**Medical terminology**

**Students will apply medical terminology.**

**Objective 1:** Identify and utilize anatomical positions, planes, and directional terms.

1. Demonstrate what anatomical position is and how it is used to reference the body.
2. Distinguish between the commonly used anatomical planes and recognize their individual views.
   1. Sagittal / Mid-sagittal Plane
   2. Frontal / Coronal Plane
   3. Transverse / Horizontal Plane
3. Apply directional terms to their location on the human body.
   1. Superior / Inferior
   2. Anterior / Posterior
   3. Medial / Lateral
   4. Distal / Proximal
   5. Superficial / Deep
   6. Ventral / Dorsal
   7. Prone / Supine
   8. Unilateral / Bilateral

**Objective 2:** Demonstrate body movements.

1. Compare and contrast the various movements of the body and their counter-movements.
   1. Flexion / Extension / Hyperextension
   2. Adduction / Abduction
   3. Pronation / Supination
   4. Retraction / Protraction
   5. Elevation / Depression
   6. Rotation / Circumduction
   7. External Rotation / Internal Rotation
   8. Lateral Flexion (side-bending left or right)
2. Compare and contrast the various movements of the foot /ankle and their counter-movements.
   1. Inversion / Eversion
   2. Dorsiflexion / Plantarflexion
   3. Pronation / Supination
3. Compare and contrast the lateral movements of the wrist/hand and their counter-movements.
   1. Radial Deviation / Ulnar Deviation
   2. Opposition

Extra Unit– MEDICAL TERMINOLOGY

Lecture Notes

1. **ANATOMICAL POSITION**
   1. Anatomical position is defined as standing erect, with the palms and feet facing forward.
   2. This position is the standard reference point in which all positions, movements, and planes are described.
2. **ANATOMICAL PLANES**
   1. Fixed lines of reference along which the body is often divided or sectioned to facilitate viewing of its structure.
   2. Studying the body from different views allows one to obtain a three-dimensional perspective.
   3. Planes
      1. **Sagittal Plane**
         1. The plane dividing the body into right and left portions.
         2. Mid-sagittal plane is when the body is divided into EQUAL right and left portions.
      2. **Frontal Plane**
         1. The plane dividing the body into front and back portions.
         2. Also called the Coronal plane.
      3. **Transverse Plane**
         1. The plane dividing the body into upper and lower portions.
         2. Also called the Horizontal plane.
3. **ANATOMICAL POSITIONS AND DIRECTIONS**
   1. Terms of position and direction describe the position of one body part relative to another, usually along one of the three major body planes.
   2. Terms
      1. **Superior** – refers to a structure being closer to the head or higher than another structure in the body.
      2. **Inferior** – refers to a structure being closer to the feet or lower than another structure in the body.
      3. **Anterior** – refers to a structure being more in front than another structure in the body.
      4. **Posterior** – refers to a structure being more in back than another structure in the body.
      5. **Medial** – refers to a structure being closer to the midline or median plane of the body than another structure of the body.
      6. **Lateral** – refers to a structure being farther away from the midline than another structure of the body.
      7. **Distal** – with reference to the extremities only, refers to a structure being further away from the root of the limb than another structure in that limb.
      8. **Proximal** - with reference to the extremities only, refers to a structure being closer to the root of the limb than another structure in that limb.
      9. **Superficial** – refers to a structure being closer to the surface of the body than another structure.
      10. **Deep** – refers to a structure being closer to the core of the body than another structure.
      11. **Ventral** – toward the front/belly.
      12. **Dorsal** – toward the back.
      13. **Prone** – lying face down.
      14. **Supine** – lying face up.
      15. **Unilateral** – pertaining to one side of the body.
      16. **Bilateral** – pertaining to both sides of the body.
4. **MOVEMENTS**
   1. Various movements of the body and their counter-movements.
      1. **Flexion** – bending at a joint or decreasing the angle between two bones.
      2. **Extension** – straightening a joint or increasing the angle between two bones.
      3. **Hyperextension** – excessive extension of the parts at a joint beyond anatomical position.
      4. **Adduction** – moving a body part toward the midline of the body.
      5. **Abduction** – moving a body part away from the midline of the body.
      6. **Pronation** – turning the arm or foot downward (palm or sole of the foot - down).
      7. **Supination** – turning the arm or foot upward (palm or sole of the foot - up).
      8. **Retraction** – moving a part backward.
      9. **Protraction** – moving a part forward.
      10. **Elevation** – raising a part.
      11. **Depression** – lowering a part.
      12. **Rotation** – turning on a single axis.
      13. **Circumduction** – tri-planar, circular motion at the hip or shoulder.
      14. **External Rotation** – rotation of the hip or shoulder away from the midline.
      15. **Internal Rotation** – rotation of the hip or shoulder toward the midline.
      16. **Lateral Flexion** – Side-bending left or right.
   2. Movements of the foot and their counter-movements.
      1. **Inversion** – turning the sole of the foot inward.
      2. **Eversion** – turning the sole of the foot outward.
      3. **Dorsiflexion** – ankle movement bringing the foot toward the shin.
      4. **Plantarflexion** – ankle movement pointing the foot downward.
   3. Movements of the wrist and thumb.
      1. **Radial Deviation** –Movement of the wrist towards the radius or lateral side.
      2. **Ulnar Deviation** –Movement of the wrist towards the ulna or medial side.
      3. **Opposition** – Movement of the thumb across the palm of the hand.