



8

Lymphatic System

LEARNING OBJECTIVES

After studying Chapter 8 in the textbook and completing this section of the workbook, students should be able to:

1. Conduct a history related to the lymphatic system.
2. Discuss examination techniques for the lymphatic system.
3. Identify normal age and condition variations to the lymphatic system.
4. Recognize findings that deviate from expected findings.
5. Relate symptoms or clinical findings to common pathologic conditions.

TEXTBOOK REVIEW

Chapter 8 Lymphatic System (pages 225–250)

CONTENT REVIEW QUESTIONS

Multiple Choice

Circle the correct answer for each of the following questions.

1. During an examination, which one of the following questions would be most appropriate for the examiner to ask a patient to elicit information about the lymph system?
 - a. “Are you aware of any lumps?”
 - b. “Have you had a change in appetite?”
 - c. “Do your lymph nodes hurt?”
 - d. “Where are your largest lymph nodes?”
2. While palpating lymph nodes on an adult, the examiner should remember that:
 - a. tubercular nodes are hot and firm to the touch.
 - b. nodes that are fixed and palpable are a normal finding.
 - c. heavy pressure is required to locate and identify nodes.
 - d. easily palpable nodes are generally not found in healthy adults.

3. In comparison with those of a young adult, the lymph nodes on an older adult will be:
 - a. large and soft.
 - b. small and fatty.
 - c. hard and irregular.
 - d. large and hard.
4. A 19-year-old male has a severe infection involving the fifth digit of the right hand. Where should the examiner expect to palpate enlarged and tender lymph nodes?
 - a. radial aspect of the wrist
 - b. palmar aspect of the hand
 - c. medial condyle of the humerus
 - d. preauricular nodes
5. Which of the following examination findings is cause for concern in an adult?
 - a. A palpable lymph node moves under the examiner's fingers.
 - b. A palpable lymph node is fixed in its setting.
 - c. A palpable lymph node is approximately 3 mm in size.
 - d. The lymph node is not palpable.
6. The most common causes of acute suppurative lymphadenitis are which organisms?
 - a. *Pseudomonas* and *Clostridium*
 - b. *Streptococci* and *Staphylococci*
 - c. *Candida* and *Chlamydia*
 - d. *Aspergillus* and *Escherichia*
7. The examiner typically will assess the lymph system using which of the following methods? Assess:
 - a. the entire lymph system as a unit, exploring all accessible nodes.
 - b. both superficial and deep nodes using palpation and a Doppler.
 - c. the lymph system region by region as each body system is assessed.
 - d. the lymph nodes only when the patient's history suggests a need to do so.
8. A 2-month-old infant is brought to the clinic for immunizations. The examiner palpates enlarged inguinal nodes. What additional finding might explain the enlarged nodes?
 - a. The mother reports that the infant suffers from colic.
 - b. The infant's length and weight are above the 85th percentile.
 - c. The infant has a severe diaper rash.
 - d. A port wine stain is present on the infant's left thigh.
9. As the examiner palpates an enlarged lymph node, the patient complains of pain. This is an indication of:
 - a. an inflammatory process.
 - b. Hodgkin's disease.
 - c. immature lymph node development.
 - d. malignancy.
10. Which examination method is used to differentiate an enlarged lymph node from a cyst?
 - a. palpation
 - b. auscultation
 - c. biopsy
 - d. transillumination
11. Which of the following methods best describes how to assess supraclavicular lymph nodes?
 - a. Place the patient in a supine position and ask the patient to hold his or her breath.
 - b. Place the patient in the Trendelenburg position, then illuminate the lymph nodes with a bright light.
 - c. Palpate deeply behind the clavicles as the patient takes a deep breath.
 - d. Palpate lightly below the clavicles with the patient in a sitting position leaning forward.

12. The examiner notes enlarged tonsils on a young child. The examiner should recognize that this:
 - a. is an indication of a retropharyngeal abscess.
 - b. may be an early indication of Epstein-Barr virus.
 - c. is an indication that the child has lymphoma.
 - d. may be a normal finding.

13. In addition to the head, neck, axillae, and inguinal area, the examiner may also assess lymph nodes in which location?
 - a. on the palmar aspect of the hands
 - b. in the popliteal region
 - c. in the patellar region
 - d. on the dorsum of the foot

14. A patient with tuberculosis is most likely to have which finding?
 - a. hard and fixed nodes
 - b. pulsating lymph nodes
 - c. "cold" lymph nodes
 - d. lymph node cysts

15. Which of the following is an assessment technique that can differentiate mumps from cervical adenitis?
 - a. palpating the angle of the jaw
 - b. palpating enlarged lymph nodes
 - c. noting painful lymph nodes
 - c. noting swelling of the face

Terminology Review

Matching

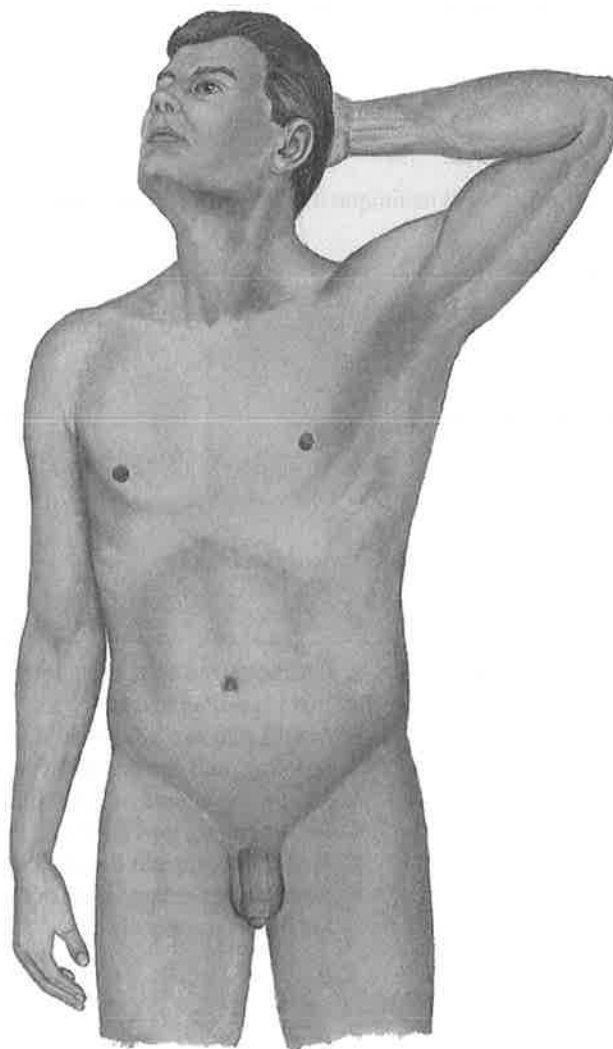
Match the disease or condition to its corresponding clinical findings.

Disease or Condition	Clinical Finding
16. _____ Acute lymphangitis	a. Characterized by a large, tender, firm node with overlying tissue that is swollen and red
17. _____ Acute suppurative lymphadenitis	b. Manifested in a young child who has fever, is restless and drooling, and sits up and hyperextends his neck to breathe
18. _____ Hodgkin's disease	c. Nonpitting edema to the extremities with thick overlying skin
19. _____ Retropharyngeal abscess	d. Red streaking moving up an extremity accompanied by fever
20. _____ Cat scratch fever	e. Nodal enlargement lasting longer than 3 weeks in a young child
21. _____ Lymphedema	f. Asymmetric enlargement of the cervical lymph nodes, which are rubbery, nonpainful

Anatomy Review

On the diagram below, complete the following activities:

1. Draw in the palpable lymph nodes in various regions.
2. Label the various regions of the lymph nodes that you have drawn.
3. Indicate with a number (1–6) the order in which you would palpate the head for lymph node examination.



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CASE STUDY

Mario is a 16-year-old male complaining of fatigue and weakness. Listed below are data collected by the nurse during an interview and examination.

Interview Data

Mario indicates he keeps a busy schedule with school, basketball, and work. He has always been a good student, but he seems to be having a harder time keeping up with everything. He feels he is beginning to let his family and friends down because fatigue and weakness are interfering with his performance at school and on the basketball court. Mario does not want to quit his job because he is saving for college. When asked about other symptoms, he denies changes in appetite or abdominal problems but reports that he thinks he sometimes has a fever.

Examination Data

General survey: Alert, thin male. Height 5 ft 7 in. Weight 140 pounds.

Skin: Skin color is pink. No evidence of bruising. No skin discoloration.

Thorax: Respirations even and unlabored, clear to auscultation. Heart rate and rhythm regular.

Abdomen: Bowel sounds auscultated. Abdomen soft, nontender, and nondistended.

Musculoskeletal: Moves all extremities; symmetrical. Moves joints without tenderness.

Head and neck: Enlarged and firm cervical lymph nodes. Supraclavicular nodes also palpable.

1. What data deviate from normal findings, suggesting a need for further investigation?
2. What additional questions could be asked by the examiner to clarify symptoms?
3. What additional examination data should be assessed?
4. What kind of problem(s) do you think the patient may have?

