

Clinical Laboratory Technologists and Technicians

SOC: 29-2010 • Career Profile Report

■ Key Facts

\$61,890

Median Salary

351,200

Employment

+2.0%

Growth Rate

■ Requirements & Salary Range

Education: Bachelor's degree

■ Automation Risk Assessment

Low Risk - 8.0% probability of being automated in the next 10-20 years.

This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■■ Work-Life Balance

5.1/10 - Fair work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	5.4/10	Investigative	8.6/10
Artistic	4.8/10	Social	9.0/10
Enterprising	5.4/10	Conventional	6.2/10

■ Top Skills Required

Analytical skills, Detail oriented, Dexterity, Interpersonal skills, Physical stamina

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Clinical Laboratory Technologists and Technicians perform **laboratory tests and analyses on blood, tissue, and other body fluids to help diagnose, treat, and prevent diseases**. They operate specialized equipment, maintain lab safety, and ensure the accuracy of test results. Their work is critical in healthcare, medical research, and patient diagnostics.

This career is well suited for individuals who enjoy science, laboratory work, and attention to detail.

What Do Clinical Laboratory Technologists and Technicians Do?

These professionals conduct tests, analyze samples, and report findings to healthcare providers.

Common responsibilities include:

- Collecting, preparing, and analyzing biological specimens
- Operating and maintaining laboratory instruments and equipment
- Performing tests in hematology, microbiology, chemistry, and immunology
- Recording, interpreting, and reporting test results
- Ensuring compliance with safety and quality standards
- Troubleshooting equipment or procedural issues
- Collaborating with physicians, nurses, and lab staff

Key Areas of Laboratory Work

Technologists and technicians may specialize in specific tests, equipment, or patient populations:

- Clinical Chemistry and Hematology: Measuring chemical components and blood cells
- Microbiology: Identifying microorganisms and pathogens
- Immunology and Serology: Analyzing immune responses and antibodies
- Equipment and Quality Control: Calibrating instruments and ensuring accuracy
- Data Documentation and Reporting: Maintaining precise lab records and patient data

Skills and Abilities Needed

These professionals combine scientific knowledge, technical expertise, and analytical skills.

Core Professional Skills

Personal Qualities That Matter

Education and Career Pathway

This role typically requires formal education, training, and certification:

- Associate or Bachelor's Degree (minimum): Clinical laboratory science, medical technology, or related field
- Clinical Training and Internship: Hands-on laboratory experience under supervision
- Certification or Licensure: Credentialing through professional organizations
- Continuing Education: Staying current with laboratory techniques, safety standards, and medical advancements
- Specialized Training (optional): Advanced testing, instrumentation, or clinical specialties

Where Do Clinical Laboratory Technologists and Technicians Work?

They are employed in organizations providing healthcare diagnostics and research:

- Hospitals and Medical Centers
- Clinical and Diagnostic Laboratories
- Research and Pharmaceutical Institutions

- Public Health and Government Agencies

- Blood Banks and Biotech Companies

Work environments include laboratories, hospitals, clinics, and research facilities.

Is This Career Difficult?

This career requires scientific knowledge, precision, and adherence to safety standards. Technologists and technicians must handle biological samples carefully and ensure accurate, reliable test results.

Who Should Consider This Career?

This career may be a strong fit if you:

- Enjoy working in scientific and medical settings
- Are detail-oriented and analytical
- Have technical skills and manual dexterity
- Can follow strict protocols and safety procedures
- Want a career contributing to patient care, diagnostics, and medical research

How to Prepare Early

- Take courses in biology, chemistry, and laboratory science
- Participate in internships, volunteer work, or lab assistant roles
- Develop skills in lab equipment operation and data analysis
- Explore accredited programs in clinical laboratory science or medical technology
- Gain hands-on experience in laboratory procedures and patient specimen handling

Clinical laboratory technologists and technicians perform vital testing and analysis, supporting accurate diagnoses, effective treatment, and advancements in healthcare.

*Generated by StartRight • Data from U.S. Bureau of Labor Statistics & O*NET*

Source: <https://www.bls.gov/ooh/healthcare/clinical-laboratory-technologists-and-technicians.htm>