

Preface

This Instructor's Manual was designed to accompany the Physical Assessment Findings CD-ROM and to supplement any physical assessment textbook. The Instructor's Manual includes the following material for each body system: student study outlines, learning objectives, instructor's notes, overview of assessment, suggested additional teaching strategies, and student lab guides and practicum forms.

Student study outlines and lab guides should be photocopied and given to students before the discussion of the applicable body organ system begins. Students can use these outlines to supplement their lecture notes and guide them through independent study of the CD-ROM. Each student study outline contains annotated learning objectives that are meant to guide the student in understanding the nuances of taking client health history; determining common variations in assessment findings related to age, gender, and ethnicity; identifying anatomic structures; and observing normal and abnormal findings during examination of a body system. Each student lab guide is designed for individual student use as a reference during examination of another student or friend.

The instructor's notes will help the instructor to use the CD-ROM as a lecture tool. These notes include an overview, annotated student learning objectives, teaching strategies, in-class activities, class assignments, and student evaluation (possible test) questions. The information in the instructor's notes and annotated student learning objectives is different from that information provided in the student study outline. The instructor's notes' version is designed to provide a source of additional information regarding variations of normal findings and pathology that are presented in the program.

The practicum form is a guide for the instructor to evaluate the student's performance, but it should not dictate the sequence. The examination of various body systems should be integrated. The sequence should be planned to minimize change of position of the client from sitting to supine.

In addition to the suggested teaching strategies provided in each individual chapter, I recommend the following strategies that apply to every body system:

1. Provide students with black-and-white unlabeled drawings of the anatomy to be discussed. Ask students to label the drawings in class and use colored pencils to highlight different structures. This exercise helps the student learn anatomy and the correct terminology.
2. Demonstrate the physical assessment in a clinical lab setting with examination tables and equipment as needed for each body system.
3. Ask students to select partners, practice assessment of the system being studied, record the subjective and objective findings on the student lab guide, and submit them to the instructor for evaluation.

The suggested combined use of the CD-ROM and this Instructor's Manual is as follows:

1. Photocopy the student study outline and lab guide for a given chapter and distribute to students.
2. Assign students to read the chapter on the particular body system in their physical assessment textbooks.
3. Review the specific body system on the CD-ROM in class as part of the lecture. Or assign students to review the specific body system on the CD-ROM before coming to the lecture.

4. Perform one or more of the suggested in-class activities provided in the Instructor's Manual.
5. Assign students one or more of the class assignments provided in the Instructor's Manual.
6. Evaluate student performance, and provide reinforcement of correct procedure and write-up. If the instructor is not physically present, as in distance learning situations, another method of evaluation will be required, such as observing the student on a monitor followed by subsequent student submission of the write-up.
7. Refer those students who do not achieve satisfactory progress on the assessment to the CD-ROM for further study.
8. Complete the practicum for selected body systems after the student has satisfactorily completed the didactic and clinical portions of the program. The practicum forms contain information identical to the student lab guides. Most baccalaureate and nurse practitioner programs require a final practicum that involves the student performing a complete examination of all body systems while being observed by the instructor.

REVIEWER

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Assessment of the Head and Neck

STUDENT STUDY OUTLINE

Annotated Learning Objectives

After reviewing the CD-ROM, the class text, and your lecture notes, you should be able to:

1. Identify appropriate questions to ask when obtaining a health history regarding the head and neck, including health promotion issues. List specific information to obtain when abnormalities are identified in order to facilitate development of the differential diagnosis.

History: Symptoms that may be the chief complaint or may be identified during the review of systems

The head and neck is divided into four sections:

- (1) head and neck, (2) lymphatics, (3) nose and sinuses, and (4) lips and oropharynx.

Head and neck

Headache

Describe onset, duration, frequency, location.

Describe the character of the pain—Dull, sharp, throbbing? Constant or varying in intensity?

Are episodes more severe in the morning or afternoon?

Associated symptoms that may help to determine the cause of the headache: nausea, vomiting, photophobia, disturbance in vision, lacrimation, nasal discharge

Identified precipitating factors: menstrual cycle, oral contraceptives, food additives, alcohol, fasting, seasonal allergies

What is the effect of medication taken to relieve headache or medications taken for other conditions?

Head trauma

Describe type of trauma.

Any alteration in level of consciousness?

Associated symptoms: nausea, vomiting, vertigo, blurred or double vision, urinary or fecal incontinence

Neck pain

Stiff neck—any precipitating factors identified:

injury, repetitive activity requiring neck extension or flexion, relieving or aggravating factors

What is the effect of attempts to relieve discomfort?

Character of the pain—Continuous or intermittent? Pain increased or relieved by movement?

Abnormal thyroid function

Symptoms of hyperthyroidism: heat intolerance, change of hair to a fine texture, increased skin moisture or smoothness, increased stool frequency, increased irritability or nervousness, decreased menstruation

Symptoms of hypothyroidism: cold intolerance, dry hair and skin, constipation, fatigue or lethargy, increased menstrual flow

Lymphatic system

History of swollen lymph nodes (glands)—Contact with individuals with respiratory infections or swollen glands? Are there any associated symptoms such as pain, fever, redness, warmth, red streaks?

Bleeding—What is the site of bleeding: nose, mouth, gums, stool?

Vascular skin lesions—Any petechiae? Purpura? Easily bruising?

Any history of recent infections or existing symptoms indicating present infection?

Edema—Unilateral or bilateral? Intermittent or constant? Gradual or sudden onset?

Past history

Head and neck

- Any head injuries? Neurological disorders?
- Headaches—Migraine? With or without aura?
 - Muscle contraction headache? Frequency?
 - Intensity? Treatment? Was treatment helpful?
- Thyroid problems—Hyperthyroidism, hypothyroidism, nodules, radiation to the neck?

Lymphatic system

- Any blood transfusions or use of blood products?
- Frequent infections?
- Chronic illnesses—Cardiac, renal, malignancy?
- Immunizations?

Family history

Head and neck

- Migraine headaches
- Neurological disorders
- Thyroid disorders

Lymphatic system

- Tbc
- Malignancy involving the lymphatic system
- Anemia
- Bleeding disorders

Health promotion

Head and neck

- Are seat belts worn when driving and as a passenger?
- Is protective headgear worn for hazardous sports or occupational hazards?
- Is there potential risk of injury?
- Any alcohol or street drug use?
- Any over-the-counter or prescription medications used?

Lymphatics

- Does the client incorporate a healthy lifestyle to maintain a high level of immunocompetence through appropriate nutrition, exercise, rest, and avoidance of drugs or excessive ingestion of alcohol?

2. Identify variations in the head and neck across the life span.

Head and neck

Infants and children

The cranial bones are soft at birth and separated by the saggital, coronal, and lamboidal sutures. The spaces between the cranial bones permit the expansion of the skull to accommodate brain growth. Ossification of the sutures begins after completion of brain growth, at about 6 years of age, and is completed by adulthood. The posterior fontanel usually closes by 2 months of age and the anterior fontanel by age 2 years.

Adolescents

Subtle changes in facial appearance occur throughout childhood.

In the male adolescent the nose and thyroid cartilage enlarge. Facial hair develops on the upper lip, then later on the cheeks and chin.

Pregnancy

There is a slight enlargement of the thyroid gland because of hyperplasia of the glandular tissue and increased vascularity. Thyroid function tests are altered with increased T3 and T4 and decreased T3 uptake, but thyroid function remains unchanged in the pregnant woman.

Older adults

With aging the rate of T4 production and degradation gradually decreases and the thyroid gland becomes more fibrotic. Older adults should have a TSH screen for hypothyroidism. In older adults subtle changes in thyroid function may not be recognized and symptoms such as forgetfulness and fatigue may be considered a part of aging by the client and the client's family.

If hypothyroidism is identified in an older client, the dosage of thyroid replacement must be carefully titrated to prevent a sudden increase in metabolism that could precipitate symptoms of ischemia such as angina pectoris.

Lymphatics

Infants and children

The ability to produce antibodies is still immature at birth, thus increasing an infant's vulnerability to infection during the first few months of life.

Lymphoid tissue is relatively plentiful in infants; it increases during childhood, especially between 6 to 9 years of age, and then regresses to adult levels by puberty.

The palatine tonsils are much larger during early childhood than after puberty. An enlargement of tonsils in children is not necessarily an indication of infection

Normally lymph nodes cannot be felt or seen. In adolescents and adults any increase in size is considered pathological. In children under 12

years of age, nodes may be found that indicate the child has recently had an infection. Sometimes these enlarged nodes take up to 6 months to return to normal. These nodes are called *shotty nodes* and are less than 1 cm in size. They are firm, mobile, and nontender; the nodes are not red or hot.

Pregnancy

During pregnancy the leukocyte count increases. Maternal host defenses are altered as a result of decreased chemotaxis (the movement of neutrophils toward the site of infection), thus delaying initial maternal responses to infection.

Older adults

The number of lymph nodes may diminish and size may decrease with advanced age, and some of the lymphoid elements are lost. The nodes of older adults are more likely to be fibrotic and fatty than those of the young, resulting in an impaired ability to resist infection.

enamel makes their teeth less susceptible to the organisms that cause caries.

Lip pits are sometimes found in the commissure of the lips. These slight dimplings are benign and sometimes occur along with preauricular pits.

Lip pits occur in approximately 20% of African-Americans, 12% of whites, and 7% of Asians

Whites have the smallest teeth, African-Americans have somewhat larger teeth, and Asians and Native Americans have the largest teeth.

Leukoedema, a greyish-white benign lesion of the buccal mucosa, occurs in 70% to 90% of African-Americans and 40% of whites.

Oral hyperpigmentation increases with age. 10% of whites and 50% to 90% of African-Americans experience it by the age of 50.

4. Identify the anatomic structures of the head and neck; describe their functions and methods for evaluating these functions.

Structures of the neck (2-1)

Anterior and posterior triangles of the neck (2-2)

Head and neck lymph nodes (2-3)

Lymph nodes related to the tongue (2-4)

Lymph nodes related to the ear (2-5)

Salivary glands (2-6)

5. Describe and demonstrate testing of cranial nerves involving the face and neck.

CN V: Trigeminal nerve—motor (2-12)

CN V: Trigeminal nerve—sensory (2-11)

CN VII: Facial nerve—motor (2-10)

CN XI: Spinal accessory nerve—motor, sternocleidomastoid muscle (2-14)

CN XI: Spinal accessory nerve—motor, trapezium muscle (2-13)

6. Describe and demonstrate other tests involving inspection and palpation of the head and neck.

Temporomandibular joint, strength of masseter muscle (2-15)

Palpation of carotid artery (2-16)

Auscultation of carotid artery (2-17)

Jugular venous distension (2-18)

Inspection of lymph nodes and salivary glands (2-19)

Inspection of the thyroid gland (2-20)

7. Describe facial features of clients that may suggest certain medical conditions.

2-21

2-22

3. Identify common variations in the head and neck related to ethnicity.

Permanent teeth appear earlier in females than males, earlier in African-Americans than whites.

Bifid uvula occurs in 18% of some Native American groups and 10% of Asians. This condition is rare in African-Americans and whites.

Torus palatinus, a bony ridge along the middle of the hard palate, is more common in Native Americans (55%).

African-Americans have less tooth decay than whites because the harder and denser tooth

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2-23

2-24

- 8. Describe and demonstrate techniques for inspection and palpation of the thyroid gland.**

Anterior palpation of thyroid gland (2-28)

Posterior palpation of the thyroid gland (2-20)

- 9. Explain the functions of the lymphatic system. Describe the location of the salivary glands and the lymph nodes of the head and neck that are accessible for palpation. Describe and demonstrate the technique for assessing lymph nodes of the head and neck.**

Occipital and postauricular (2-37)

Preauricular nodes, tonsillar nodes, and parotid glands (2-38)

Submaxillary nodes and submandibular salivary glands (2-39)

Submental nodes (2-40)

Anterior and posterior cervical nodes (2-41)

Supraclavicular nodes (2-42)

Infraclavicular nodes (2-43)

INSTRUCTOR'S NOTES

Overview

This chapter covers four subsections: (1) head and neck, (2) lymphatics, (3) nose and sinuses, and (4) lips and oropharynx. These are grouped together because a symptom or problem in one of these body systems commonly affects the other body systems. Examination of these body systems provides information about the client's general health and the presence of any local disease.

This chapter will cover anatomy, normal findings during examination, variations of normal findings, and pathology. The names of abnormal conditions are given in the CD-ROM, but more detail is given in the instructor's notes that can be shared with students. Examples of many variations of normal findings are provided because these are easily mistaken for abnormal conditions. A brief overview of examination techniques is provided.

Exercises requiring documentation of assessment of normal and abnormal findings are provided with additional information to help students begin to formulate a differential diagnosis.

Annotated Student Learning Objectives

After reviewing the CD-ROM, their class texts, and their lecture notes, students should be able to:

1. **Identify appropriate questions to ask when obtaining a health history regarding the head and neck, including health promotion issues. List specific information to obtain when abnormalities are identified in order to facilitate development of the differential diagnosis.** (See the student study outline.)
2. **Identify common differences in the head and neck across the life span.** (See the student study outline.)
3. **Identify common variations in the head and neck related to ethnicity.** (See the student study outline.)
4. **Identify the anatomic structures of the head and neck; describe their functions and methods for evaluating these functions.** (See the student study outline.)
5. **Describe and demonstrate testing of cranial nerves involving the face and neck.** (See the student study outline.)
6. **Describe and demonstrate other tests involving inspection and palpation of the head and neck.** (See the student study outline.)
7. **Describe facial features of clients that may suggest certain medical conditions.**

Some facial appearances are pathognomonic, characteristic of a particular disease. Examples are the startled expression of hyperthyroidism, the moon face and plethoric complexion of Cushing's syndrome, and the immobilized face of a client with Parkinson's disease.

 - ◆ **Myxedema (2-21)**
Features include puffy face, yellowish skin, coarse hair, and little facial expression. Client is slow to respond to questions. Other symptoms that would support the diagnosis include fatigue, weight gain, cold intolerance, constipation, menstrual irregularities, peripheral edema, depression. Differential diagnosis to consider: Nephrotic syndrome would be accompanied by sudden weight gain and edema. Parkinson's disease would be associated with resting tremor, bradykinesia (abnormal slowness of movement), and festinating gait (an involuntary tendency to take short accelerating steps in walking).
 - ◆ **Graves' disease (2-22)**
Features include moist skin, fine hair, prominent eyes with lid retraction, and anxious expression. In order to document the exophthalmia, the description should include "sclera visible between the upper eye lids and the limbal margin." Injection of the sclera is usually present, as in this example. If there is doubt, the lid lag test should be performed. Ask the client to follow your finger upward and then follow your finger downward to see whether the lid "lags" behind, allowing visualization of the sclera. Exophthalmia in Graves' disease is usually bilateral. If only one eye is involved, another diagnosis would be more likely, such as a tumor.
 - ◆ **Angioedema (2-23)**
This is a generalized allergic reaction that consists of extravascular edema extending into the deep dermis and subcutaneous tissue. This client's entire body was covered with wheals. The differential diagnosis for facial edema would include hypothyroidism (with a gradual weight

gain, cold intolerance, constipation, fatigue) and nephrotic syndrome (preceded by a history of renal disease).

- ◆ **Acanthosis nigricans (2-24)**
Features include a hyperpigmented velvety textural change over the base of the neck and between skin folds such as the inguinal area and axillae. This condition is associated with endocrine disorders such as insulin resistance and diabetes mellitus. Looking at the facial expression, you may suspect hypothyroidism or other causes of decreased mental functioning. An older client who presents with this condition, especially in the absence of diabetes mellitus, should be evaluated for an internal malignancy.

8. Describe and demonstrate techniques for examination of the thyroid gland.

A goiter is an enlargement of the thyroid gland. Clients with goiter may be described as *euthyroid* (simple goiter), *hyperthyroid* (toxic nodular goiter or Graves' disease), or *hypothyroid* (nontoxic goiter or Hashimoto's thyroiditis). A careful thyroid examination, health history, and thyroid hormone tests can determine the cause of the goiter. A smooth symmetric gland, often with a bruit, and thyroid tests indicating hyperthyroidism is suggestive of Graves' disease. A nodular thyroid with laboratory evidence of hypothyroidism and positive antithyroid antibodies is consistent with Hashimoto's thyroiditis. A diffuse, smooth goiter with laboratory evidence of hypothyroidism but without thyroid antibodies may be indicative of iodine deficiency. The presence of a single thyroid nodule and a history of childhood or adolescent exposure to radiation requires evaluation to rule out a malignancy.

Examples of goiters

- ◆ Asian female: anterior inspection (2-30); lateral inspection (2-31); palpation with increased prominence of thyroid gland (2-32)
- ◆ Caucasian female: anterior inspection (2-33); lateral inspection (2-34)
- ◆ African-American female with multinodular goiter: Anterior inspection (2-35); Palpation (2-36)

9. Explain the functions of the lymphatic system. Describe the location of the salivary glands and the lymph nodes of the head and neck that are accessible for palpation. Describe and demonstrate the technique for assessing lymph nodes of the head and neck.

Lymphatic system

- ◆ The lymphatic system is an important part of the immune system, protecting the body from antigenic substances of invading organisms and removing damaged cells from the circulatory system.
- ◆ The lymphatic system consists of lymph fluid, collecting ducts, lymph nodes, the spleen, thymus, tonsils, adenoids, and small amounts of tissue in other locations, such as Peyer's patches in the intestinal wall.
- ◆ The lymphatic system is a complete circulatory system closely linked to the blood circulatory system.
- ◆ The fluid and proteins that comprise the lymphatic fluid move from the vascular system into the interstitial spaces. Here they are collected by microscopic lymphatic tubules that return the fluid to the cardiovascular system.
- ◆ Lymph nodes are clumps of lymphatic tissue occurring in groups along the lymph vessels. The lymphatic system does not have a pumping mechanism, and the movement is much slower than that of the blood circulatory system. Lymph nodes closer to center of the body are smaller; therefore, epitrochlear nodes are larger than axillary nodes. The number of lymph nodes varies in different people. Usually the smaller the nodes, the more numerous they are.
- ◆ Several mechanism promote movement of lymph fluid, including contraction of skeletal muscles and contraction of smooth muscles in the walls of the lymphatic vessels, lymph nodes, and collecting ducts.
- ◆ Lymph nodes in general are not normally palpable. A palpable lymph node is an indication to assess the lymph system and adjacent structures thoroughly to identify the etiology. Lymph nodes may be deep or superficial and are perceived most effectively by palpation with the finger tips using a circular motion with a light touch followed by a firmer touch. The superficial lymph nodes are accessible to inspection and palpation and provide some of the earliest indications of infection or malignancy.
- ◆ The cause of lymphadenopathy is often obvious; for example, a child who presents with a sore throat, tender cervical nodes, and a positive rapid

strep test or client who presents with an infection of the hand and axillary adenopathy.

- ◆ Localized adenopathy should prompt a search for an adjacent precipitating lesion and an examination of other nodal areas to rule out generalized adenopathy.
- ◆ Adenopathy refers to nodes that are abnormal in either size, consistency, or number. There are different classification systems of lymphadenopathy, but a useful system is to classify lymphadenopathy as *generalized* if lymph nodes are enlarged in two or more noncontiguous areas or *localized* if only one area is involved.

Major lymph nodes and their drainage pathways

- ◆ Preauricular nodes located in front of the tragus of the ear drain the forehead or upper facial structures, scalp, external auditory canal, and lateral portion of eyelids.
- ◆ Postauricular nodes located behind the ear on the mastoid process drain the parietal area of the scalp and the external auditory canal.
- ◆ Suboccipital nodes located below the occipital protuberances drain the parietal area of the scalp.
- ◆ Submaxillary nodes located under the mandible between the tip and angle drain the mucosa of mouth and lips, tongue, submaxillary glands, and conjunctiva.
- ◆ Submental nodes located under the chin or tip of the mandible drain the tongue, floor of the mouth, and mucosa of the mouth and lips.
- ◆ Tonsillar nodes (jugular) are located anterior to the sternocleidomastoid at the angle of the mandible and drain the tonsils, floor of mouth, posterior palate, and thyroid.
- ◆ Anterior superficial cervical nodes located anterior to and over the sternocleidomastoid drain the ear and the skin of the neck.
- ◆ Posterior superficial cervical nodes located anterior to the trapezius drain the thyroid, posterior scalp, and posterior skin of the neck.
- ◆ Deep cervical nodes located under the sternocleidomastoid drain the thyroid, larynx, trachea, upper part of the oesophagus, and the ear.
- ◆ Supraclavicular nodes are located deep in the angle made by the clavicle and sternocleidomastoid muscle. Enlarged nodes in these areas may indicate metastatic disease: right from the mediastinum, lungs, esophagus; left from the thorax or abdomen via the thoracic duct.
- ◆ Epitrochlear nodes located above and posterior to the medial condyle of the humerus drain the ulnar surface of the forearm, the little and ring fingers, and the medial surface of the middle finger.
- ◆ Axillary nodes located in axilla near the axillary vein drain the upper extremity deltoid and the

anterior wall of the chest.

- ◆ Lymphatic drainage of the breast is via a complex network of lymph vessels and lymph nodes. The majority of lymph fluid drains to the axillary nodes. The axillary nodes are fairly superficial and therefore accessible and relatively easy to palpate. Five groups of nodes are located in the axillary fossa.
 - The central axillary
 - The lateral axillary
 - The posterior axillary
 - The anterior axillary
 - The apical axillary
- ◆ The central axillary nodes receive lymph from the other three nodal groups. The lymph is then channeled from the central axillary nodes to the infraclavicular and supraclavicular nodes.
- ◆ Inguinal nodes located in the inguinal area drain the leg, foot, abdominal wall inferior to the umbilicus, external genital organs, and buttocks.
- ◆ Popliteal nodes located behind the knee drain the heel and outer aspect of the foot.

Pathological conditions of the scalp

The lesion morphology is basically the same on the scalp as other parts of the body.

- ◆ Psoriasis (2-52)
This client has had psoriasis for several years and has recently developed involvement of the neck and scalp. Scalp psoriasis usually results in reddish lesions along the hairline. There may be extensive scaling, and it may be indistinguishable from seborrheic dermatitis.
- ◆ Herpes zoster of the scalp and neck (2-53)
Vesicles follow a skin dermatome on one side of the body.
- ◆ Benign soft pink nevus of the scalp (2-54)
Compare this single lesion with normal hair growth with a similar lesion on another female's scalp (2-55). This is neurofibromatosis, a hereditary condition that could be identified by family history. There are two large lesions and multiple small lesions. An assessment of the rest of the body would identify similar lesions over her body and several café au lait macules.
- ◆ Basal cell carcinoma of scalp (2-56)
This lesion has an elevated, smooth border with a central umbilication. History: client has blond hair and blue eyes and has had many years of extensive sun exposure. The lesion began as a papule, then grew larger. This person is at risk for skin cancer, which includes malignant lesions of the scalp. The lesion does not have the classic features of basal cell carcinoma, which include a pearly border with telangiectasia.

- scopes without the ear speculum can be used)
- g. Tongue blades, gloves, gauze, culture swabs, and culture media for mouth assessment
 - h. Evaluation of ability to recognize tastes and odors is not routinely tested, but if these tests will be performed, vials containing solutions for tasting and vials containing odorous materials will be needed.

Teaching Strategies

In-class activities:

- See the preface for general strategies suggested for each section.
- After demonstrating the assessment of the head and neck and lymphatics, ask students to let you do a quick assessment of each student's oropharynx and share your findings with classmates. If the group has 8 to 12 students, common variations of normal can usually be found, such as torus palatinus, geographic tongue, Fordyce spots. When students have the opportunity to visualize the actual variations during class, learning is enhanced.

Equipment Required

Equipment required for assessment of the head and neck includes the following:

- a. Tape measure for measuring head circumference in infants and limb circumference with edema
- b. Plastic, flexible cm ruler for measuring lesion or lymph node size
- c. Otoscope or other light source for inspection of the nose and mouth
- d. Nasal speculum for visualization of nasal cavity
- e. Stethoscope for auscultation of bruit—carotid artery, temporal artery, and thyroid if enlarged
- f. Transilluminator for sinuses (certain types of oto-

Class assignments:

- Divide students into four groups according to their interests in client age groups: infants and children, adolescents, pregnant women, and older adults. Assign students to do a complete head and neck history and physical assessment on an individual from their chosen age group. The client can be a friend, relative, or a client from the student's clinical agency. Remind students to use the Physical Assessment Lab Guide for the head and neck to assist in their assessment, and ask them to record the subjective and objective findings using correct terminology.
 - The assessment should focus on identification of normal variations across the life span. (Example: pregnant females will probably have a slightly enlarged thyroid gland and complain about nasal stuffiness.)

- During the next class lead a discussion on the history and physical assessment findings from each of the specific age groups.

Evaluation Questions

The following questions may be used for evaluating students' understanding of the assessment of the head and neck.

1. Show the following images of facial features that may suggest certain medical conditions.
 - a. Myxedema (2-21)
 - b. Graves' disease (2-22)
 - c. Angioedema (2-23)
 - d. Acanthosis nigricans (2-24)

For each image, ask students to document the following:

- ◆ Objective data: physical appearance (see annotated student learning objectives, pp. 31–32)
- ◆ Assessment/differential diagnosis: What is the most likely diagnosis for the condition
- ◆ Subjective data: What history would support the diagnosis selected? (see annotated student learning objectives, pp. 31–32)

2. Show the following images of enlarged lymph glands and salivary glands, and ask students to answer the accompanying questions.
 - a. (2-44) Describe the location of the swelling, and name the structures that may be enlarged. (swelling anterior to the ear; preauricular node or parotid gland)
 - b. (2-45) What is the name of the lymph node in this location? What type of infection is commonly associated with lymphadenopathy in this area? (anterior cervical node; streptococcal pharyngitis)
 - c. (2-46) What is the name of the lymph node in this location? What type of infection is commonly associated with lymphadenopathy in this area? (posterior cervical; infectious mononucleosis)

PHYSICAL ASSESSMENT LAB GUIDE

(Assessment of the Head, Face, and Neck)

Student _____

Date _____

Subjective:

Objective:

Inspection and palpation of the head and face

- Skull for symmetry, position, tenderness
- Scalp for symmetry, lesions, scaling
- Temporomandibular joint for crepitus
- Masseter muscle for strength of contraction (CN V—motor)
- Temporal artery
- Face for symmetry, facial expression (CN VII—motor)
- Recognition of light touch (CN V—sensory)

Inspection and palpation of the neck

Inspection

- Lymph nodes
- Thyroid
- Range of motion of cervical spine

Palpation

- Lymph nodes—location, size, consistency, mobility, number, tenderness
 - Occipital
 - Posterior auricular
 - Preauricular
 - Tonsillar
 - Submandibular (submaxillary)
 - Submental
 - Anterior cervical chain
 - Posterior cervical chain
 - Supraclavicular
 - Infraclavicular
 - Salivary glands
 - Parotids
 - Submaxillary
 - Thyroid—isthmus, lobes, size, texture
 - Carotid arteries
 - Tracheal position
 - Strength of sternocleidomastoid muscle (CN XI—motor)
 - Strength of trapezius (CN XI—motor)
- #### Auscultation
- Carotid artery

Summary of Objective data:

PHYSICAL ASSESSMENT PRACTICUM

(Assessment of the Head, Face, and Neck)

Student _____ Date _____

Client age _____ Sex _____ Description _____

Inspection and palpation of the head and face

- Skull for symmetry, position, tenderness _____
- Scalp for lesions, scaling _____
- Temporomandibular joint for crepitus _____
- Masseter muscle for strength of contraction (CN V—motor) _____
- Face for symmetry, facial expression (CN VII—motor) _____
- Recognition of light touch (CN V—sensory) _____

Inspection and palpation of the neck

- Inspection
 - Lymph nodes _____
 - Thyroid _____
 - Range of motion of cervical spine _____
- Palpation
 - Lymph nodes—location, size, consistency, mobility, number, tenderness
 - Occipital _____
 - Posterior auricular _____
 - Preauricular _____
 - Tonsillar _____
 - Submandibular (submaxillary) _____
 - Submental _____
 - Anterior cervical chain _____
 - Posterior cervical chain _____
 - Supraclavicular _____
 - Infraclavicular _____
 - Salivary glands
 - Parotids _____
 - Submaxillary _____
 - Thyroid—isthmus, lobes, size, texture _____
 - Tracheal position _____
 - Strength of sternocleidomastoid muscle (CN XI—motor) _____
 - Strength of trapezius (CN XI—motor) _____
 - Carotid arteries _____

Total items Total points earned

Possible points for completion	26	_____
Technique	2	_____
Total	28	_____