Human Physiology

It is the scientific study of functions and mechanisms in a living system.

Medical laboratory technicians

*The medical technologist performs a full range of laboratory tests- from simple blood tests, to more complex tests to uncover diseases such as AIDS, diabetes, and cancer.

*Medical technologists hold life and death in their hands, because the information they give to the doctor influences the medical treatment a patient receives.

 *Medical technologists due much more than examine specimens through a microscope, they operate complex electronic equipment and computers.

*Medical technologists work in five major areas of the laboratory: Blood banking, Chemistry, Hematology, Immunology and Microbiology.

Few qualities a lab technologist must possess:

1- **Technological Skills:** Individuals working in this field must be proficient in the use of computers and electronics.
2- **Communication Qualities:** include listening and speaking skills, but they also include writing skills, as medical laboratory technicians must be able to accurately record and document their test results.
3- **Other Qualities:** Laboratory technicians need to be strong problem-solvers and exhibit strong analytical thinking skills.

Contamination

Contamination: is undesired introduction of impurities like chemical, microbial or physical matter to the sample.

Sources of contamination in Lab Samples

1- Sample environment.
2- Sample container.
3- Sampling Tools.
4- Contamination from other laboratory samples.
5- Contamination from substandard reagents.
6- Contamination from analyst.
7- Contamination arising from visitors' entry.

How to Avoid Contamination in Lab Samples

1- Wear gloves and a lab coat and keep long hair tied back.
2- Automate the process.
3- Clean and sterilize equipment.
4- Stay organized.
5- Wipe down working surfaces with ethanol.

Types of Specimens

1- Whole blood.
2- Serum samples.
3- Cerebrospinal fluid.
4- Swab samples
5- Urine samples.
6- Stool samples.
7- Semen samples.

Specimen Identification

1- Patients Full Name.
2- Name of test to be performed.
3- Date and time of sample collection.
4- Type of specimen.