

Medical Laboratory Scientists (also called medical technologists) are often an unrecognized part of the health care team, but are vitally important to the evaluation, diagnosis, and treatment of patients. Approximately 70-80% of medical decisions are based upon laboratory test results.

Medical Laboratory Scientists are highly skilled and knowledgeable professionals trained in many different aspects of laboratory science. Their multidisciplinary education and training prepare them for many tasks, including the ability to:

- Culture and identify microorganisms and determine which antibiotics will help the patient
- Perform cell counts and identify cells under the microscope in blood and other body fluids
- Run chemical testing on blood samples to determine how well a patient's organs are functioning
- Run molecular testing on samples to determine if a patient is infected with a particular disease
- Perform serological testing on samples to look for antibodies to particular pathogens
- Type, cross-match and issue blood products for transfusion

Medical Laboratory Scientists not only perform the testing, but they also are able to correlate test results with clinical information to determine the validity of the results. They are trained to understand what the test results mean and what factors can interfere or affect the test results.

Medical Laboratory Scientists work in facilities such as hospital laboratories, medical clinics, blood banks and public health laboratories. They also routinely work with laboratory information systems and laboratory equipment.

Medical Laboratory Scientists must earn a bachelor's degree in clinical or biological science and participate in a one-year internship at a hospital laboratory. Then they must pass a national certification exam. Montana also requires professional licensure for Medical Laboratory Scientists. For information about the Montana University System Medical Laboratory Science program, see [About the Program - Department of Microbiology & Cell Biology | Montana State University](#)

Some community colleges also offer a medical laboratory technician program. Medical Laboratory Technicians are able to do many of the same tasks as Medical Laboratory Scientists but may have more limited career opportunities depending on the state and/or facility credentialing and licensing requirements. See [Miles Community College](#) for more information.