

CLINICAL LABORATORY CAREERS



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SOMETHING TO THINK ABOUT

- What is your body going through when you get sick?
- Where does your blood go after it is drawn?
- How do doctors come up with their diagnoses?



QUICK FACTS

- The laboratory team assists in
 - Determining presence and absence of disease/abnormalities within the body
 - Evaluating the effectiveness of treatments
- 80% of all physician decisions are based on lab test results

THE LABORATORY

- Are you looking for a career where you can help others in the healthcare field without being a doctor or nurse?
- A career in clinical laboratory science offers:
 - Many benefits
 - Lots of job opportunities
 - Room for advancement
 - Job security

DEPARTMENTS IN LABORATORY

- Blood Banking
- Chemistry
- Hematology/Coagulation
- Urinalysis
- Microbiology

BLOOD BANKING

- Determine Blood types – ABO and Rh typing
- Prepare blood and components for transfusions
- Antibody screening
- Antibody identification



CHEMISTRY



- Chemical testing on blood and urine
- Some examples of testing include:
 - Cholesterol
 - Electrolytes
 - Enzymes
 - Hormones
 - Vitamins
 - Blood Glucose
 - Drug Concentrations

CHEMISTRY

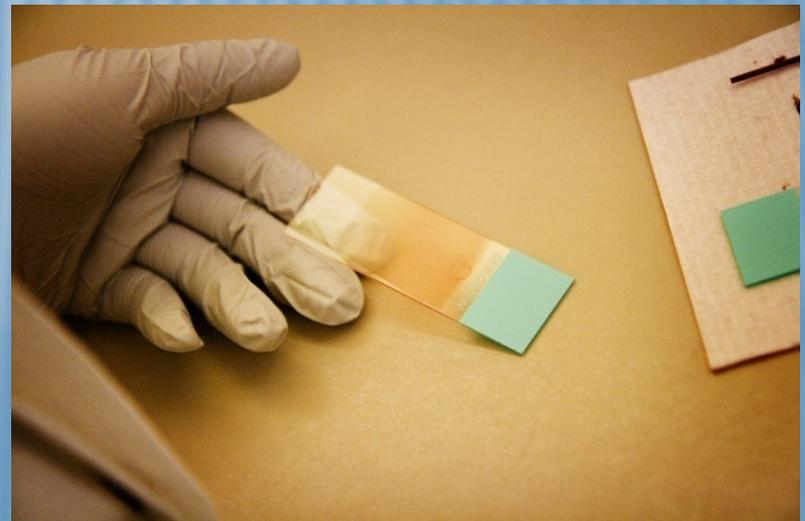
- Additional testing
 - Detect antibody production to diseases/infections
 - Allergies
 - Hepatitis
 - HIV
 - Herpes
 - Many more...
 - Molecular diagnostics such as PCR
 - Blood gas analysis



HEMATOLOGY



- Microscopic Examination of:
 - Red blood cells
 - White Blood Cells
 - Platelets
- Look for anemia, leukemia, and other abnormalities



HEMATOLOGY

- Automated blood cell counts
- Coagulation
 - Test ability of blood to clot
 - Give results for drug therapy
 - Heparin
 - Coumadin



URINALYSIS

➤ Analysis of urine for elements such as

- Glucose
- Protein
- Blood
- Ketones
- Bilirubin
- pH
- Crystals
- Bacteria



MICROBIOLOGY

- Work with agar plate/tube media
- Identification of bacteria, fungi and parasites
- Determine antibiotic sensitivity



SKILLS REQUIRED

- Aptitude for science course work
- Good hand/eye coordination and manual dexterity
- Good communication skills
- Detail orientated
- Organized and able to multitask
- Works well under pressure
- Ability to work as a team player
- Desire to help others

PLACES OF EMPLOYMENT

- Hospitals
- Clinics
- Research facilities
- Industries
- Universities
- Government
- Veterinary/zoos
- Public health
- Reference labs
- Forensics
- Law
- Other health related agencies
- And many more...

AVAILABLE CAREERS IN THE LABORATORY

- Clinical Laboratory Scientist/Medical Technologist (CLS/MT)
- Clinical Laboratory Technician/Medical Technician (CLT/MLT)
- Pathologist (MD)
- Pathologist Assistant (PA)
- Cytotechnologist (CT)
- Histotechnologist (HTL)
- Histotechnician (HT)
- Phlebotomist



CLS/MT

- Bachelors Degree
- One year training in an accredited education program
- ASCP (MT) or NCA (CLS) certification
- Performs laboratory testing on blood, urine, feces, spinal fluid and other body fluids
- Uses microscopes and operates complex automated instruments
- Assists physicians and pathologists in diagnosis of disease

CLT/MLT

- Two year Associates Degree program
- ASCP (MLT) or NCA (CLT) certification exam
- Performs laboratory testing under supervision of CLS/MT



PATHOLOGIST/PATHOLOGY ASSISTANT

➤ Pathologist

- Bachelors degree + Medical Doctorate degree + 3-8 year internship/residency
- A physician who studies and examines body fluids, tissues and cells
- Perform autopsies

➤ Pathology Assistant

- Bachelors degree + 2 year pathology assistant program
- AAPA exam/Masters degree
- Assist pathologist in their duties

CYTOTECHNOLOGIST

- Bachelors degree + CT (ASCP) exam
- One Year Cytotechnology program
- Examines and identifies abnormal cells
- Screening of PAP smears and other body fluids



HISTOLOGIST/HISTOTECHNICIAN

➤ Histotechnician

- Associates degree + HT (ASCP) exam
- Prepares microscope slides from solid tissues from biopsy samples for examination under microscope

➤ Histologist

- Bachelors degree + HTL (ASCP) exam
- Studies tissue samples

PHLEBOTOMIST



- Trained to draw blood from patients for laboratory testing
- Specialized 3-6 month training



JOB OUTLOOK

- Employment is expected to grow 14% between 2006 and 2016
- In 2006, clinical laboratory technologist and technicians held 319,000 jobs in the U.S.
- WA State Salary estimates
 - CLS/MT: \$43,260-\$58,250
 - CLT/MLT: \$25,900-\$35,400
 - <http://www.bls.gov/oco/ocos096.htm>

TRAINING PROGRAMS IN WASHINGTON STATE

- Clinical Laboratory Science/Medical Technologist
 - Heritage University Yakima Regional CLS Program
Contact: Terese Abreu, M.A., CLS (NCA), MT (ASCP)
Phone: (509) 865-8642
email: clinicallab@heritage.edu
website: <http://www.heritage.edu>

 - Sacred Heart Medical Center
Contact: Cynthia Hamby, MEd, MT(ASCP)
Phone: (509) 474-3339
email: hambyc@shmc.org
website: <http://www.shmclab.org>

TRAINING PROGRAMS IN WASHINGTON STATE

➤ Clinical Laboratory Science/Medical Technologist

- University of Washington

Contact: Mary Lampe, PhD

Phone: (206) 598-2135

email: lampe@u.washington.edu

web site:

<http://depts.washington.edu/labweb/Education/MedTech/index.htm>

TRAINING PROGRAMS IN WASHINGTON STATE

➤ Clinical Laboratory Technician/Medical Laboratory Technician

- Clover Park Technical College

Contact: Anne O'Neil, MT (ASCP)

Phone: (253) 589-5625

email: anne.oneil@cptc.edu

website:

<http://www.cptc.edu/wrl.asp?iSRN=11021&t=wrl>

- Renton Technical College

Contact: Michael Sealfon, PhD

Phone: (425) 235-2352 Ext 2018

email: msealfon@rtc.edu

website:

<http://www.rtc.edu/programs/TrainingPrograms/CertifiedMedicalLabTech/>

TRAINING PROGRAMS IN WASHINGTON STATE

- Clinical Laboratory Technician/Medical Laboratory Technician
 - Shoreline Community College
Contact: Molly Morse
Phone: (206) 546-6947
email: mmorse@shoreline.edu
website:
<http://www.shore.ctc.edu/shoreline/medlablocal.html>
 - Wenatchee Valley College
Contact: Pamela Wilson-McNamara
Phone: (509) 682-6668
email: pwilson-mcnamara@wvc.edu
website: <http://www.wvc.edu/go/mlt>

TRAINING PROGRAMS IN WASHINGTON STATE

➤ Histotechnician

- Clover Park Technical College

Contact: Rebecca Haggerty, HT (ASCP)

Phone: (253) 589-4526

Email: Bekki.Haggerty@cptc.edu

Website:

<http://www.cptc.edu/wrl.asp?iSRN=11073&t=wrl>

ADDITIONAL INFORMATION

- Visit www.naacls.org for a complete listing of accredited programs
- Other useful sites
 - www.labcareers.org
 - www.ascls.org
 - www.nca-info.org
 - www.labsarevital.com

BECOME A LABORATORY PROFESSIONAL TODAY!



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