

DEFINITION OF PHYSICAL EXAMINATION

Physical examination is defined as a complete assessment of patient's physical and mental status.

DEFINITION OF HEAD TO TOE PHYSICAL ASSESSMENT

Head to toe assessments or systems assessment include all the body systems and a systematic approach to collecting data. They provide the nurse with an overall understanding of each Patient.

PURPOSES

- To understand the physical and mental well-being of the patient.
- To detect disease in its early stage.
- To determine the cause and the extent of disease.
- To understand any changes in the condition of diseases, any improvement or regression.
- To determine the nature of the treatment or nursing care needed for the patient.
- To safeguard the patient and his/her family by noting the early signs especially in case of a communicable disease.
- To contribute to the medical research.
- To find out whether the person is medically fit or not for a particular task.

Equipment needs for full examination

For common use:

Instruments that must be with every student's bag:

- Stethoscope.
- Sphygmomanometer.
- Measuring tape.
- Tendon hammer.
- Thermometer.
- Pen-torch.
- Tuning fork.
- Disposable gloves.
- Lubricant gel.
- Cotton wool.
- Pin.
- Paracetamol, vinegar, sugar, salt for taste sensation.

For infrequent/rare use:

Following instruments are needed infrequently.

- Wooden spatula/tongue depressor.
- Magnifying glass.
- Accurate weight measuring scales.
- Heights measuring device.
- Ophthalmoscope.

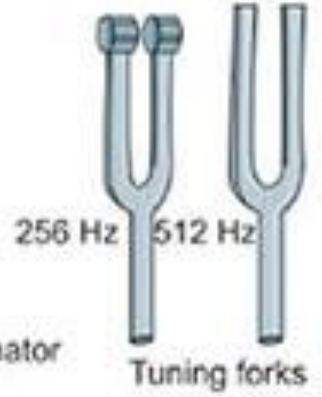
Articles Appropriate for Specific Examination:

- Eye: Torch, ophthalmoscope, snellen chart, wisp of cotton.
- Ear: Head mirror, light bulb fixed on the wall or a table lamp and a torch, a tuning fork.
- Nose: Nasal speculum, forceps, a head mirror, and a light bulb.
- Throat: Tongue depressor, a laryngeal mirror, a kidney tray, a paper bag, throat swabs in a container.
Torch gauze pieces in a bowl.
- Chest and abdomen: Stethoscope, tape measure.
- Vaginal: Sterile vaginal speculum, gloves, a kidney tray, a bowl with swabs (sterile), an antiseptic lotion.
- Rectal: Proctoscope, gloves, finger cots, a kidney tray, water-soluble jelly.
- Neurological: A percussion hammer, safety pins, a wisp of cotton with hot or cold water.



Ophthalmoscope

Transilluminator



256 Hz 512 Hz
Tuning forks



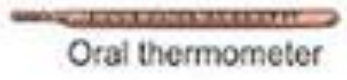
Schiotz tonometer



Cotton swabs



Snellen alphabet chart



Oral thermometer



Sphygmomanometer



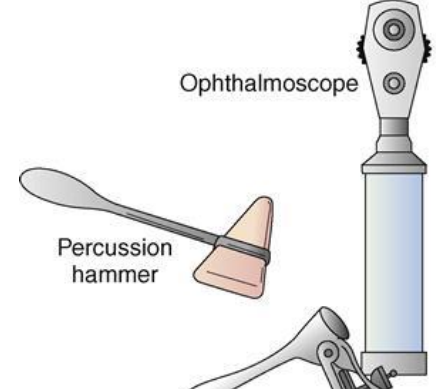
Stethoscope



Skinfold caliper



Percussion (reflex) hammer



Ophthalmoscope

Percussion hammer



Goniometer



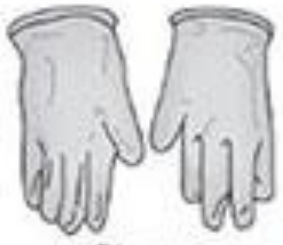
Penlight



Tape measure



Platform balance scale



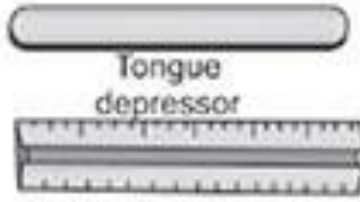
Gloves



Nasal speculum



Vaginal speculum



Tongue depressor

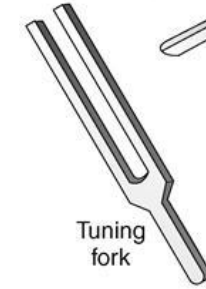
Ruler



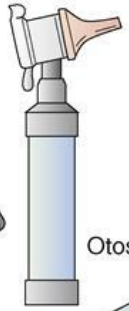
Safety pin



Percussion hammer



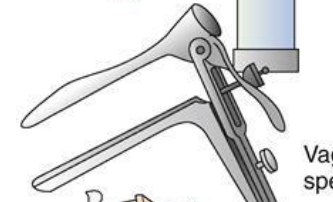
Tuning fork



Otoscope



Laryngeal mirror



Vaginal speculum



Nasal speculum

PREPARATION OF THE ENVIRONMENT:

- ❑ Maintenance of privacy.
- ❑ A separate examination room is needed.
- ❑ Keep the doors closed. The relatives are not allowed.
- ❑ Drape the patient according to the parts that are exposed.
- ❑ Lighting: As far as possible natural light should be available in the examination room, because if a patient is jaundiced, it may not be detected in the artificial light. There should be adequate lighting.
- ❑ Comfortable bed or examination table: The patient should be placed comfortably throughout the examination. There should be provision for the maintenance of a suitable position, e.g. a lithotomy position may be maintained when examining the genitalia. To maintain this position, a special examination table with stirrup rods is needed.
- ❑ The room should be warm and without draughts.

PREPARATION OF THE EQUIPMENTS:

All the articles needed for the physical examination are kept ready for the examination at hand.

- Sphygmomanometer
- Fetoscope
- Tongue depressor
- Laryngoscope measure
- Flashlight
- Ophthalmoscope
- Tuning fork
- Percussion hammer, safety pins
- Test tubes
- Protoscope
- Sterile specimen bottles, slides
- Stethoscope
- TPR Tray (To check temperature, pulse, respiration)
- Pharyngeal retractor
- Tape
- Weighing machine
- Otoscope
- Nasal speculum
- Cotton wool, cold and hot water
- Vaginal speculum
- Gloves
- Cotton applicators.

PREPARATION OF THE PATIENT

Physical Preparation:

- Keep the patient clean.
- Shave the part if necessary.
- Keep the patient in a comfortable position, which is convenient for the doctor to examine the patient.
- Empty the bladder prior to the examination. Empty the bowels by an enema if required.
- Loosen the garments and change into the hospital dress, if it is the custom.
- Drape the patient with extra sheets and expose only the need areas.
- Avoid unnecessary exposure.

Mental Preparation:

- The patient may be quite new to the hospital situation and patient may be anxious about his illness.
- Patient may have false ideas about the medical examination.
- It is the duty of the nurse to allay his patient's anxieties and fears by proper explanations.
- Explain the sequence of the procedure to gain his/ her confidence and cooperation.
- As far as possible a nurse should remain with a female patient during the physical examination.

NURSE'S RESPONSIBILITIES DURING PHYSICAL EXAMINATION:

- ❑ A separate examination room is needed. Keep the doors closed, screen the patient and provide privacy if he is not in a separate room. Relatives are not allowed.
- ❑ Drape the patient according to the parts that are to be examined. Natural light should be available in the examination room.
- ❑ There should be adequate lighting in the room. The patient should be comfortable throughout the examination. There must be provision for the maintenance of a suitable position, e.g. lithotomy position. The room should be warm.
- ❑ The nurse must stay in the room at all times, while the doctor examines a female patient.
- ❑ During the examination of a male patient's genitals, the nurse must leave the room. Take the patient's temperature, pulse, respiration and BP. if recent readings are not available.
- ❑ Give health teaching to the patient as need arises.

HEAD TO TOE EXAMINATION

The examination is carried out in an orderly manner focusing upon one area of the body at a time. The observation of the patient starts as the patient walks into the examination room, e.g. a limp may be noted as the patient walks in. The following observations are made:

General Appearance:

- Nourishment: Well-nourished or under-nourished.
- Body build: Thin or obese.
- Health: Healthy or unhealthy.
- Activity: Active or dull (tired).

Mental Status:

- Consciousness: Conscious, unconscious, delirious, talking incoherently.
- Look: Anxious or worried, depressed, etc.

Posture:

- Body curves: Lordosis, kyphosis, and scoliosis.
- Movement: Any limp.

Height and Weight:

- Ask to stand straight while measuring the height.
- Check the working condition of the instrument every time before use.

Skin Conditions:

- Color: Pallor, jaundice, cyanosis, flushing, etc.
- Texture: Dryness, flaking, wrinkling, or excessive moisture.
- Temperature: Warm, cold, and clammy.
- Lesions: Macules, papules, vesicles, wounds, etc.

Eye:

- Eyebrows: Normal or absent.
- Eyelids: Edema, lesions, ectropion, entropion.
- Conjunctiva: Pale, red, purulent.
- Cornea and iris: Irregularities and abrasions.
- Lens: Opaque or transparent.
- Eye muscles: Strabismus (squint).
- Vision: Normal, myopia, hypermetropia.

Head and Face:

- Shape of the skull and fontanel.
 - Skull circumference.
 - Scalp: Cleanliness, condition of the hair, dandruff, pediculi, infections like ringworm.
 - Face. Pale, flushed, puffiness, fatigue, pain, fear, anxiety, enlargement of parotid glands, etc.
-
- Eyelashes: Infection, sty.
 - Eyeballs: Sunken or protruded.
 - Sclera: Jaundiced.
 - Pupils: Dilated, constricted reaction to light.
 - Fundus. Congestion, hemorrhagic spots.

Ears:

- External ear-discharges, cerumen obstructing the ear passage.
- Tympanic membrane: Perforations, lesions, bulging.
- Hearing: Hearing acuity.

Mouth and Pharynx:

- Lips: Redness, swelling, crusts, cyanosis, angular stomatitis
- Odor of the mouth: Foul smelling.
- Teeth: Discoloration and dental caries.
- Mucus membrane and gums: Ulceration and bleeding, swelling pus formation.
- Tongue. Pale, dry, lesions, sords, furrows, tongue tie, etc.
- Throat and pharynx Enlarged tonsils, redness, and pus.

Nose:

- External nares: Crusts or discharges.
- Nostrils: Inflammation of the mucus membrane, septal deviations.

Neck:

- Lymph nodes: Enlarged, palpable.
- Thyroid gland: Enlarged.
- Range of motion: Flexion, extension, and rotation.

Chest:

- ❑ Thorax: Shape, symmetry of expansion, posture.
- ❑ Breath sounds: Sigh, swish, rustle, wheezing, rales, crepitations, pleural rub, etc.
- ❑ Heart: Size and location, cardiac murmurs.
- ❑ Breasts: Enlarged lymph nodes.

Abdomen:

- ❑ Observation: Skin rashes, scars, hernia, ascites dis tension, pregnancy, etc.
- ❑ Auscultation: Bowel sounds, fetal heart sounds.
- ❑ Palpation: Liver margin, palpable spleen, tenderness at the area of appendix, inguinal hernias.
- ❑ Percussion: Presence of gas, fluid or masses.

Extremities:

- Movement of joints, tremors, clumping of fingers, ankle edema, varicose veins, reflexes, etc.

Genital and Rectum:

- Inguinal lymph glands: Enlarged, palpable.
- Patency of urinary meatus and rectum (in infants).
- Descent of the testes.
- Vaginal discharges.
- Presence of sexually transmitted diseases.
- Hemorrhoids.
- Enlargement of the prostate gland.
- Pelvic masses.

Back:

- Spina bifida curves.

Neurological Tests:

- Coordination tests.
- Reflexes.
- Equilibrium tests.
- Tests for sensations.

Take Height and Weight:

- ❑ To measure the length of the baby who cannot stand, place the baby on a hard surface, with the soles of the feet supported in an upright position.
- ❑ The knees are extended and the measurement is taken from the soles of the feet to the vertex of the head.
- ❑ The head should be in such a position that the eyes are facing the ceiling.
- ❑ After a child can stand, the height can be measured, if the child with the heels back and head against a wall.
- ❑ A small flat board held from the top of the head to the wall, will give an accurate measure of the height that is the distance from the floor to the board.
- ❑ The weight of a person who can stand is generally measured by a standing scale.
- ❑ The patient stands on the platform and the weight is noted on the dial.
- ❑ Usually the weight is taken without shoes.
- ❑ To take the weight of the baby, a baby weighing scale is used, in which there is a container, where the baby can be laid.
- ❑ It is important to weigh a baby unclothed. If weighed with cloth then weigh the clothes separately and subtract this weight.

Measure the Skull Circumference:

- The skull is measured at its greatest diameter from above the eyes to the occipital protuberance.

Examination of the Eyes:

- The examination is done in lying or sitting position.
- The examiner frequently uses a head mirror that reflects light to the patient's face.
- The first examination is one of inspection to determine the movements of the eyes, reaction to light, accommodation to near and far objects.
- For detailed examination of the internal parts of the eye, an ophthalmoscope is used.

Examination of the Ears:

- The patient may be placed either in a lying or sitting position with the ear to be examined turned towards the examiner.
- Articles used for the examination are a head mirror, ear speculum of various sizes, cotton-tipped applicators and autoscope.
- Tuning fork is used to test the hearing ability.
- A child needs to be carefully restrained.
- Young children sit on their mother's lap with their legs restrained between the mother's knees and their arms held against their back.
- The mother then holds the child's head against the chest.
- Very small infants can be laid on the examination table.

Examination of the Nose, Throat and Mouth:

- ❑ The patient is usually seated with the head resting against the back of the chair.
- ❑ For the examination of the throat, a tongue depressor and a good light are needed.
- ❑ For examination of the nose, a nasal speculum and a head mirror are used. Sometimes the autoscope is also used.

Examination of the Neck:

- ❑ The neck needs to be palpated for lymph nodes. In order to assess the thyroid glands, the patient is asked to swallow saliva.

Examination of the Chest:

- While examining the anterior chest, the patient is placed in a horizontal recumbent position.
- The chest is examined in several ways.
- It is percussed to determine the presence of fluid or congested areas.
- The physician listens to the sound within the chest by means of a stethoscope.
- To examine the posterior chest, the patient is placed in a sitting position.
- The heart and lungs are examined by percussion and auscultation.
- The breasts are examined by palpation for the presence of lumps or growths.
- The axillae are palpated for enlarged lymph nodes.
- During the examination, the patient's face is turned away from the doctor.

Examination of the limbs:

- Extremities are inspected, palpated and moved.
- A fine tremor suggestive of hyperthyroidism can be observed, if the patient is asked to hold the arms out in front of him for a few minutes.

CARE AFTER EXAMINATION:

- Assist him to dress and help him to remain in a comfortable position in the bed.
- Aftercare of equipment: Wash the equipment with soap and water, rinse, dry and sterilize, as needed.
- Replace the equipments in their usual places. Label specimens properly and send them to the laboratory immediately.