



Characteristics of good technician

Medical laboratory technician requires experience in different technical fields. Individuals employed in this area must use computers and electronics. The skills include general computer hardware, software, and electronics knowledge. Required medical software expertise includes knowledge in Electronic Medical Record (EMR) software, test-routing software, test result distribution software, and laboratory Information System (LIS) software. Knowledge of databases, spreadsheets and word processing programs are often required.

What does a Laboratory Technician do?

- 1- Prepare and carry out diagnostic laboratory tests
- 2- Operate and maintain laboratory standard equipment such as centrifuges, titrators , pipetting machines and pH meters.
- 3- Prepare specimens
- 4- Supervise experiments as they run.
- 5- Clean lab equipment and keep it in serviceable condition.
- 6-Mix compounds during the manufacturing process





How To avoid contamination of Specimen

1- Wear proper protective equipment

Most labs require individuals to follow certain protocols regarding personal protective equipment. Wearing gloves, hairnets, pants, lab coats, and close-toed shoes. This equipment protects both the person wearing it and reduces contamination. Personnel should never reuse disposable gloves and they should always change them when moving between samples to further reduce the risk of contamination

2- Clean and sterilize equipment

Maintaining a sterile work environment is crucial to avoiding contamination. Be sure to thoroughly clean and sterilize every piece of lab equipment regularly. For some pieces of equipment, such as glassware, this may be as frequent as every day.

3- Check your water supply

If all of your samples including your negative control have been contaminated then it could be your water supply. In the lab, deionized water and distilled water are normally used to prevent contamination

4- Use air filters and laminar flow hoods

When you are transferring samples it is critical to work in an environment where the air will not interfere with your sample. You should work in a hood that keeps air moving, preventing microbes in the air from landing. Air filters trap contaminants in the air, keeping your environment sterile.



HOW TO AVOID LAB CONTAMINATION

Contamination can occur during various points in the lab process. However, there are measures you can take and protocols you can establish to reduce this risk and avoid contamination in lab samples.

1 **AUTOMATE THE PROCESS WITH LAB AUTOMATION**



2 **WEAR PROPER PROTECTIVE EQUIPMENT**



3 **STERILIZE EQUIPMENT**



4 **CHECK YOUR WATER SOURCE**



5 **CLEAN SURFACES REGULARLY**



6 **REDUCE THE NUMBER OF TOUCHES**



7 **USE AN AIR FILTER AND LAMINAR FLOW HOOD**



8 **STAY ORGANIZED**



Aurora
ILLUMINATING SOLUTIONS

*Human Physiology
Specimen collection
Lab. 2*



What is Specimen Collection?

Collecting specimens is the process of acquiring tissue or fluids for laboratory analysis. Some of the samples collected may include serum samples, virology swab samples, biopsy and necropsy tissue, cerebrospinal fluid, whole blood for PCR, and urine samples. Medical Assistants collect these samples and then place them in specific contain

Specimen Collection Steps

Here are some of the general guidelines you should follow when collecting specimens from a patient:

- 1- Verify the patient's identity. Some examples of acceptable identifiers the patient's name, date of birth, and hospital number include
- 2- Acquire a sample from the patient. Treat all biological material as potentially hazardous and follow your facility's guidelines.
- 3- Process the specimen as required by your facility or employer.
- 4- Store the specimen. Appropriate storage is critical to maintaining the integrity of the specimen and, therefore, the test results.