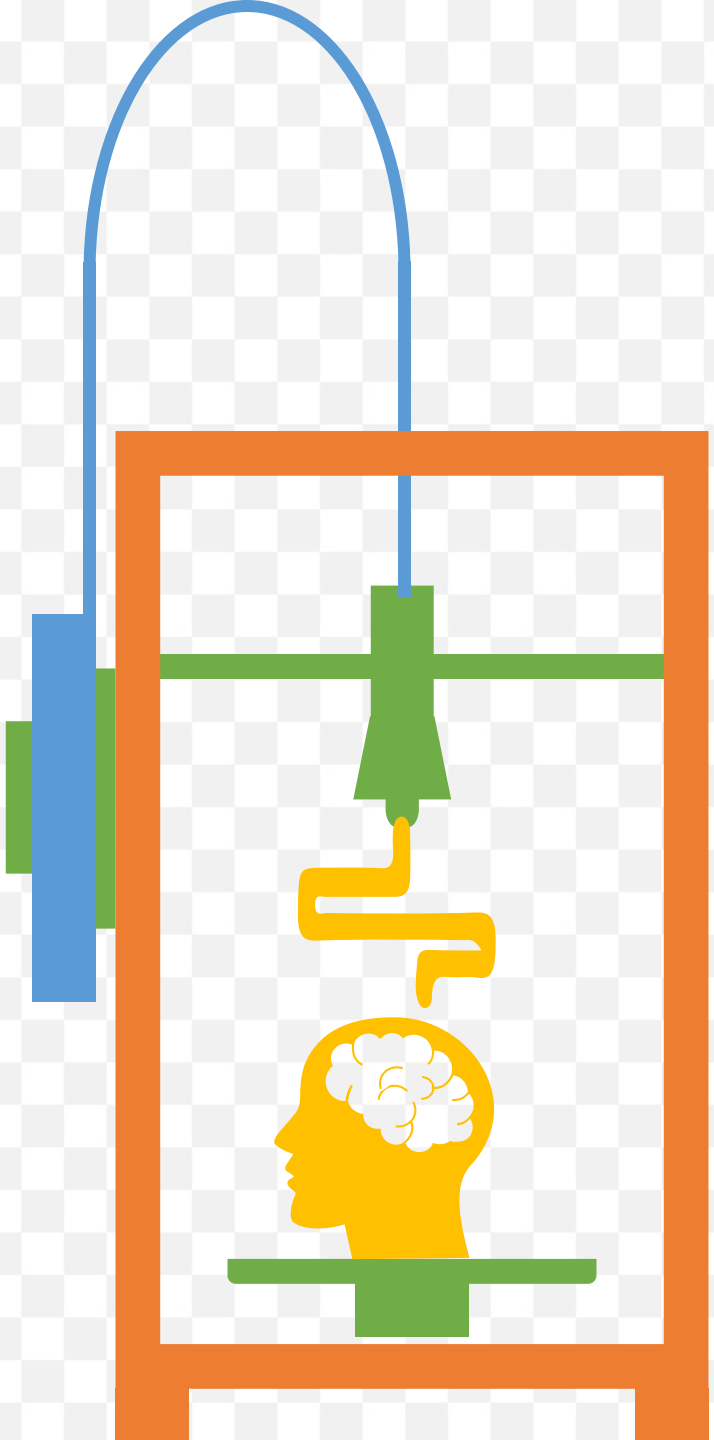

physical examination

Prepared by:
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Objectives:

1. Define physical examination.
2. Clarify the physical assessment **skills**
3. Illustrate type of physical examination.
4. Explain the Preparation of the Environment (examination room).
5. Identify the Sequence of Pediatrics' Physical Examination.

physical examination

- **Physical examination** is an essential part of the pediatric health assessment in which objective data are collected through various examination techniques to validate the subjective data gathered during the history-taking phase of the assessment.
- The health care provider must possess strong physical assessment **skills and a knowledge base** specific to the developing bodies and minds of children.
- These assessment **skills include inspection, palpation, percussion, and auscultation.**
- Specialized **knowledge** includes an awareness of the physical and psychosocial developmental stages from infancy through adolescence, which allows the provider to adapt his or her approach to the child's age and developmental level and obtain the most accurate findings while maintaining optimal comfort for the child.

Inspection

the technique of inspection should be conducted in the following systematic sequence regardless of the child's age:

1. **General to specific:** The provider should first look at the child as a whole person, then narrow the focus to systems, organs, and then to the sites of any complaints (e.g., first do a general survey, then inspect the mouth, and then focus on the teeth and their overall condition).
2. **Head to toe:** The provider should begin inspection at the top of the child's head and end at the feet to be sure that no area of the body is missed.
3. **Outside to inside:** When inspecting a body structure **with an orifice**, the provider should inspect the outside first and then the inside (e.g., when inspecting the ear, first inspect the auricle, then the external auditory canal, and then the tympanic membrane).
4. **Medial to lateral:** the provider should inspect the area from the middle outward (e.g., to examine the breast, first inspect the areolae and nipples, then the breasts, axillae, and then the supraclavicular region).
5. **Anterior to posterior:** The provider should always inspect the front of the body first and then the back.
6. **Distal to proximal:** This inspection technique applies to the extremities (e.g., the provider should first inspect the toes, and then proceed up the leg to the shin, knee, thigh, and hip).

Palpation

FIGURE 8.2. Light palpation.

FIGURE 8.3. Deep palpation.

Light palpation is done with the dominant hand and with the fingers together. The fingers are placed on the skin and the area is gently pressed **1 cm** deep in a circular motion.

Light palpation is used to assess skin temperature, moisture, turgor, and texture; it is also used to assess muscle tone, large masses, edema, and superficial tenderness.

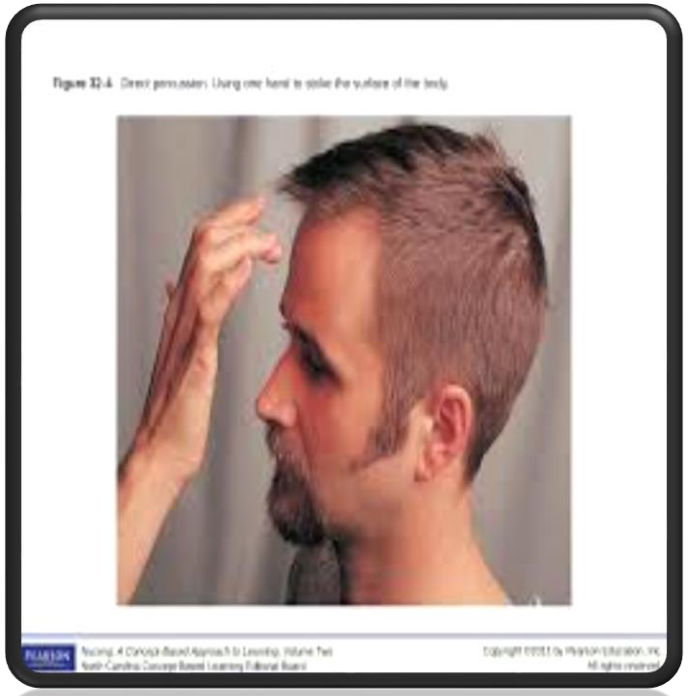
Deep palpation involves the use of both hands. The provider should place his or her dominant hand on the child's skin and then place the non dominant hand on top of the dominant hand and depress to a depth of approximately **4 to 5 cm.**

Deep palpation is used to palpate the position of organs, large blood vessels, or masses and to note their size, shape, consistency, and mobility.

Percussion

Percussion can be *direct*, *indirect*, or *blunt*.

1. **Direct percussion** involves tapping an area of the body with one or two fingers directly on the skin (e.g., percussion of the thorax to diagnose pneumothorax).
2. **Indirect percussion** requires the use of both hands. This type of percussion is most often used when assessing the chest and abdomen. the provider should gently place the middle finger (plexímeter) of the non dominant hand on the child's body. The next step is to use the middle finger of the dominant hand to strike the distal joint of the plexímeter. (taking care that the fingernail is short)



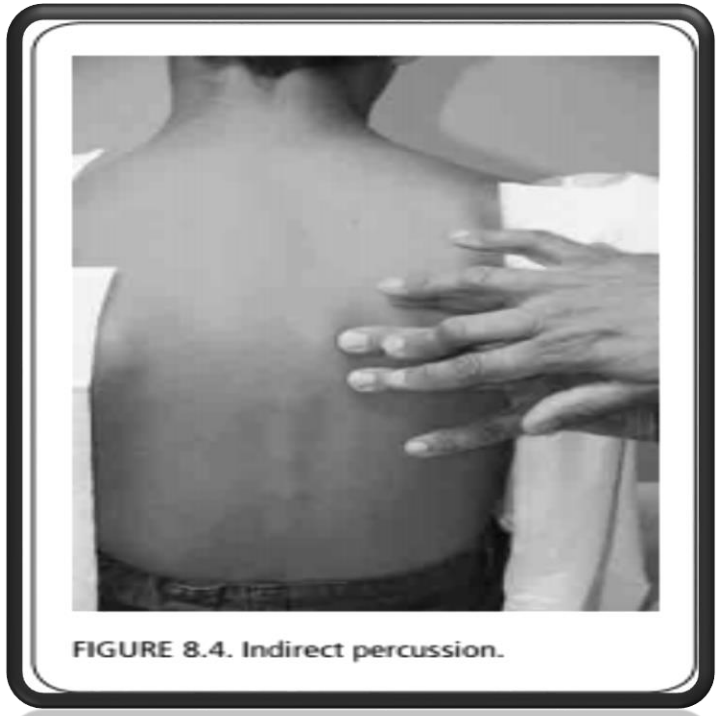


FIGURE 8.4. Indirect percussion.

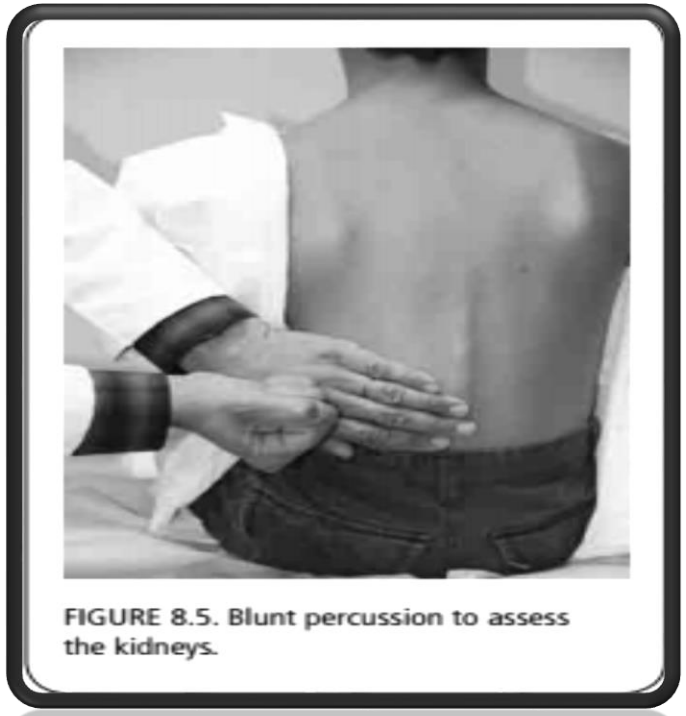
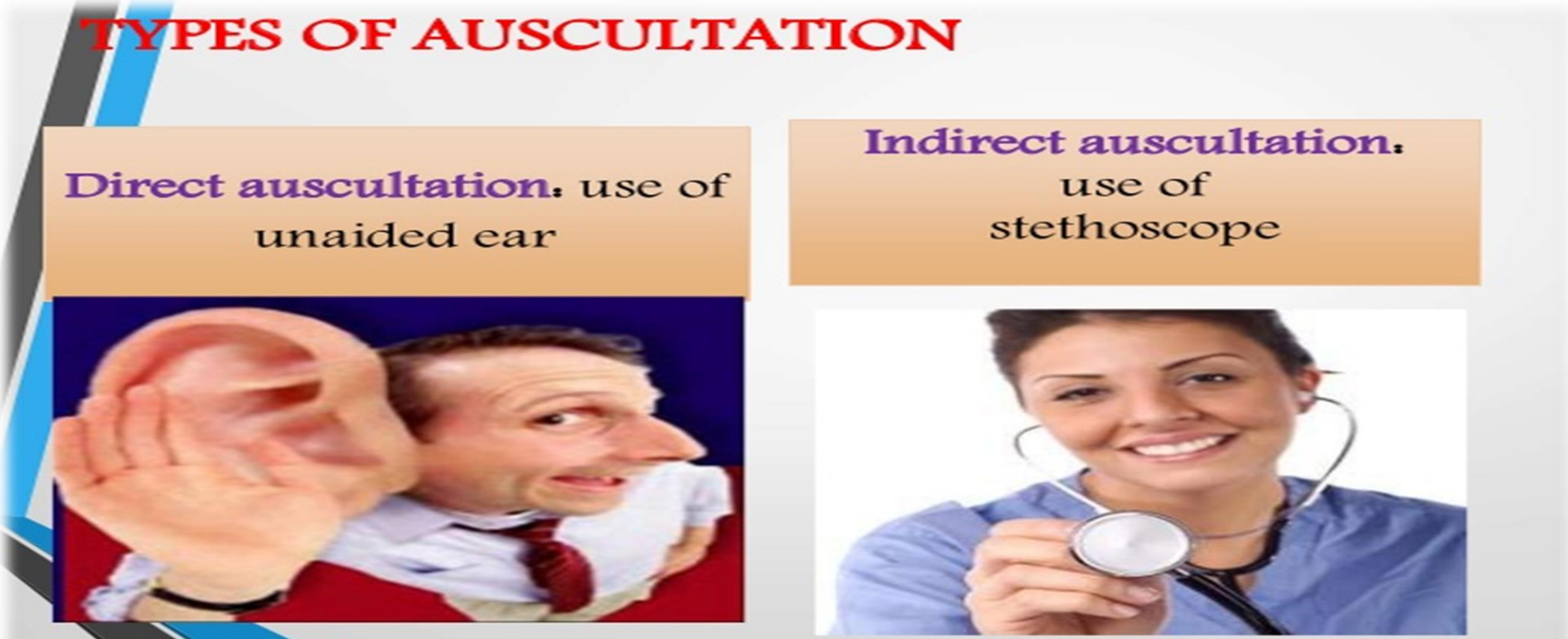


FIGURE 8.5. Blunt percussion to assess the kidneys.

Auscultation

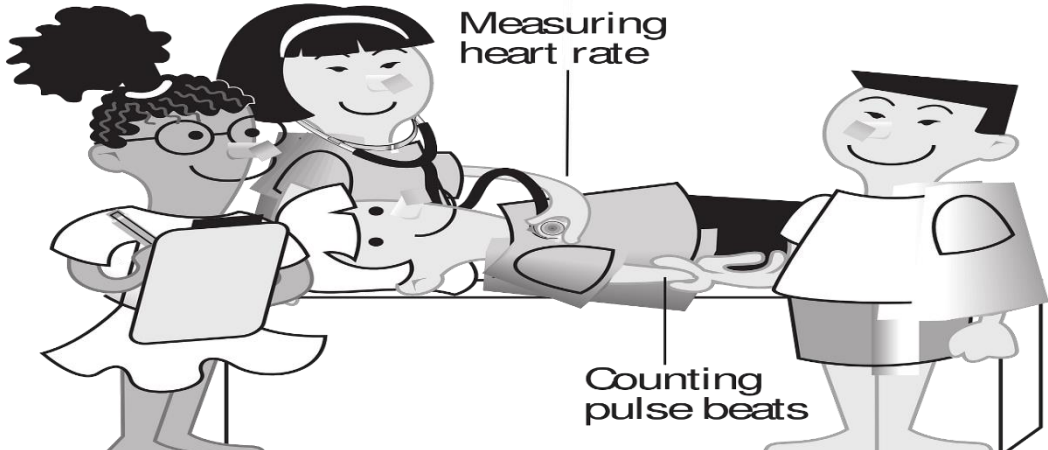
Auscultation involves listening to body sounds produced by the airway, lungs, heart, blood vessels, stomach, and intestines. Most of these sounds require the use of a stethoscope to be heard adequately. Some of these sounds can be heard directly by the ear, especially those produced by the upper airway, lungs, gastrointestinal tract, and even speech.



There are two types of physical examinations:

1. ***Complete*** **(head-to-toe)**. Children who are new to the provider's practice or who are being seen for their yearly health maintenance visits, school physicals, or sports physicals require a full head-to-toe physical examination.

2. **A focused physical examination** complements the focused history and simply concentrates on the area of the chief complaint. This type of physical examination is done when a child presents to the emergency room or clinic with an illness, injury, or other specific complaint



Note…

- The pediatric physical examination differs from the adult examination in that the approach to the patient and the sequence of the examination differ according to age and developmental level. Together, the history and physical exam provide information that leads to the child's diagnosis and forms the basis for the provider's management plan.

Sequence of Pediatric Physical Examination According to Age and Developmental Level

- **Age group:** Newborns and young infants (0–6 months)
- **Preparation:** Place supine on exam table. Offer breast /bottle/ pacifier to quiet newborn for exam.
- **development Considerations:** Lack of head control until 4–6 months. Infants respond well to smiling faces and soft voices
- **Sequence:** Perform least distressing aspects of exam first (i.e., if quiet، auscultate heart and lungs; proceed head to-toe, then examine ears, nose, and throat last).

Older infants (6–12 months)

- **Preparation: Position:** May need to examine in parent's lap because of **stranger anxiety (begin 7 month)** if no distress, place on exam table with parent in view. Ensure that exam room is a comfortable temperature. Offer breast/bottle/ pacifier to quiet crying infant.

- **Development Considerations:** Infants prefer smiling faces and soft voices .May respond well to noisemakers or toys to see or hold

- **Sequence:** Perform least distressing aspects of exam first (i.e., if quiet, auscultate heart and lungs; proceed head to toe)

Toddlers

- **Preparation: Position:** Examine child on parent's lap or exam table, depending on where child is most cooperative. Gain toddler's confidence before beginning exam
- **Development Considerations:** Stranger anxiety decreases by approximately 18 months of age؛ separation anxiety by approximately 2 years. Toddlers are negativistic; often respond "no" when they mean "yes ".
- **Sequence:** Perform least distressing and least intrusive aspects of exam first. Auscultate, palpate، and percuss whenever quiet.

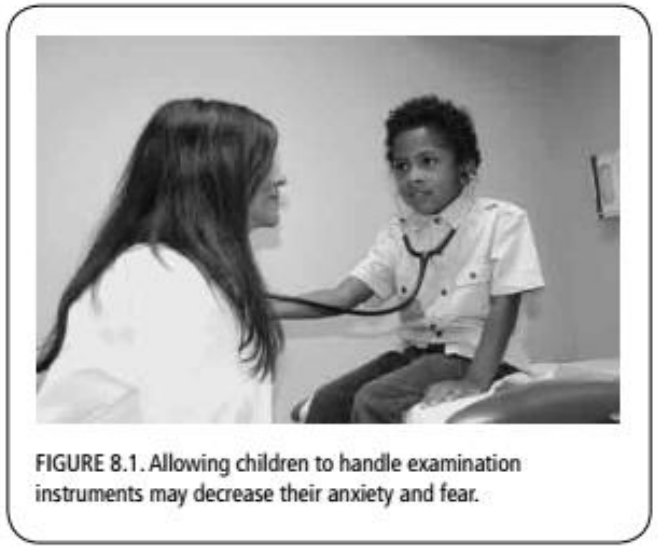


FIGURE 8.1. Allowing children to handle examination instruments may decrease their anxiety and fear.

Preschooler

- **Preparation: Position**: Exam table with parent nearby.
- To allay fears, may use dolls, stuffed animals‹ or parent to “examine” first before child. Allow preschooler to see and touch equipment. Give preschooler gown.
- **Development Considerations:** They like to “help” and are concrete, literal thinkers and Magical thinking. Preschooler may think she or he is ill because of bad behavior (magical thinking).
- **Sequence:** Head to toe if cooperative. Otherwise use approach as with toddler

School-aged children

- **Preparation:** Position: Exam table
- Give child gown and ask child to undress except for underpants.
- Explain purpose of all equipment.
- **Development Considerations:** Can now address questions more directly to child. Answer child's questions honestly and concretely
- Protect privacy and modesty
- **Sequence:** Preform head to toe with genitalia last

Adolescents

- **Preparation:** Position: Exam table
- Provider should explain confidentiality parameters. Offer option for parent to be present or to leave the room during physical exam. Give teen a gown; allow to undress in private.
- **Development Considerations:** active participation from teen when obtaining health history. Confidentiality and privacy are important. Protect modesty. Address teen directly during exam.
- Private Discuss issues of sexuality and body development.
- **Sequence:** Preform head to toe with genitalia last

Nursing diagnosis

- Health seeking behaviors(physical exam) related to infant /child health promotion / maintenance.
- Anxiety related to lack of knowledge about physical assessment procedures.

Thermometer (for measuring temperature)

Sphygmomanometer (for measuring blood pressure)

Scale (to measure weight and height)

SUMMERY

Stethoscope (for measuring blood pressure and listening to heart, lung, and bowel sounds)

Pocket ruler (to measure size or distance)

Tape measure (to measure circumference and length)

Gloves (to wear if there is any possible exposure to blood or body fluids)


Health Assessment:
Performing a Physical Exam
Comprehensive
Focused
Ongoing
Preparation
Self
Environment
Client
Positioning
Skills
Inspection
Palpation
Percussion
Auscultation
Olfaction
Adaptations for Various Age Groups
Infants
Toddlers
Preschoolers
School-age
Adolescents
Young and Middle adults
Older adults
General survey
Body system assessment
Documentation

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Thank you for listening