I make?

In Alaska, radiographic technologists earn an average hourly wage of \$27.63, and have an average annual salary of \$57,470.

How do I become a radiographic technologist? How long does it take?

To become a radiographic technologist, you must:

- Have a high school diploma or GED.
- Complete a radiologic technology training program, preferably with an associate's degree or greater.
- May earn national certification by taking an exam.

Most radiographic technologists earn at least an associate's degree, which takes about two years of study, while others go on to earn a four-year bachelor's degree. Students may also pursue training in specialty areas, such as nuclear medicine technology, mammography, CT scanning, MRI and radiation therapy.

Learn more about radiographic technologist programs in Alaska by reviewing the "training providers" section later in this publication.

Attention high school students!

Think you want to become a radiographic technologist? Well, the time to start planning is now. In general, you should take four years of English, three years of math, three years of social studies, two years of science and possibly two years of a second language. You should also consider taking college preparatory or advanced placement (AP) courses. Other recommended classes and electives include:

- Anatomy and physiology
- Health care occupations
- Health education
- Medical lab technology
- Introduction to health care
- Basic computer
- Community health
- Computer technology
- Safety and first aid

You should also discuss your plans with a teacher, counselor or parent, and check to see what work-based learning opportunities,

such as field trips, job shadowing and internships, are available in your community.

Are there jobs available?

There are currently about 15 job openings a year for radiographic technologists in Alaska, and this occupation is expected to continue to grow quickly (25.6 percent growth compared to 14.8 percent for all occupations).

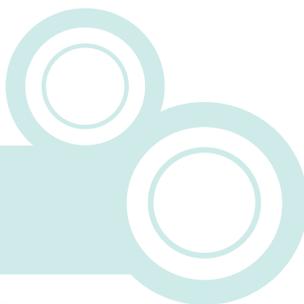
Where are the jobs?

Radiographic technologists work wherever there is a health care provider who has the equipment and authority to order images. About half of all radiographic technologists work in hospitals, while others work in doctors' offices, medical labs, clinics and dental offices.

What else is on this pathway?

Want to learn about other possible opportunities in the diagnostic services career pathway? Be sure to read about medical laboratory technicians — another diagnostic services "hot job" in Alaska!





ethan nelson

RADIOGRAPHIC TECHNOLOGIST

When Ethan Nelson found out his sister was expecting twins, he not only realized he was going to be an uncle, he also discovered his future career – a radiographic technologist, also called a radiology technologist.

“When my sister dragged me along to one of her ultrasound exams, I was so intrigued by the technology, the images and the professionalism of the ultrasound technologist that I looked into the field,” said Ethan, who had been taking classes at the University of Alaska Fairbanks (UAF), but was unsure what he wanted to do career-wise.

Ethan soon found that a radiology technology program was offered through UAF by the University of Alaska Anchorage. He enrolled and, two years later, he graduated with an associate of applied science in radiology technology and is now working in the field. Currently employed at Fairbanks Urgent Care, Ethan recently accepted a position at Fairbanks Memorial Hospital.

“I enjoy working at a small clinic, but I really want to work in a hospital where the full extent of my radiology skills can be applied,” said Ethan, who was recently awarded the title of registered technologist by the American Registry of Radiologic Technologists.

In his job, Ethan said he uses a combination of quality patient care and X-ray equipment to obtain diagnostic images for radiologists to read and provide diagnoses.

“With radiology technology, I get to interact with people and am also taking part in improving the lives of those in need through the use of cutting-edge technology,” he said. “I love that each workday is so diverse and unique. Every patient has different needs to be met. I never know what learning experience is waiting around the corner for me.”

In the future, Ethan said he is interested in furthering his education and going into a specialized field, such as computerized tomography (CT). He said he is also interested in teaching.

“It may seem like a lot of work to become a radiology technologist, but it is all worth it,” he said.

