Lymph Massage

COMPLETION: In the space(s) provided, write the word(s) that correctly complete(s) each statement.

1. The Danish practitioner credited with developing manual lymph drainage massage was **(Dr. Emil Vodder)**.

2. Thin-walled tubes that collect lymph from interstitial fluid in the tissues are called **(lymph capillaries)**.

3. White blood cells produced in the lymph system are known as **(lymphocytes)**.

4. Small bean-shaped masses of lymphatic tissue located along the course of lymph vessels are termed **(lymph nodes)**.

5. The principal massage manipulations used in lymph are **(very light circular or elliptical movements)**.

6. Specialized lymph vessels in the walls of the small intestine called **(lacteals)** carry away a milky fluid called **(chyle)**.

7. The French doctor who developed methods to recognize the rhythm and flow of superficial and deep lymph is **(Dr. Bruno Chikly)**.

8. Lymphocytes produced in the bone marrow that migrate to and mature in the thymus are called **(T-lymphocytes)**.
SHORT ANSWER: In the spaces provided, write short answers to the following questions.

1. Where does lymph reenter the bloodstream?

   (At the angulus venosus—the subclavian vein near the junction of the jugular vein)

2. What is the percentage of the interstitial fluid that is reabsorbed into the circulatory system becomes lymph?

   (between 2 percent and 20 percent)

3. What causes lymph to move through the system?

   (differences of pressure within the lymphatic system because of the valves within the system, internal pressure of the smooth muscles in the larger collector vessels, and external pressure from normal respiration and muscular contractions)

4. The main functions of the lymph nodes are

   a. (The filtration of toxins and other elements from the lymph)
   b. (The breakdown or destruction of harmful substances by the action of lymphocytes and phagocytes)
   c. (Concentration of lymph by reabsorbing fluid back into the venous system)
   d. (Production of monocytes and lymphocytes)

5. Most of the lymph nodes that drain the flow of superficial lymph are located in which areas of the body?

   a. (the side of the neck)
   b. (the axillary area)
   c. (the inguinal crease)

6. What are the primary lymphoid organs where lymphocytes are produced?

   (bone marrow and thymus)

7. What are the secondary lymphoid organs where lymphocytes reside in high concentrations?

   (spleen, tonsils, adenoids, appendix, and the lymph nodes)
8. How are lymph massage manipulations applied in terms of pressure, rhythm, and frequency?

(light touch, 1 to 8 oz/in², elliptical or circular movements with slightly more pressure in the direction of lymph flow, and 4 to 10 repetitions /minute)

9. In which direction is lymph massage given?

(in the direction of lymph flow)

10. When lymph massage is done on the leg, where should the manipulations begin?

(in the inguinal area)

MULTIPLE CHOICE: Carefully read each statement. Choose the word or phrase that correctly completes the meaning and write the corresponding letter in the blank provided.

1. The _____ is considered to be a primary lymphoid organ.
   a) spleen c) bone marrow
   b) lymph node d) all of the above

2. Lymph massage movements
   a) begin and end at the site of local lymph nodes
   b) are circular or slightly elliptical
   c) use a light pressure and slow rhythm
   d) all of the above

3. There are approximately _____ lymph nodes in the human body.
   a) 40 to 100 c) 400 to 1000
   b) 200 to 400 d) 2,500 to 5,000

4. Small, thin-walled tubes that collect lymph from interstitial fluid are called
   a) lymph capillaries c) Peyer’s patches
   b) lymph nodes d) lacteals

5. Lymph vessels in the walls of the small intestine that carry away fat are called
   a) fat blockers c) adipose ducts
   b) lacteals d) lymph capillaries

6. Submaxillary lymph nodes are located under the
   a) cranium c) armpit
   b) tongue d) stomach
**WORD REVIEW:** The student is encouraged to write down the meaning of each of the following words. The list can be used as a study guide for this unit.

*angulus venosus*

*(Angulus venosus is the juncture of the jugular and subclavian veins.)*

*chyle*

*(Chyle is a cloudy liquid, consisting mostly of fats, that passes from the small intestines, through the lacteals, and into the lymph system.)*

*cisterna chyli*

*(The cisterna chyli is a collecting area for lymph located deep in the abdomen at the base of the thoracic duct.)*

*lacteals*

*(Lacteals are lymphatic capillaries located in the villi of the small intestine.)*

*lymph*

*(Lymph is the portion of the interstitial fluid that is absorbed into the lymph capillary system. It consists of water, proteins, cellular debris, bacteria, viruses, and other inorganic materials.)*

*lymph nodes*

*(Lymph nodes are nodules located along the larger lymph vessels that contain a large concentration of lymphocytes and serve to filter and neutralize bacteria and toxins collected in the lymph.)*

*lymphatic capillaries*

*(Lymphatic capillaries are the smallest vessels where interstitial fluid enters the lymph system.)*
pre-collectors

(Pre-collectors are small lymph vessels situated between lymph capillaries and collectors.)

watershed

(Watershed is the separation lines where lymph moves into different drainage territories.)