

BIOS255 Week 4 Lymphatic System

Learning Objectives:

- State the components and functions of the lymphatic system
- Trace lymphatic drainage through the major vessels of the lymphatic system.
- Identify the mechanisms that cause movement of lymph through the lymph vessels.

Introduction:

The lymphatic system consists of lymphatic fluid, lymphatic vessels, lymphatic tissue, and lymphatic organs located throughout the tissues of the body. It functions to drain excess interstitial fluid from the tissues, to initiate an immune response against disease by producing and transporting lymphocytes, and to transport dietary lipids absorbed by the gastrointestinal tract into the blood. Lymphatic capillaries extend throughout the tissues of the body among blood capillary beds. Interstitial fluid, similar in composition to blood plasma, leaches from the blood capillaries into the surrounding tissue, bathing the cells and supplying each one with nutrients, oxygen, and water while also removing waste, carbon dioxide, and water. Around 30 liters of fluid enter the arteriolar end of capillaries every day, but only 27 liters return to the venous capillaries. The lymphatic system collects the missing 3 liters from the interstitial space and returns it to the venous system. Let's explore this system that can be found in so many different places and perform multiple roles!

Assignment

Part 1: Complete the activities on Anatomy.TV for the Lymphatic System and Immunity: Introduction, Vessels and Circulation, Organs and Tissues.

To access Anatomy.TV: Resources tab>Library>Library Resources-Database A-Z>Anatomy.TV>Titles(default tab): Choose Lymphatic system and Immunity>choose assigned sections

You will then work through the material and activities by scrolling down on the right. This will allow you to see and work through all activities for that section.
As you complete the lab activities, have the lab report ready to record data.

Part 2: Complete the lab report.

Lymphatic System Lab Report

1. List the 4 components of the lymphatic system described in the introduction. (1 point; 1/4 point each)
 - The four components of the lymphatic system are the lymph, lymphatic vessels, lymphatic tissue and lymphatic organs.
2. List 3 functions of the lymphatic system. (1.5 points total; 1/2 point each)