

# UNIT 8 - BLOOD / LYMPHATIC / CARDIOVASCULAR SYSTEMS

## ACTIVITY - Lymphatic System Worksheet

Name \_\_\_\_\_ Period \_\_\_\_\_

1. Identify the six structures most commonly associated with the lymphatic system and describe their location and role in preventing illness and/or disease.

Organ/Structure	Location	Role/Function
A.		
B.		
C.		
D.		
E.		
F.		

Identify the most appropriate answer for the following questions pertaining to the Lymphatic System.

2. The lymphatic network begins with microscopic tubes known as:

- a. Lymph vessels
- b. Lymphatic capillaries
- c. Protein filaments
- d. Lymphatic ducts

3. The lymphatic capillaries are found:

- a. Among vascular capillary beds
- b. In the brain
- c. In the spinal cord
- d. In bone tissue

4. What prevents lymph from leaking into extracellular spaces?

- a. Valves
- b. Overlapping endothelial cells
- c. Low pressure in the capillaries
- d. Gaps between the endothelial cells

5. Which of the following is most like lymphatic vessels in structure:
- Capillaries
  - Veins
  - Venules
  - Collecting ducts
6. Which of the following is NOT true of lymph nodes?
- They gradually increase in size and eventually merge into collecting ducts
  - They are small
  - They are generally oval in shape
  - They receive and pass on lymph by way of lymphatic vessels
7. Numerous lymphatic vessels merge to form:
- Lymphatic capillaries
  - Lymphatic nodes
  - Collecting ducts
  - Peyer's patches
8. The main collecting vessel for the lymphatic network draining lymph from the left side of the body is the:
- Thoracic duct
  - Right lymphatic duct
  - Squamous lymphatic duct
  - Cranial duct
9. Which lymphatic duct empties into the left subclavian vein?
- Thoracic duct
  - Right lymphatic duct
  - Cerebral aqueduct
  - Choroid plexus
10. Which of the following statements is FALSE concerning movement of lymph through the body?
- Pressure gradients are essential in the movement of lymph
  - The accumulation of protein in interstitial fluid affects lymph movement
  - Lifting weights affects lymph movement
  - Blood pressure is a major factor in the movement of lymph

11. Identify and describe three mechanisms of movement of lymph through the lymphatic vessels.

A.

B.

C.

12. Arrange the following lymphatic vessels in sequences from smallest to largest or most distal to most proximal within the lymphatic system.

Collecting ducts

Lymphatic capillaries

Lymphatic vessels

13. Define Antigens

14. Define Antibodies

**WORKSHEET - Lymphatic System Worksheets - KEY**

1. Organ/Structure	Location	Role/Function
A. Lymph Nodes	throughout the body but concentrated in the neck, groin, armpit, and abdominal cavities	remove foreign particles and cleans lymph fluid from
B. Spleen	left side of the abdominal cavity just below the diaphragm - LUQ	a blood reservoir and filter for removing foreign particles and old cells from the blood and lymph
C. Thymus Gland	in the mediastinum just superior to the heart	site of T lymphocyte maturation
D. Tonsils	mouth and throat (3) pairs palatine, pharyngeal, and lingual	destroy pathogens in the mouth and throat region
E. Peyer's Patches	within the walls of the small intestines	destroys pathogens trying to pass through the intestinal wall
F. Bone Marrow (Red)	middle of flat bone and the epiphysis of long bones	production of blood cells and the maturation of B lymphocytes

2. B 3. A 4. C 5. B 6. A 7. B 8. A 9. A 10. D

- 11. A. Pressure gradients from the extra cellular space into the lymphatic capillaries and lymphatic vessels
  - B. Moves toward the collecting ducts and toward the heart by way of skeletal muscle pumps
  - C. Assisted in movement toward the heart by the presence of one way valves within the lymphatic vessels
12. Lymphatic capillaries, Lymphatic vessels, Collecting Ducts
13. Antigens : any foreign substance that stimulates an immune response
14. Antibodies: proteins produced by cells that react with antigens by binding with them to form an antigen-antibody complex