وزارة التعليم العالي والبحث العلمي
الجامعة التقنية الجنوبية
المعهد التقني العمارة
قسم التمريض

الحقيبة التدريسية لمادة التقييم الصحي

HEALTH ASSESSMENT

المرحلة الأولى

مدرس المادة
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الفصل الدراسي الثاني

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Vocabulary Table for the Health Assessment Subject

Weeks	Theoretical Topics
2-1	Introduction and Overview to Health Assessment: - General Appearance Personal hygiene, Grooming, Dressing, Posture and gesture, Speech pattern, Orientation
4-3	Integumentary System (skin, hair, nails)
5	Head and neck
6	Respiratory assessment
7	Cardiovascular System
8	Peripheral Assessment
9	Abdominal Assessment
10-11	Neurological System
12-13	Musculoskeletal System
14	Reproductive System
15	laboratory Test

Objective of the Health Assessment Study

General objectives:

The student can be able to know the general information about Health Assessment.

The Study of the Health Assessment Subject for the Second Stage Aims to:

At the end of this course the students will be able to:

1- Describe the components of the heath history

2- Apply interviewing skills and techniques to conduct a successful interview.

3- Evaluate the persons' general health status.

4- Utilize various tools and techniques to measure and collect information (interview, observing, listening, physical examination, reviewing records and results of diagnostic test.

5- Explain the sequence of systematic approach of physical examination of body system.

6- Demonstrate the basic techniques of physical examination.

7- Describe the physical examination techniques of inspection, palpation, percussion, and auscultation

8- Identify common instruments used during physical examination

Target group: Second-Stage students in the Nursing Department

Educational technologies used:

1. board and pens
2. Interactive whiteboard
3. Data show
4. Laptop

First and second week

Learning Objective

The student should be able to identify

1.To Identify the Health Assessment

2. To Determine the Purposes of the Health Assessment

3. To Determine the objectives of the Health Assessment

4. To Describe the Components of the Heath History

5. To Determine the Types and Data of Assessment

6. To Describe the Guideline for Conducting Health Assessment

Lecture Duration: **2 hours of theory + 4 hours of practice**

Activities used

1. Classroom Interactive Explanation

2. Brainstorming Techniques Questions

3. Group Assignment

Evaluation Methods:

1. Immediate feedback

2. Involving students in self-assessment (correcting their own mistakes).

3. Solving the quiz questions as a class activity at the end of the lecture.

Introduction Health Assessment

Health Assessment

Is the comprehensive collection of information about a patient's physiological, psychological, sociological, and spiritual status in order to identify actual and potential health problems.

Assessment is the first and foundational step of the nursing process

(Assessment, diagnosis, planning, implementation, and evaluation).

The purposes of Health Assessment

1. To provides a systematic and objective method of evaluating the patients' health status.

2. Detailed nursing history, the physical assessment assists data analysis.

3. All of this information used together strengthens in intellectual basis for nursing diagnosis and making decisions related to patient care.

4. Enhance the nurse-patient relationship, to identify and manage of patient problems (actual and potential).

5. Evaluate the effectiveness of nursing care.

Some specific goals of a health assessment

1. Evaluating the urgency of the patients' problems.

2. Identify the health problem.

3. Determine the extent of the problem.

4. Identify the need for additional data.

5. Evaluating the potential problems patients.

Components of Medical History

1- Biographical Data

a. Date and Time.

b. Patient's name, address, telephone number.

c. Name, a, address and telephone number of person to contact in case of emergency.

d. Gender, Age, Birth date, birthplace and marital status.

e. Occupation and level of education.

2. Chief Complaint

a. Determine the primary causes to health care.

b. Brief description about the current problem for patient.

c. Duration of the problem.

3. Present Medical History

a. It is the most important factor to determine diagnosis or patient's needs.

b. The time of the problem, symptoms and the current health status of patient.

c. inception, duration, sign and symptoms, intensive factors, relax factors, medication used.

4. Past Medical History

a. Detailed summary of the patient's past medical history.

b. Immunization status.

c. Medication and allergies to medication.

d. Childhood illness and chronic diseases.

e. Hospitalization, injuries- fractures, head injuries.

f. Surgical and diagnostic procedures.

g. Alcohol and smoking

5- Family History

a. Cancer
b. Diabetes
c. Mental Illness
d. Kidney Disease
e. Asthma
f. Hypertension
g. Epilepsy
h. Tuberculosis
i. Arthritis

Frequency of assessment

1. Persons under **(35)** years every **(3–5)** years.

2. Persons from **(35 – 45)** years every (**1 – 3)** years.

3. Persons from **(45-55)** years of age undergo a thorough health assessment every year.

4. Persons over **(55)** years may needs assessment every **6** months or less.

Types of Assessment

1. Complete Primary Assessment: It is intended to obtain a health history and a complete examination to create a database for identifying the problem, referral and future comparison upon admission.

2. Focus Assessment: To determine the patient's current health problem status, when assessing a patient's respiratory system, they may ask if the client is a smoker

3. Emergency Assessment: In emergency situations, quickly and efficiently look up a patient's vital signs, fluid chart, and medications.

4. Time lapse Assessment: After several months of primary assessment to compare the current status with baseline data.

Types of Data

1. Subjective data

*Symptoms that the patient described and feels

*Collect data from client, family, significant others, health care team members, and health records.

*Biographical, past history, present history, family history.

*Information related to life style and activities of daily living.

2. Objective data

Physical examination, nursing diagnosis, signs and lab test results.

Data Collection Technique

1. Take consent from the patient or patient's family if patient cannot give consent
2. Maintain Provide privacy and comfort for the patient
3. Greet the client and introduce yourself

Communication techniques

Therapeutic communication is an interaction that is helpful and healing for one or more of the participants; the client benefits from knowing that someone cares and understands, and the nurse derives satisfaction from knowing that he or she has been helpful.

Open-ended questions

*What causes admission you to the hospital today?

*What is the cause of your cough and chest pain?

*Open-ended ones give the patient a chance to provide descriptive answers and you should use it as much as possible.

*Evaluate his alertness and mental abilities when answering.

* You may need to gently refocus the patient's attention.

Closed questions

If you need information quickly, use closed questions such as

Is your chest pain gone away?

Because they require only one-or two-word answers.

Examples include:

What do you have for breakfast?

When did the pain start?

Are you sleeping well?

Guideline in conducting health assessment

A. Preparing the patient

To ensure an accurate assessment and physical examination. The patient must be properly prepared physically and psychologically. To prepare the patient, the nurse:

1. Prepare for patient's physical comfort, by allowing the opportunity to empty the bowel and bladder.
2. Keep privacy while the patient changes.
3. Help the patient assume proper positions during examination so that body parts are accessible and the patient stay comfortable.
4. Thoroughly explain what will be done, what the patient should expect to feel, and how the patient can cooperate.
5. Encourage patient to ask questions and mention discomfort felt during examination.
6. Conduct the examination systematically from head to foot so as not to miss observing any system or body part.
7. Because the body is bilaterally symmetrical, for the most part, compare findings on one side with those on the other.

B. Preparing equipment:

The nurse uses a variety of equipment throughout the assessment process.

C. Preparing the environment:

The examination room should have the following features.

1. privacy for the patient.
2. curtains or dividers to enclose the patient's bed.
3. a warm comfortable temperature.
4. proper examination clothing for the patient.
5. adequate lighting.
6. control of outside noises.
7. precautions to prevent interruptions by visitors or other health care personnel.
8. a bed or table set at examiner's waist level.

2: Physical Assessment & Techniques of Examination:

The nurse depends on his/her own senses and uses them in five examination techniques that enable nurse to collect a broad range of physical data about the patients. These are:

1. Inspection (Using Sight)
2. Palpation (Using touch)
3. Percussion (Using hearing and touch).
4. Auscultation (Using hearing)

Third and Fourth Week

Learning Objective

The student should be able to identify

1. To Describe the Assessment of the Integumentary system
2. To Identify the Layers of the skin
3. To Determine the Skin Function
4. To Describe the Epidermal appendages of Integumentary system
5. To Describe of the Type of Lesion in the integumentary system

Lecture Duration: **2 hours of theory + 4 hours of practice**

Activities used

1. Classroom Interactive Explanation
2. Brainstorming Techniques Questions
3. Group Assignment

Evaluation Methods:

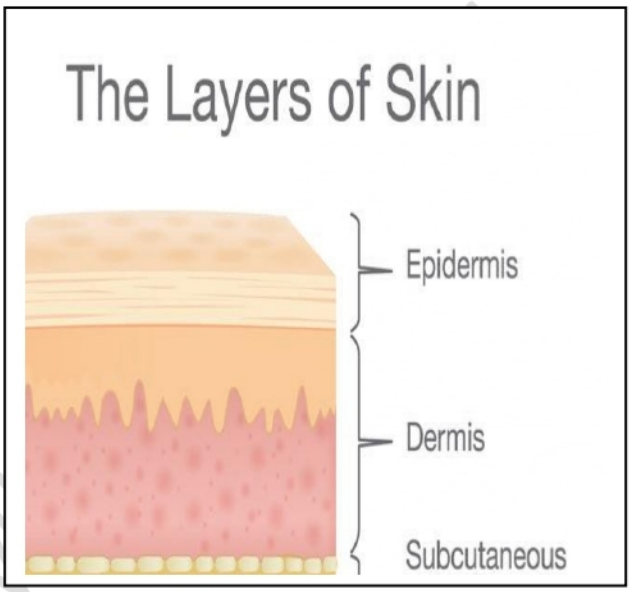
1. Immediate feedback
2. Involving students in self-assessment (correcting their own mistakes).
3. Solving the quiz questions as a class activity at the end of the lecture.

Assessment of the Integumentary system

The assessment of the integumentary system, which includes the skin, hair and nails is an important element of the nurse's assessment of the patient's health status.

Layers of the skin

1. Epidermis, the thin avascular superficial layer of the skin, outer dead, portion that serves as a protective



Layers measure 0.05 to 0.1 mm in thickness.

is nourished by blood vessels in the dermis.

regenerates with new cells every 28 days.

Two major types of epidermal cells

Melanocytes (5%) and Keratinocytes (90%).

2. Dermis is the connective tissue below the epidermis. Dermal thickness varies from 1 to 4 mm. The dermis is very vascular.

3. Subcutaneous Tissue (Is not part of the skin**)**

The subcutaneous tissue contains loose connective tissue and fat cells that provide insulation.

The anatomic distribution of subcutaneous tissue varies according to gender, heredity, age, and nutritional status.

This layer also stores lipids, regulates temperature, and provides shock absorption

Skin Function

1. Protective function (Microorganism, Heat, Coldness, Injury)
2. Identification color
3. Sensory receptor, Thermoregulation
4. Promoting wound repair through the normal process of cell replacement.
5. Balance and prevents the loss excessive water, fat, & Producer Vitamin D
6. Expression of emotion
7. Facilitate Joint movement
8. Excretory function

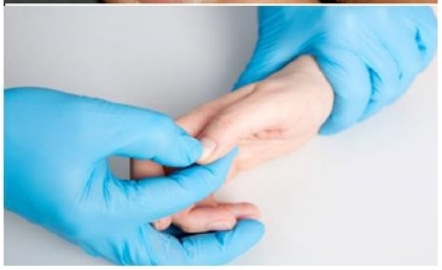
Epidermal appendages

Hair

1. Decreased melanin & melanocytes	Gray or white hair
2. Decreased oil	Dry, coarse hair. Scaly scalp.
3. Decreased density of hair	Thinning and loss of hair. Loss of hair in outer half or outer third of eyebrow and back of legs.
4. Cumulative androgen effect; decreasing estrogen levels	Facial hirsuti baldness.

Nails

1. Decreased peripheral blood supply	Thick, brittle nails with diminished growth.
2. Increased keratin	Longitudinal ridging
3. Decreased circulation	Prolonged return of blood to nails on blanching.



Assessment

1. Inspection:

a) Inspect scalp for lesions; hair and scalp
b) Inspect skin for lesions, bruising, and rashes.
c) Inspect for pressure areas.
d) Inspect nails for clubbing fingers, consistency, color, and capillary refill.
e) Check skin color such as cyanosis, jaundice,
f) Skin conditions temperature, texture, and dehydration
g) Redness of the skin at pressure areas
h) Edema usually indicates cardiac or kidney failure.

2. Palpation:

a) Palpate skin for temperature, moisture, and texture.
b) Check for skin turgor.
c) Palpate skin for edema.
d) Use the fingers to pinch an area of the skin and release it. It should instantly return to place.
e) Report and document assessment findings and related health problems.
f) Accurate and timely documentation and reporting promote patient safety.

Type of Lesion

1.Abscess

a localized collection of pus caused by infection

2. Crust

is resulted from the dried secretions over the skin

3. Cyst

a closed sac containing liquid or semisolid material

4. **Fissure**
linear crack in the skin surface


5. Pustule vesicle
bullae that contains pus


6. Scleroderma
tanning/yellowing of skin, associated with loss of elasticity.


7. Lupus
Butterfly rash on face.


8. Chloasma:
Mask of pregnancy" (on face).


9. Sprue:
Tan/brown patches of any area.


10. Ichthyosis:
With coarse scaliness.


Fifth Week

Learning Objective

The student should be able to identify

1.To Identify the Head and Neck Assessment

2. What are the Focused Health History for the Head, Face, and Neck

3. To Describe the Assessment of the Eye, Nose, Ear, Neck and Lymph Nodes

Lecture Duration: **2 hours of theory + 4 hours of practice**

Activities used

1. Classroom Interactive Explanation

2. Brainstorming Techniques Questions

3. Group Assignment

Evaluation Methods:

1. Immediate feedback

2. Involving students in self-assessment (correcting their own mistakes).

3. Solving the quiz questions as a class activity at the end of the lecture.

Head and Neck Assessment

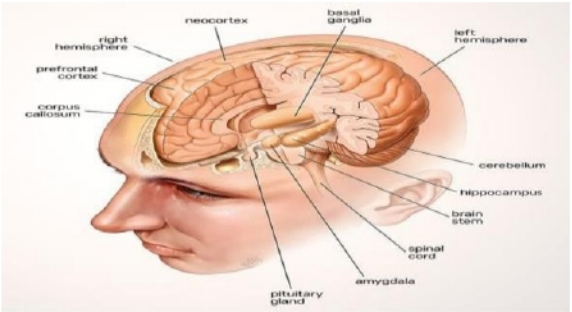
The head and neck regions contain multiple structures that make examination of these areas complex.

The skull encloses the brain; facial structures include the **eyes**, ears, nose, and mouth.

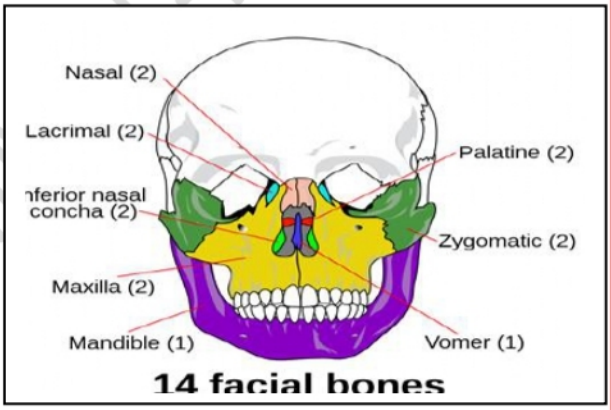
Structures of the neck include the upper portion of the **spine**, the **esophagus**, the **trachea**, the **thyroid gland**, **arteries**, **veins**, and **lymph nodes**.

1.**Skull** Is a bony structure that protects the brain and upper spinal cord.

The special senses of vision, hearing, smell, and taste are also contained within the brain.



2. Face consists of 14 bones that protect facial structures, including the eyes, ears, nose, and mouth; these structures are generally symmetric. Bones are immobile and are fused at sutures, with the exception of the mandible movement of the jaw up, down, in, out, and from side to side.



The head, face, and neck include many structures with highly varied functions. Disruption or disease of several other systems can affect the organs of the head, face and neck.

This is actually a complex set of varied organs, combined during assessment because of their proximity to one another and the integration among the components of the system.

Focused Health History for the Head, Face, and Neck

If a detailed history is either not feasible or inappropriate, be sure to ask the following basic questions.

1. Do you have problems or complaints related to your head, face, nose, mouth, throat, or neck? Some examples are head, pain, nasal congestion, nosebleeds, nasal discharge, mouth sores or pain, sore throat, postnasal drip, difficulty swallowing, and neck pain.

2. Do you have allergies to any medications, foods, or environmental factors?

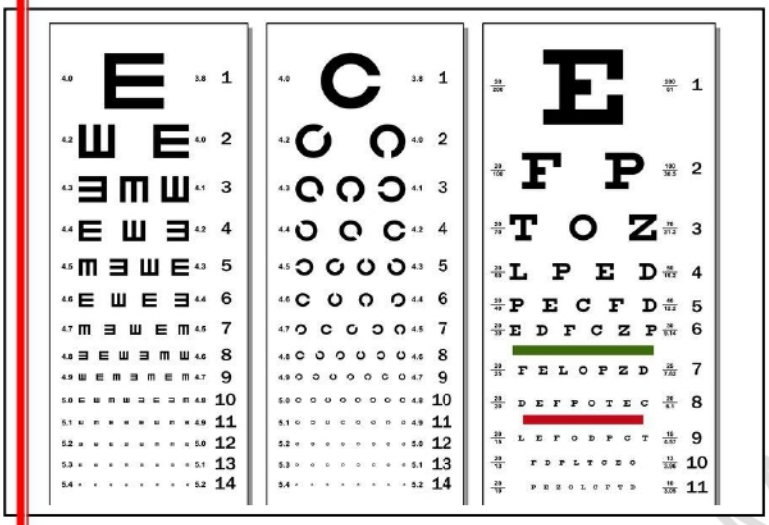
3. What, if any, health problems do you have?

4. What, if any, medications or prescribed medications do you take?

5. Is there anything specific that you think I should know related to your general health or this specific complaint.

1. Assessment of the Eye

Eye chart (Snellen chart)



Cover card.

Ophthalmoscope

Penlight

Ask your client about:

1. History of previous eye surgery, trauma, use of corrective glasses or contact lenses, blurred vision, Diplopia, strabismus.

2. Recent changes in vision. Date of previous vision test.

3. Allergies, eye redness, frequent watering discharge

Assess:

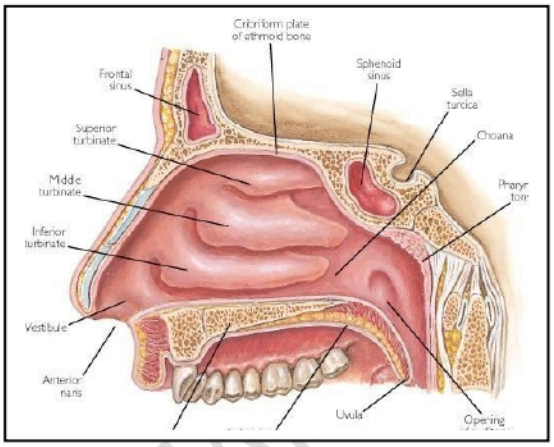
1. External eye structures: Eyebrows, Upper and lower eyelids, Eyelashes, Lacrimal glands

Conjunctivae: Contains blood vessels, nerves, hair follicles, and sebaceous glands.

2. Internal eye structures: Iris, retina, and macula.

Consider the following Factors:

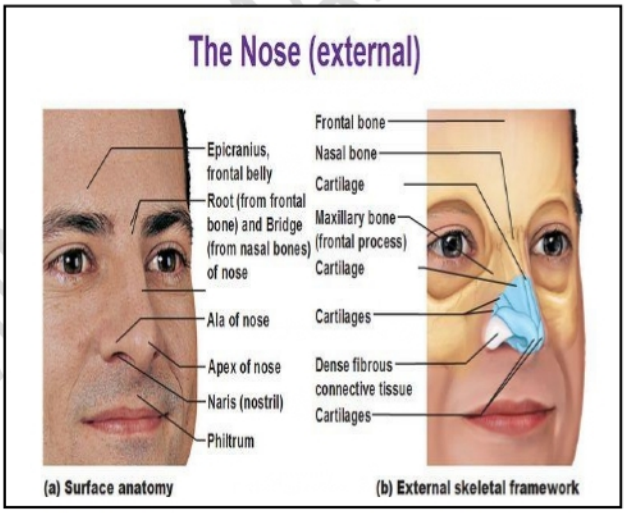
Age use of corrective lens, artificial eye, allergies, pain, visual disturbances, and health related factors such increase Blood Pressure, or Diabetes mellitus



2. Assessment of the Nose

Functions of the nose

1. Identify odors
2. Air passageway (obligate in newborns)
3. "Air conditioning"
4. Humidify
5. Warms/cools air
6. Cleans and filters air of dust & most bacteria
7. Voice resonance



Inspect and Palpate

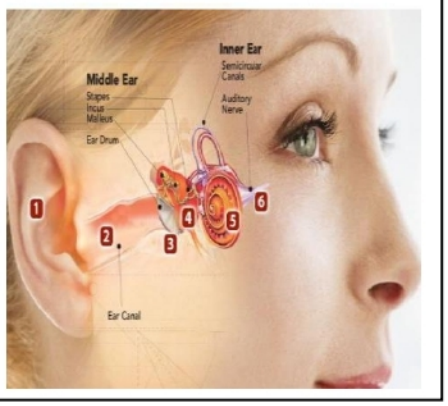
External Nose

1. Assess symmetry, nostril, and skin lesion.

2.Patency: each time test one side Inspect and observe symmetry, inflammation, & deformity.

Note: For client with NGT nurse routinely checks for local breakdown of skin "Excoriation" of te naris characterized by redness and sloughinhg of the skin.

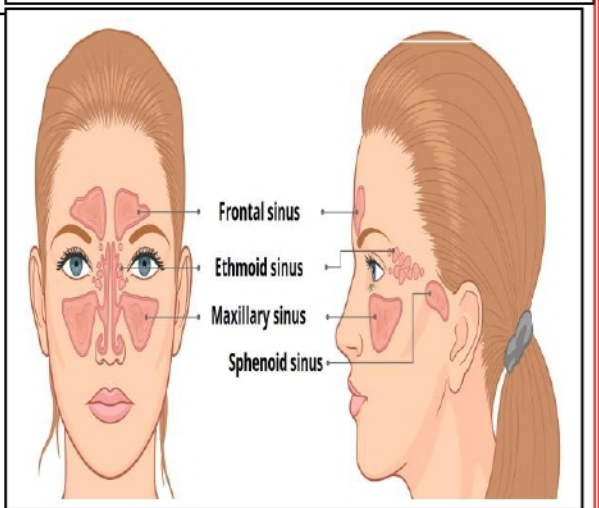
3. Ear Assessment: Ask about- History of ear surgery, trauma, frequent infection, ear pain, drainage, hearing loss, tinnitus, vertigo, ototoxic medications, last hearing examination Assess client in sitting position & inspects the auricle's placement, size, symmetry, and color. Color of ears must be the same as of the face.



Redness: sign of inflammation or fever. Pallor: indicate frostbite.
Inspection of ear canal for size and discharge.
Assessment of cerumen if it is yellow or green may indicate infection.
Assessment of hearing acuity: done simply by identification of voice tones, with the client repeating testing words spoken by the nurse
Note: deeper structure and middle ear can be observed only by Otoscope.

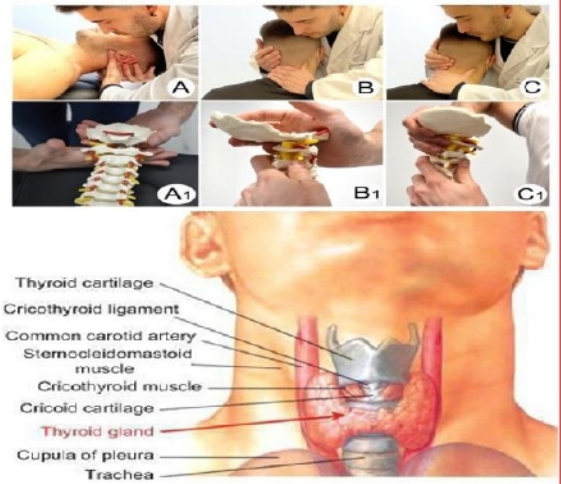
The Ear Examination
Using the Otoscope
Choose the speculum
Hold the Otoscope upside down
The External Canal:
Redness / swelling / lesion / foreign body / discharge Tympanic Membrane
Color / character / perforation, shiny, translucent pearlgray color, Cone-shaped light reflex

4. Assessment of the sinuses:
Palpation for the sinus areas
Frontal sinus below the eyebrow Maxillary sinus below cheekbones
Transillumination sinusitis:
1).frontal sinus under the superior orbital
2).maxillary sinus inside the mouth on the hard palate Normal light up symmetrically Trans illumination-Frontal and Maxillary Sinuses

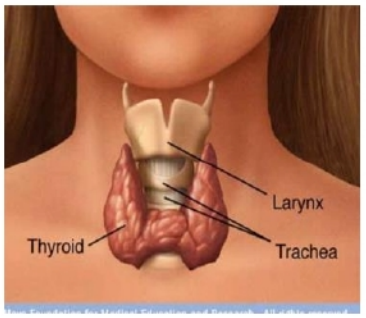


Assessment of the sinuses Frontal and maxillary sinuses are examined for pain and edema. - palpate sinuses (both frontal and maxillary for tenderness, which verbalized by client during exam. - Percuss sinuses for resonance, which is normally hollow tone, and noting abnormality e.g. flat, dull tone elicited or expresses pain on percussion.

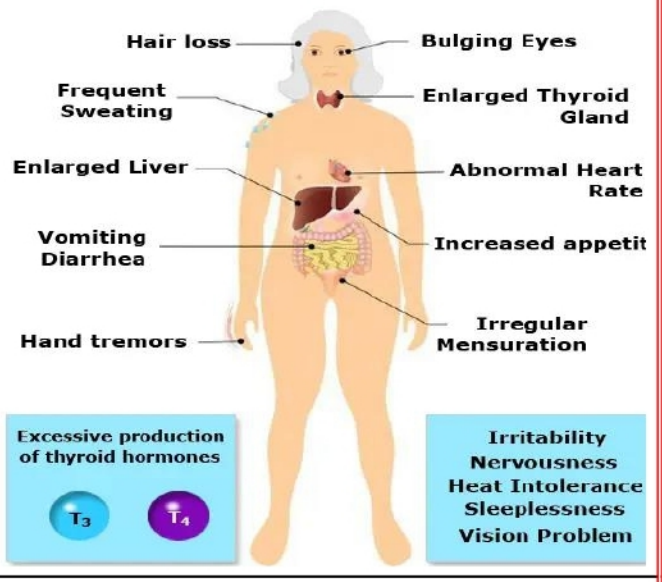
Assessment of Neck Client in sitting position: assessment done by inspection and palpation. Assess neck muscles, trachea, thyroid gland, carotid arteries and jugular veins, cervical lymph nodes and cervical vertebrae. Assess neck size and position of trachea and thyroid Assess range of motion by asking the client to tilt the head backward and side-to-side



Assess lymph nodes and venous distention. Neck should be symmetrical with full range of motion and no neck vein distention Inspect and palpate cervical vertebrae on the posterior aspects of the neck for symmetry, tenderness, masses or swelling. Thyroid gland is assessed by palpation , observation and auscultation. Normal thyroid gland not palpable. - Palpation – for gland itself. - If enlargement of thyroid gland is detected, auscultated for a bruit vibrations& sound of blood flow through arteries in enlarged gland, heard with the bell of stethoscope History of radiation for to head or neck.



Thyroid dysfunction Changes in sleep pattern and mood: fatigue, drowsiness, insomnia, irritability, nervousness. Dyspnea on exertion, tachycardia & Altered sensitivity to heat or cold. Changes in appetite and Changes in menstruation. Hoarseness, difficulty swallowing and Hair loss brittleness of nails.



Sixth Week

Learning Objective

The student should be able to identify

1.To Identify the Respiratory System Assessment

2. What are the Technique for Respiratory Examination

3. To Describe the Primary Respiratory Survey Assessment

4. To Explain the Assessment of the Breathing Pattern

Lecture Duration: 2 hours of theory + 4 hours of practice

Activities used

1. Classroom Interactive Explanation

2. Brainstorming Techniques Questions

3. Group Assignment

Evaluation Methods:

1. Immediate feedback

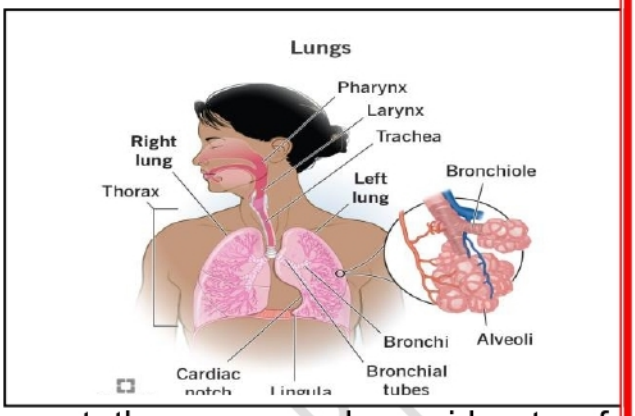
2. Involving students in self-assessment (correcting their own mistakes).

3. Solving the quiz questions as a class activity at the end of the lecture.

Respiratory System Assessment

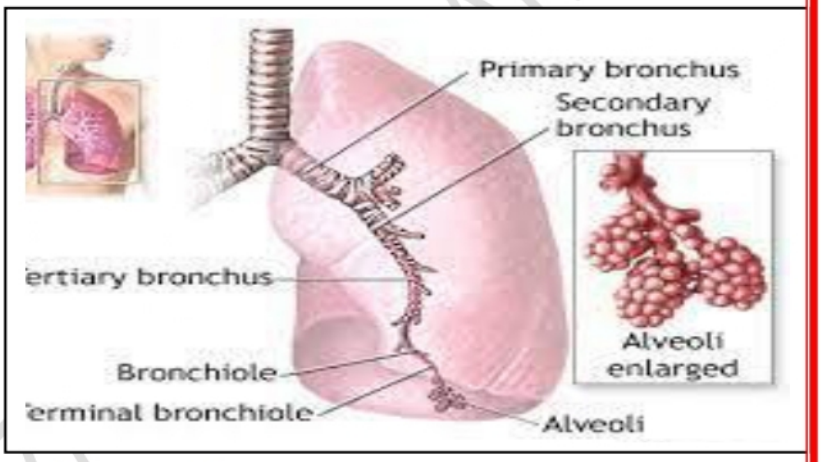
Respiratory tract extends from Mouth-Nose-Pharynx - Larynx -Trachea - Lungs

Technique for Respiratory Exam



Before a technique the assessment:

1. Quiet environment if possible
2. Suitable position (patient sitting for posterior Thorax exam, supine for anterior thorax exam)
3. Expose skin for lungs auscultation
4. Patient comfort, using hands for diaphragm or stethoscope, and considerate of women (drape sheet to cover chest)



Technique by

1. Inspection
2. Palpation
3. Percussion
4. Auscultation

Primary Respiratory Survey

A. Observe the patient or client breathing pattern

1. Rate (normal or increased/decreased)
2. Depth (shallow or deep)
3. Effort (any sign of accessory muscle use, inspect neck)

B. Assess the client's skin color e.g. cyanosis

Normal Respiratory Rates According to scientific sources

No	Stage	Age	Rates
1	Infant	birth -1 years	30-60
2	Toddler	1-3 years	24-40
3	Preschooler	3-5 years	22-34
4	School-age child	6-12 years	18-30
5	Adolescent	13-19 years	12-22
6	Adult	20 and over	14-24

Assessment of respiratory system

1. Inspection for Measurement and assessment of respiration patterns.

2. Assess the skin and overall symmetry and integrity of the thorax.

3. Assess thoracic configuration.

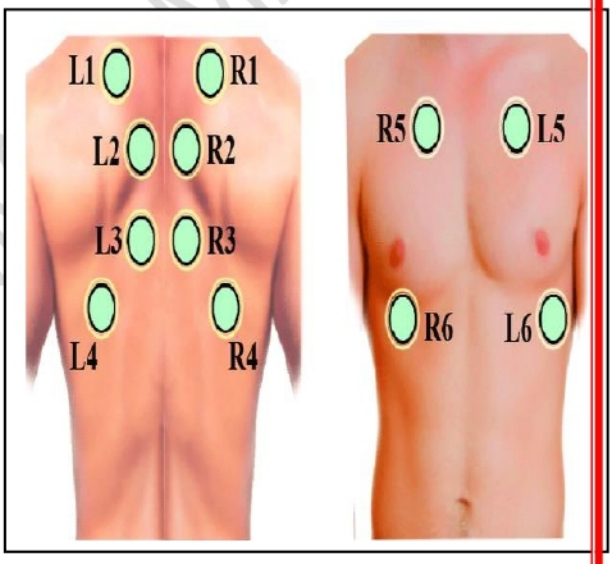
4. Client must be uncovered to the waist, in sitting position without support.

*** Observation skin may give you knowledge about nutritional status of client.**

1. Anterior- posterior diameter of thorax in normal person less than the transverse diameter = (1 – 2).

2. Assess for abnormality of configuration, e.g. pigeon chest, funnel chest, spinal deformities.

Assess pattern of respiration:



1.Normally

men / children – breathe diaphragmatically and

Women breathe thoracic ally or coastally.

2. Tachypnea

respiratory rate over than 24/m.

3. Bradypnea

respiratory rate less than 10/m.

Palpation

palpate areas of chest especially areas of abnormalities.

If clients complain

all chest areas must palpated carefully for tenderness, bolges, or al movements

Assess thoracic expansion

1.Anterior

put your hands over anterior-lateral chest and thumbs extended along costal margin pointing to xiphoid process.

2. Posterior

thumbs placed at level of 10th rib with palms placed on posterior-lateral chest.

Assessment of respiratory system

1. Coughing (productive, non-productive)

2. Sputum (type & amount).

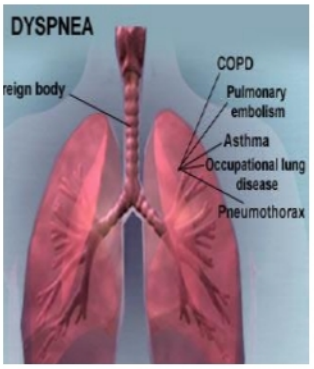
3. Allergies, dyspnea or (Shortness of Breath) SOB (at rest or on exertion).

4. Chest pain, history of asthma bronchitis, emphysema, tuberculosis.

5. Cyanosis, pallor.

6. Exposure to environmental inhalants (chemicals, fumes).

7. History of smoking (amount and length of time)



Seventh Week

Learning Objective

The student should be able to identify

1. To Identify the Assessment of Cardiovascular System
2. To Explain the layers of the heart wall
3. To Explain and Describe the Valves Heart
4. What are the Technique for Respiratory Examination
5. To Describe the Function of Heart and Blood Vessels
6. To Identify the Main symptoms and signs of heart diseases
7. To Identify the Immediate investigations vital observations for Cardiovascular diseases

Lecture Duration: **2 hours of theory + 4 hours of practice**

Activities used

1. Classroom Interactive Explanation
2. Brainstorming Techniques Questions
3. Group Assignment

Evaluation Methods:

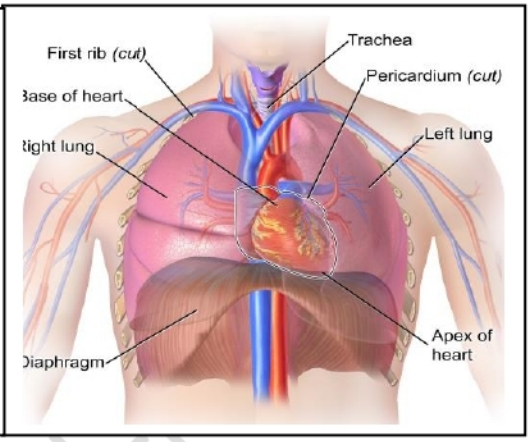
1. Immediate feedback
2. Involving students in self-assessment (correcting their own mistakes).
3. Solving the quiz questions as a class activity at the end of the lecture.

Assessment of Cardiovascular System

The human heart is one of the most important organs responsible for sustaining life. It is a muscular organ with four chambers. The human heart functions throughout a person's lifespan and is one of the most robust and hardest working muscles in the human body.

Position of Heart in Human Body

The human heart is located between the lungs in the thoracic cavity, slightly towards the left of the sternum Cardiovascular disease is among important and dangerous diseases that lead to death in a large rate for males and females in all states.

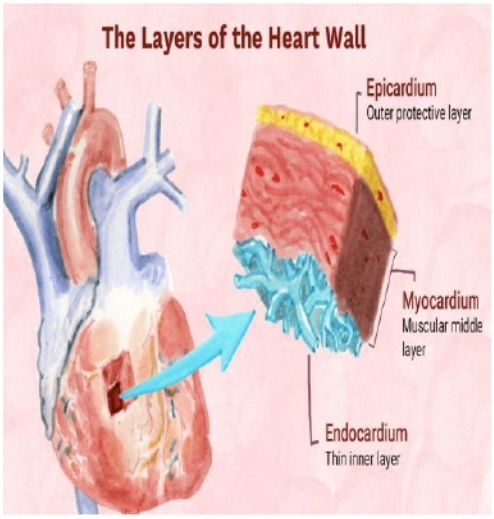


The heart wall is made up of 3 layers, namely

1.Epicardium: This is the outermost layer of the heart. It is composed of a thin layer of membrane that protects and lubricates the outer section.

2. Myocardium: This is a layer of muscle tissue that constitutes the middle layer wall of the heart. It is responsible for the heart is "pumping" action.

3. Endocardium: The innermost layer that lines the inner heart chambers and covers the heart valves. Avoiding the formation of blood clots.



There are four valves in the heart

1. Aortic Valve: between the

Left Ventricle and the Aorta

2. Mitral Valve: between the

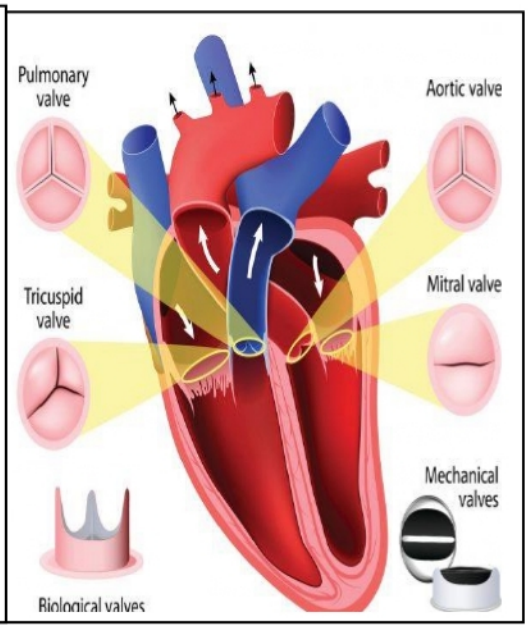
Left Atrium and the left Ventricle

3. Pulmonary valve: between the

Right Ventricle and the Pulmonary trunk

4. Tricuspid valve: between the

Right Atrium and the right Ventricle

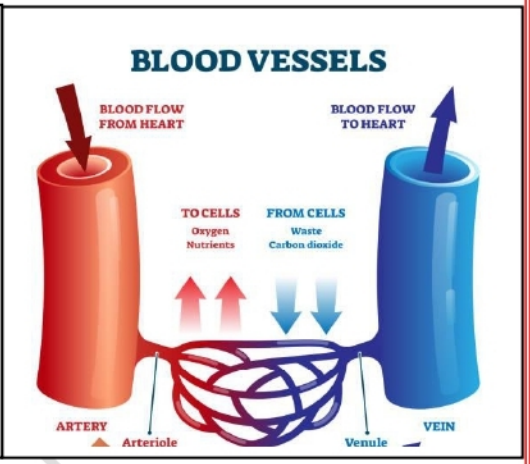


The Function of Heart

To maintain a constant flow of blood ensures that proper blood pressure is maintained in the body. Delivers oxygen, hormones and glucose various to the parts of the body. It transports metabolic wastes for detoxify and excretion.

Blood Vessels

1. **Veins supply deoxygenated blood** to the heart and drains into the **right atrium.**
2. **Arteries** are **muscular-walled tubes** involved in **supplying oxygenated blood** away from the heart to all other parts of the body.
3. **Capillaries** are tiny, tube-like vessels, which form a network between the arteries to veins.



Types of Circulation

1. **Pulmonary Circulation**: It is portion of the circulatory system responsible for carrying and returning blood between the heart and lungs
2. **Systemic Circulation Oxygenated blood** is pumped from the heart to every tissue in the body and deoxygenated blood returns to it
3. **Coronary Circulation**: This is important, as the heart is responsible for supply of oxygenated blood throughout the body.

Cardiovascular diseases

1. **Angina,** a type of chest pain that occurs due to decreased blood flow into the heart.
2. **Myocardial Infarction**, heart attack, or a sudden blockage to the heart's blood flow and oxygen supply
3. **Hypertensive** heart disease refers to heart problems that occur because of high blood pressure that is present over a long time.
4. **Arrhythmia**, or an irregular heartbeat or heart rhythm
5. **Congenital heart disease**, in which a problem with heart function or structure is present from birth
6. **Coronary artery diseases**, which affects the arteries that feed the heart muscle
7. **Heart failure,** wherein the heart cannot contract or relax normally

ASSESSMENT

A cardiovascular assessment in nursing involves determining a patient's cardiac symptoms in addition to looking for physical exam findings that suggest cardiovascular disease. An objective assessment includes physical findings on the exam (leg swelling or a heart murmur), while a subjective assessment includes the patient's reported symptoms (chest pain or shortness of breath).

Cardiovascular health history is to provide information about patient's cardiovascular symptoms, how they developed indications to potential or underlying cardiovascular illnesses or disease states.

Main symptoms and signs of heart diseases

1. Chest Pain or Discomfort history

2. Cyanosis: due to poor circulation or inadequate oxygenation of the blood.

3. Shortness of breath: congestive heart failure, pericarditis or respiratory disease

3. Pallor: a pale colour of the skin that can suggest underlying anemia (e.g. hemorrhage, chronic disease)

4. Malar flush: plum-red discolouration of the cheeks associated with mitral stenosis.

5. Oedema Peripheral: typically presents with swelling of the limbs

6. **Anorexia and abdominal discomfort**

7. **Fatigue and Syncope**

8. Cough and Palpitations

1. PAST HEALTH HISTORY

It is important to ask questions about your patient's past health history. Hypertension, elevated blood cholesterol or triglycerides, heart murmurs, congenital heart disease, rheumatic fever or joint pains

2. FAMILY HISTORY: Consanguineous marriage, History of coronary artery disease, Hypertension, Diabetes Mellitus, Sudden cardiac death in family.

3. CURRENT LIFESTYLE AND PSYCHOSOCIAL Status Nutrition habits.

Smoking, Alcohol, Exercise and Activity pattern, Medication and Drugs, Sleep and rest, Occupation, Customs and Traditions.

Palpate the radial pulse: Rate, Rhythm, Volume, and Vessel Wall

1. Rate Feel the radial pulse with 2 or 3 fingers

Count the pulse rate for 30 seconds and multiply for 2 to get pulse rate per minute

2. Rhythm: Regular – normal

Regularly irregular – when extra systoles * Irregularly irregular – atrial fibrillation

3. Volume: Normal volume

Small volume – low cardiac output *Large volume – thyrotoxicosis, anemia

4. Vessel Wall Stiffness

- In the **elderly stiff,** pulsating radial artery indicates **arteriosclerosis** (hardening of arterial wall that is common with aging) *Is associated with systolic hypertension

Immediate investigations vital observations of:

1. Heart Rate HR: rate and rhythm

2. Respiration: rate and effort

3. Blood pressure: both arms

4. Temperature: check if paracetamol had been taken

5. Electrocardiogram ECG: baseline interpretation

6. Cardiac Enzymes, Troponin tests and triglyceride and cholesterol levels

7. X ray

8. Holter monitor

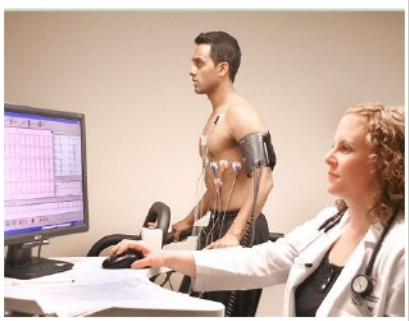
9. Echocardiography.

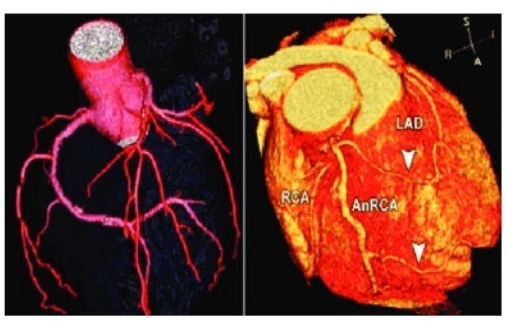
10. Transesophageal ultrasound if echocardiogram findings are not clear.

11. Cardiac catheterization.

12. Exercise tests or stress tests.

13. MR angiogram or CT angiogram





Eighth Week

Learning Objective

The student should be able to identify

1. To Identify the Peripheral Assessment
2. To Determine the General Health History
3. To Explain the Peripheral Physical Examination

Lecture Duration: **2 hours of theory + 4 hours of practice**

Activities used

1. Classroom Interactive Explanation
2. Brainstorming Techniques Questions
3. Group Assignment

Evaluation Methods

1. Immediate feedback
2. Involving students in self-assessment (correcting their own mistakes).
3. Solving the quiz questions as a class activity at the end of the lecture.

Peripheral Assessment

The peripheral vascular examination is performed to elicit signs of peripheral vascular pathology i.e. examining the blood vessels in the extremities.

(PVD) is a common reason for referral to the Peripheral vascular disease intermittent claudication vascular clinics, conditions include of the limbs.

emergency situations ischemia includes of the limbs.

Like most examination stations this follows the usual procedure of inspect, palpate, auscultate (look, feel listen

Arteries, capillaries, and veins provide blood flow to and from tissues.

the arterioles, are subjected to remarkable pressure generated from the myocardial contractions. They maintain blood pressure by constricting or dilating in response to stimuli. The veins and their smaller branches, which is called the venues, are less sturdy but more expansible, enabling them to act as a reservoir for extra blood, if needed, to decrease the workload on the heart.

Pressure within the veins is low compared with arterial circulation. The valves in each vein keep blood flowing in a forward direction toward the heart

Schematic drawing of artery and vein. Shown is the comparative thickness of three layers: fibrous connective tissue (tunica externa), muscle layer (tunica media), and lining of endothelium (tunica intima). Note that the muscle and outer coats are much thinner in the veins than in the arteries and that veins have valves.

General Health History

1.Present Health Status

Have you noticed any Color, temperature or texture changes in your skin?

Abnormal:

Arterial insufficiency the skin is cold and clammy on the extremities and thin, shiny skin with loss of hair especially over lower legs

Venous insufficiency the skin is warm with brown pigmentation are foundedaround the ankles

• Do you experience pain in your legs? Does it a waken you from sleep?

Abnormal: - Intermittent claudicating characterized by pain, tension, weakness that occurs with activity and is relieved with rest may indicate arterial disease

Do you have any leg veins that are ropelike, bulging or contorted?

Abnormal: - Varicose vein are hereditary but may also develop from increased venous pressure and venous pooling

Do you have any swelling edema in your legs or feet?

Abnormal: - Peripheral edema swelling resulting from obstruction in the lymphatic flow or from venous insufficiency or deep venous thrombosis

2.Past history

Describe any problems you have in the past with circulation in your arms or legs (e.g. blood clots, ulcers, coldness, numbness, swelling or poor healing)

• Have you had any heart or blood vessels surgeries or treatment

3.Family history

• Do you have a family history of diabetic hypertension

Coronary Artery Disease(CAD)

4.Life Style and Health Practice

Do you smoke? How many backs of cigarette per day for how many years?

What type of stress do you have in your life?

Do you exercise regular? What type of exercise and how often?

Regular exercise improves peripheral vascular circulation and decrease stress, pulse and blood pressure

Physical Examination

Inspection

• Arms are bilaterally symmetric - no edema or prominent of venous patterning

Color veins depending on clients 'skin tone The color should be the same bilaterally

Abnormal: - Raynaud's' disease characteristic rapid changes of color (pallor, cyanosis and rashes, swelling, pain numbness, tingling, burning thumbing and coldness)

Palpate

Skin is warm to the touch bilaterally from fingertips to upper arms

Abnormal: - A cool extremity may be a sign of arterial insufficiency Cold finger and hands are common findings with Raynaud's disease.

Inspect and palpate the legs

Abnormal: - Pallor, and some time rubor, when arterial insufficiency Cyanosis when, venous insufficiency

Normal: - Identical size and shape of the leg, no swelling, Legs are free of lesions or ulceration

1.**Abnormal**: - Bilateral edema may be detected by the absence of visible veins, tendons and usually indicates systemic problems as Lymph edema.

Unilateral edema caused by venous stasis

2-Abnormal: - Weak or absence Femoral pulses indicate partial or complete arterial occlusion

3-Abnormal: - Lymph nodes larger than 2 cm with or without tenderness (lymphadenopathy) may be from a local infection or generalized Lymphadenopathy, fixed nodes may be indicating malignancy

4-Abnormal: - Bruit over one or both femoral arteries suggested partial obstruction of the vessels and diminished blood flow to lower extremities

Bruit: soft blowing sound suggestive of narrowing and blood flow restriction when heard in a blood vessel

Ninth Week

Learning Objective

The student should be able to identify

1.To Identify the Abdominal Assessment

2. What are the peritoneum layers

3. To Describe the Digestive tract

4. To Determine of the Main Functions of the Digestive tract

Lecture Duration: **2 hours of theory + 4 hours of practice**

Activities used

1. Classroom Interactive Explanation

2. Brainstorming Techniques Questions

3. Group Assignment

Evaluation Methods

1. Immediate feedback

2. Involving students in self-assessment (correcting their own mistakes).

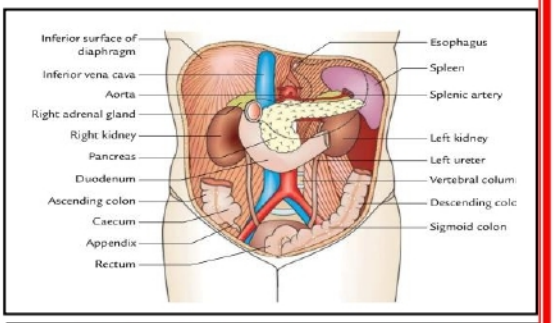
3. Solving the quiz questions as a class activity at the end of the lecture.

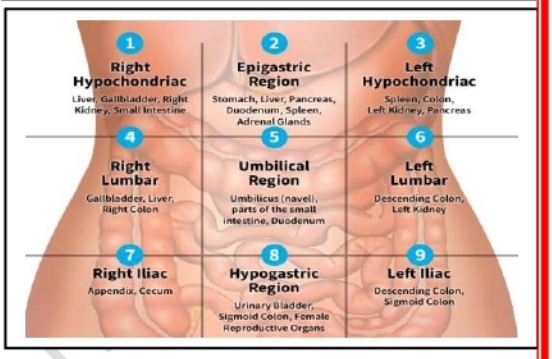
Abdominal Assessment

The abdominal cavity, the largest cavity in the human body, contains the stomach, small and large intestines, liver, gallbladder, pancreas, spleen, kidneys, ureters, bladder, adrenal glands, and major vessels

In women the uterus, fallopian tubes, and ovaries are located within the abdominal cavity.

The esophagus is located outside the abdominal cavity, but is a vital part of the gastrointestinal (GI) tract.





Peritoneum, Muscular, and Connective Tissue:

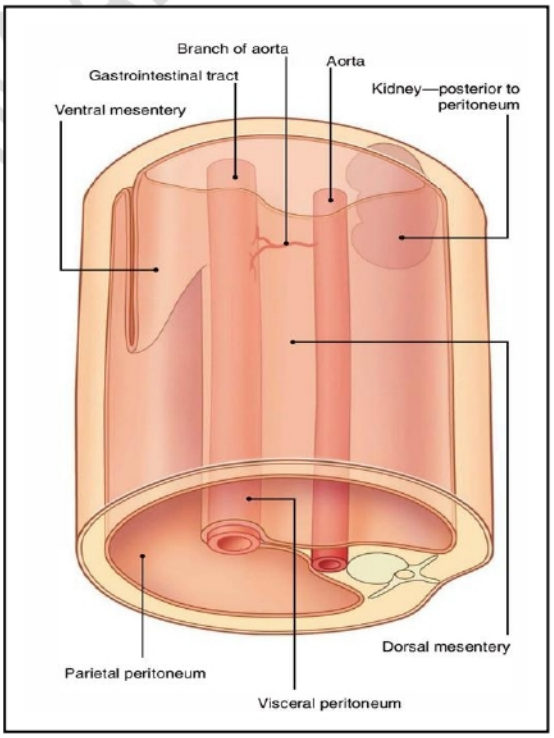
The abdominal lining, called the peritoneum, is a serous membrane forming a protective cover.

Two peritoneum layers:

1. **Parietal** peritoneum lines the abdominal wall
2. **Visceral** peritoneum covers organs.

The space between the parietal peritoneum and visceral peritoneum is the peritoneal cavity.

Contains a small amount of serous fluid to reduce friction between abdominal organs and their membranes.



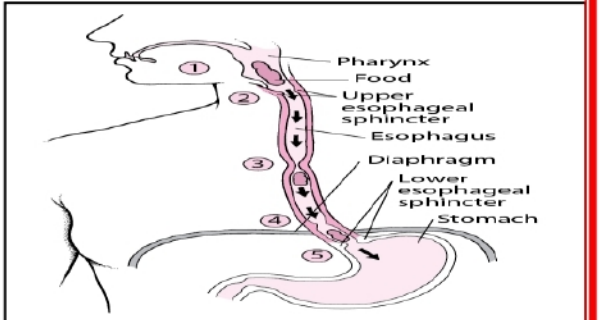
Digestive tract

The digestive tract extends 27 feet (8.2 m) from mouth to the anus.

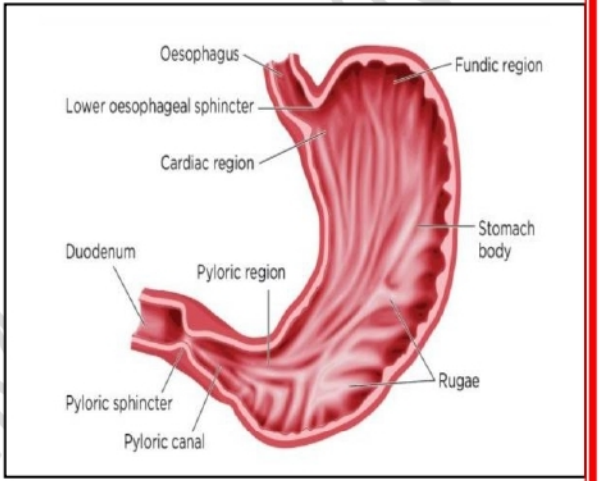
Includes the mouth, esophagus, stomach, small intestine, large intestine, rectum, and anal canal.

Its main functions are to ingest and digest food; absorb nutrients, water; and excrete waste products.

Esophagus: The alimentary tract begins with the esophagus, a tube about 10 inches (25.4 cm) long connecting the pharynx to the stomach and extending just posterior to the trachea.



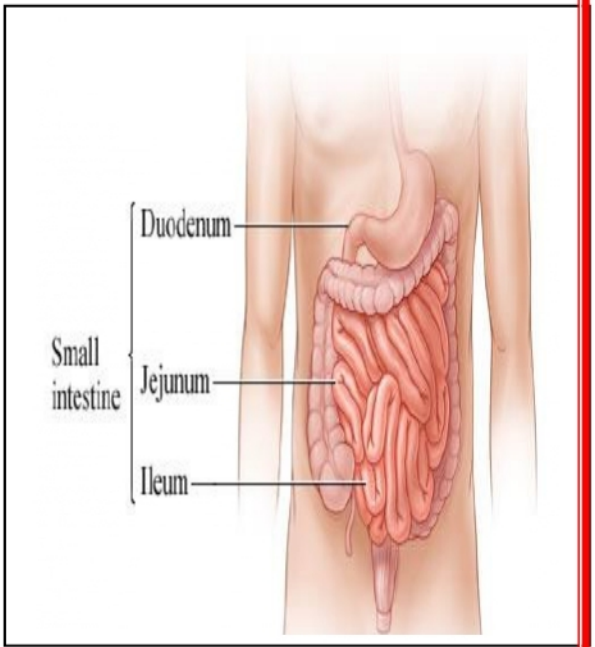
Stomach: The stomach is a hollow, flask-shaped, muscular organ located directly below the diaphragm in the left upper quadrant. The stomach also liquefies food into chyme and **propels it into the duodenum** of the small intestine. The pyloric sphincter regulates the outflow of chyme into the duodenum.



Small Intestine: The longest section of the alimentary tract, is about 21 feet (6.4 m) long, beginning at the pyloric orifice and joining the large intestine at the ileocecal valve.

In the small intestine ingested food is mixed, digested, and absorbed. The small intestine is divided into three segments: the **duodenum**, **jejunum**, and **ileum**. The duodenum occupies the first 1-foot (30 cm) of the small intestine and forms a C-shaped curve around the head of the pancreas.

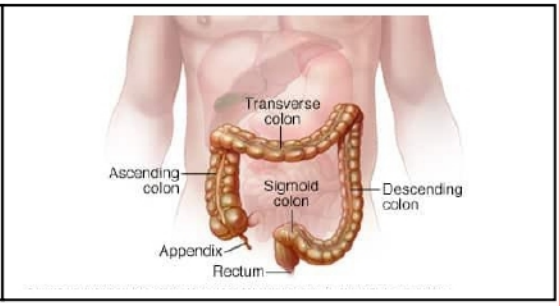
Absorption occurs through the intestinal villi of the duodenum,



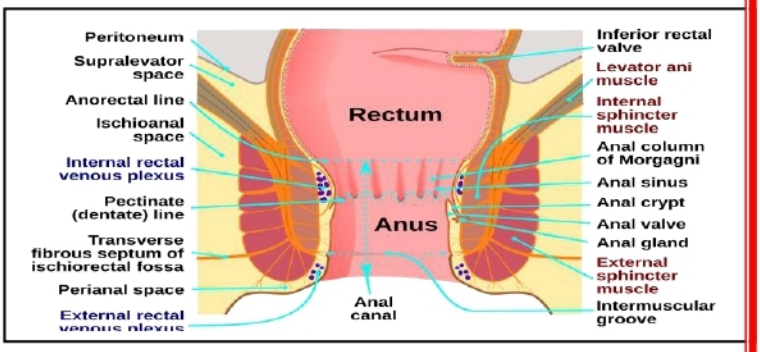
Large Intestine (Colon) : The large intestine is about 5 feet (1.5 m) long, consisting of cecum, appendix, colon, rectum, and anal canal.

The colon is divided into three parts:

Ascending, **Transverse**, and **Descending**.



Rectum: Terminating at the anus. The large intestine absorbs water and electrolytes. **Feces** are formed in the large intestine and held until defecation



A. Inspection of Abdomen

1. general shape of the abdomen
2. Scars of previous operation (scar of caesarean section, appendectomy)
3. Mass
4. Lesion
5. Abdominal distension

B. Auscultation of Abdomen

1. Auscultation of abdomen is done **before percussion and palpation because they will change bowel sounds**

2. Auscultation of bowel sounds needs 5 minutes to confirm or exclude sounds

3. **Intestinal obstruction** can present with high pitch sound or can be silent because first the intestine will try to clear out the obstruction.

4. Absence of sounds may be caused by peritonitis, late- stage bowel obstruction, intestinal ischemia

C. Palpation of Abdomen

Palpate all areas of the patient's abdomen and being mindful **of areas of discomfort,** begins by palpating areas of no pain. This is done twice, **lightly and then deeply.** On light palpation, the examiner tests for any palpable mass, rigidity, pain. On deep **palpation we check for organomegaly** (enlargement of an organ)

D. Percussion of Abdomen

Percussion is done **by tapping the middle finger** against the middle finger of the opposite hand, which rests against the surface of the abdomen in all nine areas tested. Percussion can elicit a **painful response in the patient,** and may also reveal if there is **abnormal levels of fluid in the abdomen**. Organomegaly may also be noted, including splenomegaly (enlargement of the spleen), hepatomegaly (enlargement of the liver)

Tenth and Eleventh week

Learning Objective

The student should be able to identify

1.To Identify the Nervous System Assessment
2. What are the autonomic nervous system
3. To Identify the components of the Brain
4. To Describe of the Cranial Nerves and Their Functions
5. To Describe of the General Health History
6. To Determine Assess Mental Status and Level of Consciousness
7. To Describe the Observe Gait for Balance and Symmetry.
8. To Identify Special Circumstances or Advanced Practice: Cranial Nerves

Lecture Duration: **2 hours of theory + 4 hours of practice**

Activities used

1. Classroom Interactive Explanation
2. Brainstorming Techniques Questions
3. Group Assignment

Evaluation Methods:

1. Immediate feedback
2. Involving students in self-assessment (correcting their own mistakes).
3. Solving the quiz questions as a class activity at the end of the lecture.

NERVOUS SYSTEM ASSESSMENT

The nervous system controls body functions through voluntary and autonomic responses to external and internal stimuli. Structural divisions of the nervous system is the central nervous system (CNS), which consists of the brain and spinal cord; the peripheral nervous system; and the **autonomic nervous system (ANS).**

1. Peripheral Nervous System
2. Central Nervous System
3. Autonomic Nervous System

Peripheral Nervous System

Cranial Nerves

Spinal Nerves

Central Nervous System

Protective Structures

Cerebrospinal Fluid

Cerebral Ventricular System

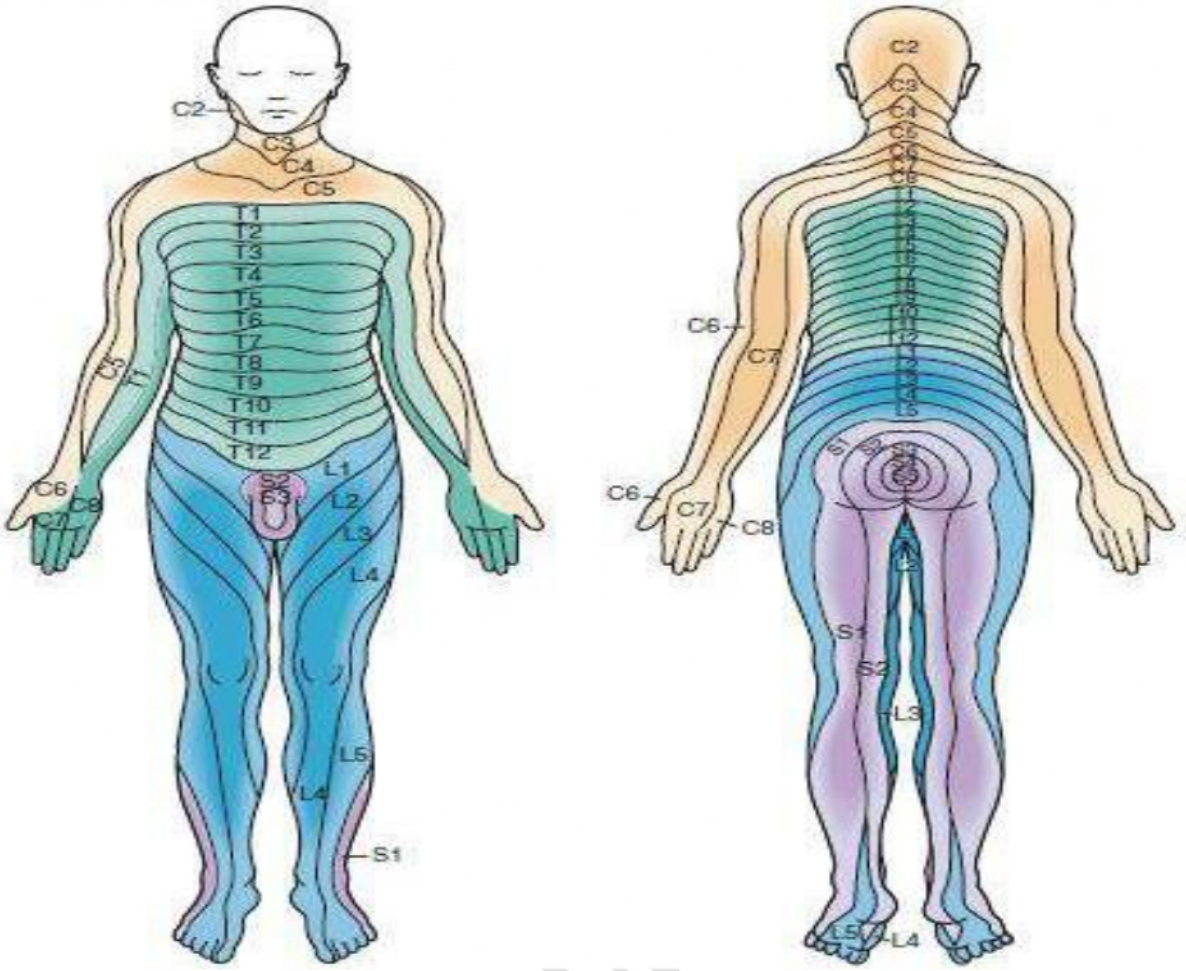
Brain: - consist of

1. Cerebrum **2. Diencephalon** **3. Basal Ganglia**

4. Brainstem **5. Cerebellum** **6. Spinal Cord**

The Cranial Nerves and Their Functions

	Cranial Nerve	Functions
1	Olfactory	**Sensory:** Smell reception and interpretation
2	Optic	**Sensory**: Visual acuity and visual fields
3	Facial	**Motor**: Movement of facial expression muscles except jaw, close eyes, **Sensory**: Taste—anterior of tongue
4	Acoustic	**Sensory**: Hearing and equilibrium



Dermatome map. Letters and numbers indicate the spinal nerves innervating a given region of skin.

Health History

General health History

Present Health Status

1. Have you noticed any changes in your ability to move around?
2. Do you haveany chronic diseases? If yes, describe?
3. Which medications do you take? Are you taking medications as prescribed?

Past Health History

1. Have you ever had injury to your head or spinal cord? If yes, describe when this happened.
2. Have you ever had surgery on your brain, spinal cord, or any of your nerves? If yes, describe?
3. Have you ever had a stroke? If yes, describe when and what residual changes you have as a result of the stroke.

Family History

In your family has anyone ever had a stroke, or tumor of the brain or spinal cord?

Personal and Psychosocial History

1. Have you had any changes in your ability to perform your personal care or daily activities?

2. How much alcohol do you drink per week? Do you use or have you ever used substances such as marijuana, cocaine?

Procedures and Techniques with Expected Findings

Assess Mental Status and Level of Consciousness

Normal

Say the patient's name and note the response.

The patient is expected to turn toward you and respond.

While taking the patient's history you gather data about his or her mental status and level of consciousness.

Abnormal

Patients who do not know their name or location are disoriented. even painful stimuli to respond have a decrease in level of consciousness A change in level of consciousness is the first sign of impaired cerebral function.

OBSERVE Gait for Balance and Symmetry.

Normal

When the patient walks into the room, notice the gait. The patient should be able to maintain upright posture, walk Observing equilibrium is a test of CN (acoustic nerve)

Abnormal

Poor posture, unsteady gait, rigid or absent arm movements, trunk and head held or parkinsonian gait (stooped posture, elbows, & knees) is abnormal.

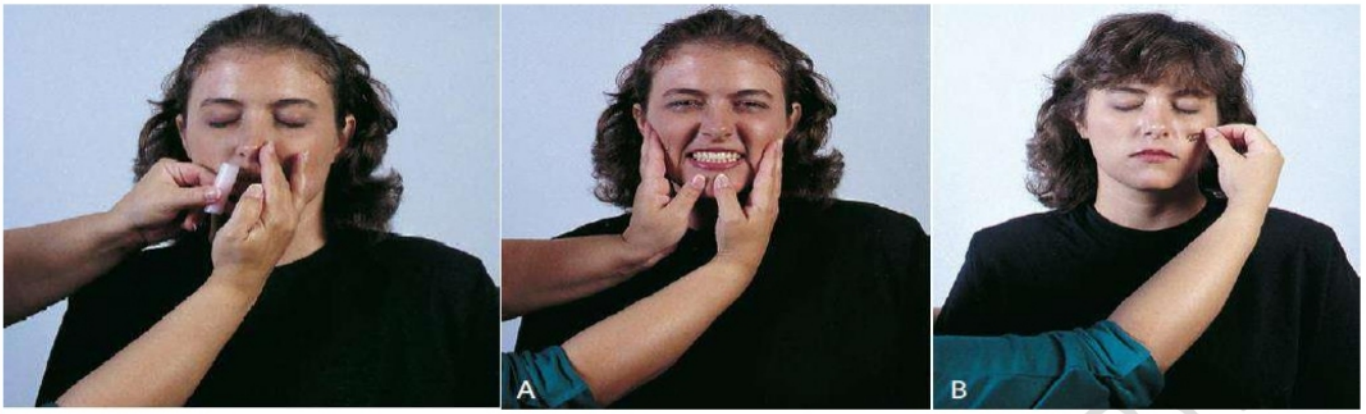
Special Circumstances or Advanced Practice: Cranial Nerves

TEST Nose for Smell.

Evaluate the olfactory cranial nerve (CN1). Have the patient close his or her eyes and mouth? Ask the patient to identify common smell substances held under the nose. Examples include coffee, toothpaste and orange, the patient should be able to identify smell.

TEST Eyes for Visual Acuity.

Test the optic nerve (CN2) for visual acuity using Snellen's chart examination of the eye



Examination of the olfactory cranial nerve

Examination of the trigeminal nerve (CN V) for motor function (A) and sensory function (B).

Evaluate the facial cranial nerve (CN 3) for movement. Inspect the face at rest and during conversation. Have the patient raise the eyebrows, purse the lips, close the eyes tightly, show the teeth, smile, the movements should be smooth and symmetric

Twelfth and Thirteenth Week

Learning Objective

The student should be able to identify

1.To Identify the Head and Neck Assessment

2. What are the Focused Health History for the Head, Face, and Neck

3. To Describe the Assessment of the Eye, Nose, Ear, Neck and Lymph Nodes

Lecture Duration: 2 hours of theory + 4 hours of practice

Activities used

1. Classroom Interactive Explanation

2. Brainstorming Techniques Questions

3. Group Assignment

Evaluation Methods:

1. Immediate feedback

2. Involving students in self-assessment (correcting their own mistakes).

3. Solving the quiz questions as a class activity at the end of the lecture.

Musculoskeletal System Assessment

Subjective data: ask about:

1.Pain: at *rest*, with exercise, changes in shape or size of an extremity, changes in *mobility* to carry out activities of daily living, sports, and works.

2.Stiffness: time of day, relation to weight,*" bearing or exercise".*

3.Sensations, decreased or altered or absent.

4.Redness or swelling of joints.

5.History of fractures and orthopedic surgery.

6.Occupational history.

Assessment of musculo-skeletal system

done firstly when the client walks, moves in bed or performs any type of physical activity.

1.Determine Range of motion, muscle strength, tone, joint and muscle condition.

Note

Muscle problems commonly manifestations of neurological disease, so you must do neurological assessment simultaneously.

2.Joints vary in their degree of mobility, range from freely movable e.g. knee, to slightly movable joints e.g. spinal vertebrae.

3.Assessment of muscle groups: assess muscle weakness, or swelling, and size, then compare between sides.

4.**Joints** should not be forced into painful positions.

5.Observer gait and posture as client walks into room.

Normally client walks with arms swinging freely at sides and head/face leading the body.

6. Loss of height

Is frequently the first clinical sign of osteoporosis.

Small amount of height loss expected with aging.

Ask client to put each joint through its full range of motion, if there is weakness, gently supporting & moving extremities through their Range of motion, to assess abnormalities.

Normal joints non tender, without swelling and move freely.

Note: "You must assess these points": In elderly joints often become swollen/stiff, with reduced Range of motion, resulting from cartilage erosion and fibrosis of synovial membranes.

The Musculoskeletal system include

Muscles, Tendons, Bones, Joints

The musculoskeletal system is a common cause of pain and disability among elderly

Important to differentiate between inflammatory and mechanical disorders

What is important in assessment is :

Does the problem arise from the joint, tendon or muscle?

Is the condition acute or chronic?

Is the condition inflammatory or non-inflammatory (mechanical)?

What is the pattern of affected areas/joints?

Dose the condition affects patient's daily activity

Arthritis means any disorder that affects joints Symptoms include joint pain and stiffness. Other symptoms may include redness, warmth, swelling and decreased range of motion of the affected joints. Onset can be gradual or sudden

Osteoarthritis OA usually occurs with age and affects the fingers, knees, and hips.

Rheumatoid Arthritis is an autoimmune disorder that affects the hands and feet

Rheumatoid Arthritis is worse in the morning and associated with stiffness for 30 minutes.

Osteoarthritis tends to be associated with morning stiffness which eases quickly with movement and exercise

Other types of Arthritis include gout, lupus fibromyalgia, and septic arthritis

Symptoms of Arthritis include joint pain, swelling, stiffness

Important to know how many joints are affected and if symmetrical (both side of the body) or asymmetrical

Monoarthritis means only one joint is affected

Oligoarthritis means four joints

Polyarthritis means many joint

Rheumatoid Arthritis is polyarthritis and symmetrical involving a group of joint (hands)

Osteoarthritis affects weight bearing joints

Fourteenth Week

Learning Objective

The student should be able to identify

1.To Identify the Female Genitalia

2. What are the Assessment of Female Genitalia

3. To Describe the Stages of breast development

4.To Identify the Male Genitalia

5. What are the Assessment of Male Genitalia

Lecture Duration: **2 hours of theory + 4 hours of practice**

Activities used

1. Classroom Interactive Explanation

2. Brainstorming Techniques Questions

3. Group Assignment

Evaluation Methods:

1. Immediate feedback

2. Involving students in self-assessment (correcting their own mistakes).

3. Solving the quiz questions as a class activity at the end of the lecture.

Reproductive System Assessment

Female and Male Genitalia

Female Genitalia: check for the followings:

Menstrual history: check for last menstrual period(LMP)

Menarche (occur between 12 and 14 years indicate normal growth; Onset between 16 and 17 years suggests an endocrine problem.

Cycle- normally varies every 18 to 45 days.

Amenorrhea- absent menses.

Duration- average 3 to 7 day

Menorrhagia- heavy menses.

Obstetric history: Gravida- number of pregnancies.

Para- number of births.

Abortions- interrupted pregnancies, including elective abortions and spontaneous miscarriages.

For each pregnancy, describe duration, any complication, labor and delivery, baby's sex, birth weight, condition.

Self-care behaviors: assess self- care behaviors

(last papanicolaou smear? Result?

Have your mother ever mentioned taking hormones while pregnant with you?

Urinary symptoms; - Frequency, urgency, Dysuria, Hematuria, Bile in urine or urinary tract infection.

True incontinence- loss of urine without warning.

Stress incontinence- loss of urine with physical strain due to muscle weakness.

Vaginal discharge: - normal discharge is small, clear or cloudy, and always nonirritating. White, yellow green, gray, curd like, foul smelling discharge suggests vaginal infection.

Past history: check for any other problem in the genital area(Sores or lesions-now or in the past), any abdominal pain, any surgery on the uterus, ovaries, or vagina.

Sexual activity: check for sexual relationship, communication with spouse, interest, beliefs, and the number of partners.

Contraceptive use- currently planning a pregnancy or prevent pregnancy.

Which method used.

Sexual transmitted disease (STD) contact; check for any sexual contact with partner having a STDs (gonorrhea, herpes, AIDS, chlamydial infection, venereal warts, and syphilis)

STD risk reduction: check if the person take any precautions to reduce risk of STDs(use condom)

Assessment of Female Genitalia

Inspection

Look for distribution, amount, and characteristics of pubic hair.

Inspect skin for color, edema, and lesions.

Separate labia major and labia minor for a thorough inspection.

Inspect clitoris, urethral meatus and vaginal introitus when separating labia minora.

Breast

Male breast: is a rudimentary structure consisting of a thin disc of undeveloped tissue underlying the nipple. The areola is well developed; the nipple is relatively very small.

During adolescence, it is common for the breast tissue to temporarily enlarge, producing **gynecomastia**.

Female breast:

Stages of breast development

1.Preadolescent Stage

Only a small elevated nipple.

2. Breast bud Stage

A small amount of breast & nipple develops; the areola widen

3. The breast and areola enlarge

The nipple is flush with the breast surface.

4. Areola and nipple emergence stage

The areola and nipple from a secondary mound over the breast.

5. Mature breast

only the nipple protrudes, the areola is flush with the breast contour (the areola may continue as a secondary mound in some normal women.

Examination of breast

Check for the followings:

Pain, lump or thickening, discharge, rash, swelling, trauma, history of breast isease, and self –care behaviors(breast-self-examination)

Axillary

Check for tenderness, lump, swelling, rash, and nodes

Male Genitalia: check for the followings:

Frequency: average adult voids five to six times/day, varying with fluid intake, individual habits.

Urgency

Hesitancy and straining. Loss of force, terminal dribbling, sense of residual urine.

Penis: pain, lesions, or any discharge.

Scrotum, self-care behaviors. Notice any lump, swelling, hernia.

Sexual activity and contraceptive use. Ask about relationship involving sexual intercourse now.

STD contact.

Prostate gland Check for:

Size: 25 cm long by 4 cm wide; should not be protrude more than 1 cm into the rectum.

Shape: heart shape, with palpable central groove.

Consistency: elastic, rubbery.

Mobility: slightly movable.

Sensitivity: non-tender or palpation

Assessment of Male Genitalia

Pubic hair

Look for distribution, amount, and characteristics.

Penis

Inspect the anterior and posterior surfaces by lifting the penis.

Retract foreskin on uncircumcised clients.

Note lesions, edema, and inflammation.

Palpate the penile shaft.

Note pulsations, tenderness, swelling, masses, or plaques.

Inspect the urethral meatus.

Note location, color, and presence of discharge

Scrotum

Gently move penis to one side to assess scrotal skin.

Lift up posterior side.

Note lesions, inflammation, and edema.

Begin scrotal palpation at right testicle.

Proceed to the epididymis, then to the spermatic cord and the external ring.

Note consistency and presence of tenderness or masses.

Inguinal area

Have client stand, if possible.

Inspect first while client is at rest, then instruct client to bear down.

Observe for bulges.

Begin palpation on client's right side.

Invaginate (telescope) loose scrotal skin with index finger.

Follow spermatic cord upward to opening of external inguinal ring.

Ask client to cough or bear down to check for mass or bulging.

Bearing down may make hernia visible.

Fifteenth Week

Learning Objective

The student should be able to identify

1.To Identify the Laboratory Test

2. What are the causes for the Procedureing of Laboratory testing

3. To Describe the Common Laboratory Tests

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LABORATORY TEST

Laboratory Test : A medical procedure that involves testing a sample of blood, urine, or other substance from the body.

Laboratory tests can help determine a diagnosis, plan treatment, check to see if treatment is working, or monitor the disease over time.

The causes for the Procedureing of Laboratory testing:

1. Identify changes in health condition
2. Diagnose a disease or condition
3. Plan a treatment for a disease or condition
4. Evaluate the response for a treatment
5. Monitor the course of a disease over time.

Common Laboratory Tests

Liver Function Tests

1. Serum bilirubin levels normal range (0.2 – 0.8 mg/dL).
2. Prothrombin Time (PT) normal range (11-13.5 seconds).
3. Alkaline phosphatase (ALP) normal range (40 – 125 U/L).
4. Alanine aminotransferase (ALT or GPT) normal range male (13-35) female (10-30).
5. Aspartate aminotransferase (AST or GOT) normal range (8 – 20 U/L).
6. C-Reactive Protein (CRP) normal range (less than 10mg/l)

Renal Function Tests

1. Blood Urea Nitrogen (BUN) normal range (7-30 mg/dl)
2. Serum Creatinine (SCr) normal range (0.7 – 1.3 mg/dl).
3. Uric Acid normal range (3-7 mg/dl).
4. General Urine Examination (GUE).

Cardiac Function Test

1. Cardiac Troponin Test normal range (negative).

Blood tests

1. Pregnancy test (HCG) pregnant (positive) non-pregnant (negative).
2. Fasting Blood Sugar (FBS) normal range (70-110 mg/dl)
3. Random Blood Sugar (RBS) normal range (110-170 mg/dl)
4. Hemoglobin A1c (HbA1c) normal range (4-6%)
5. Serum calcium (S Ca) normal range (8.6 – 10.5 mg/dl).
6. White Blood cell (WBC) normal range (4600-10400).
7. Hemoglobin (HB) normal range
8. Hematocrit or packed Cell volume (PCV) normal range (male (40-47%) female (39-48%).
9. Serum Cholesterol normal range (less than 200mg/dl).
10. Serum Triglyceride normal range (less than 160mg/dl).
11. Erythrocyte Sedimentation Rate (ESR) normal range men (0-15 mm/hr) women (0-20 mm/hr).

GIT Test

1. General Stool Examination
2. H. pylori in serum normal range (negative).
3. H. pylori in stool normal range (negative).