Medical Laboratory Technician

A medical laboratory technician is a person who examines bits of tissue or blood from a person to look for diseases. These important medical specialists help the doctor learn what's wrong with their sick patients. Two types of medical lab techs are outlined below.

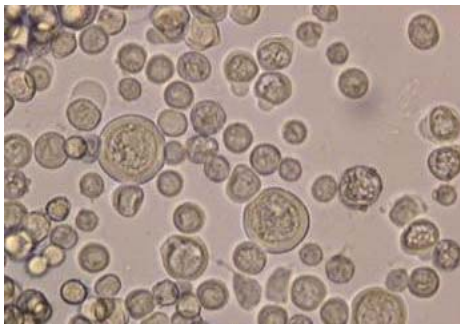
Career Path

To become a medical laboratory technician, students must work hard in their math and science courses in high school, especially chemistry! Most medical lab techs enter a two year training program after high school and earn an associates degree.

Histologist

Histologists prepare samples of human tissue for examination under a microscope. These specialists freeze and slice samples of tissue, mount the slices on a slide and stain them with chemicals that allow the tissue's cells to be seen more clearly. This painstaking work must be done with a steady hand!

The picture on the right shows human tissue cells that have been mounted on a slide and stained.



Cytotechnologist

Cytotechnologists look for small changes in cells that indicate a person may have cancer or some other disease. They use a microscope to examine the cells for abnormal shape, color or size. They must work very carefully to avoid mistakes!

Technology Spotlight

The picture on the right shows a medical lab tech putting blood samples into a machine called a centrifuge. This machine spins the blood to separate the cells in the blood into different layers. Then a histologist can remove cells from a particular layer and prepare them to be studied under a microscope. The cytotechnologist will examine the prepared cells for signs of cancer or other diseases.

To find out how a centrifuge separates cells in the blood, you can try out this fun activity:

1. Mix 3 tablespoons of corn oil and 3 tablespoons of sand into a cup of cold water.
2. Pour this mixture into an empty 500 ml water bottle, cap it and shake it up.
3. Tie a string tightly around the neck of the bottle. Make sure it is secure.
4. Go outside and, holding the string, swing the bottle around in a circle for 30 seconds. Make sure there is no one nearby who could be hit by the bottle!
5. Carefully set the bottle down (don't shake it!) and examine the mixture. Can you see layers? The dense sand is at the bottom and the less dense oil is on top.