ANATOMICAL POSITION

• Provides a reference point for describing the structures of the body.
• In this position, the body is erect and the face forward. The feet are together, flat on the floor and the toes pointing forward. The arms are down at the sides with the palms turned forward with the thumb side of the hand away from the body.
CADAVERIC ANATOMY

• SYSTEMIC ANATOMY

• REGIONAL ANATOMY
LIVING ANATOMY

• SURFACE ANATOMY
• MEDICAL IMAGING
  - RADIOLOGICAL
  - CT SCAN
  - ULTRA SONOGRAPHY
  - MRI
  - NUCLEAR MEDICINE IMAGING
OTHER FIELDS

• COMPARATIVE ANATOMY
ANATOMICAL
POSITION

SUPINE
POSITION

PRONE
POSITION

RECUMBENT
POSITION

LITHOTOMY
POSITION
ANATOMICAL PLANES

- MEDIAN OR MID SAGGITAL
- SAGGITAL
- CORONAL OR FRONTAL
- TRANSVERSE
- HORIZONTAL
- OBLIQUE
MEDIAN/ MIDSAGITTAL PLANE
TERMS OF RELATION- GROSS

- ANTERIOR
- POSTERIOR
- SUPERIOR
- INFERIOR
- MEDIAL
- LATERAL
TERMS OF RELATION –
EMBRYOLOGY/COMPARATIVE

• VENTRAL
• DORSAL
• CRANIAL OR ROSTRAL
• CAUDAL
TERMS-LIMBS

- PROXIMAL
- DISTAL
- RADIAL OR TIBIAL OR PREAXIAL BORDER
- ULNAR OR FIBULAR OR POSTAXIAL BORDER
- FLEXOR OR PALMAR/PLANTAR/VOLAR SURFACE
- EXTENSOR OR DORSAL SURFACE
TERMS – HOLLOW ORGANS

- INTERIOR
- EXTERIOR
- INVAGINATION
- EVAGINATION
TERMS-SOLID ORGANS

• SUPERFICIAL
• DEEP
TERMS-INDICATE SIDE

- IPSILATERAL
- CONTRALATERAL
- FLEXION
- EXTENSION
- ADDUCTION
- ABDUCTION
- MEDIAL ROTATION
- LATERAL ROTATION
- CIRCUMDUCTION
PROTRACTION
RETRACTION

Retraction

Protraction

Shoulder
Humerus
Clavicle
PRONATION
SUPINATION
Flexion

Extension

Dorsiflexion

Plantarflexion
STRUCTURES MET IN DISSECTION

- SKIN
- SUPERFICIAL FASCIA
- DEEP FASCIA
- MUSCLES
- BLOOD VESSELES
- NERVES
- BONES & JOINTS
Lining and Covering Epithelial Tissues

Method of Classification
- Classification by number of layers
  - Simple epithelium
    1. One cell layer thick
    2. All cells rest on the basement membrane (basal surface) and all cells face the free surface.
  - Stratified epithelium
    1. More than one cell layer thick.
    2. Only the deepest layer of cells contact the basement membrane and only the superficial-most cells have a free surface.
    3. Named according to the shape of the cells at the free surface omit.
- Classification by shape of surface cells
  - Squamous
    1. Cells are much wider than tall, resembling a “fried egg.”
    2. Nucleus is highly flattened.
  - Cuboidal
    1. Cells are of equal height and width.
    2. Nucleus is spherical.
  - Columnar
    1. Cells are much taller than they are wide.
    2. Nucleus is oval shaped, generally located toward the base of the cell.
Types of Lining and Covering Epithelium

➢ Simple epithelial tissues
  • *Simple squamous*
    1. Allows for rapid diffusion across the epithelium.
    2. Forms the lining of blood vessels, alveoli of the lungs, and internal body cavities
  • *Simple columnar*
    1. Lines and absorbs
    2. Forms the lining of the intestines and gall bladder
  • *Pseudostratified*
    1. Cells are of various heights. All cells rest on the basement membrane, but only the tallest cells reach the free surface. Variation in height of the cells and the location of nuclei give the appearance of a stratified epithelium. Frequently ciliated.
    2. Provides protection
    3. Forms the lining of much of the respiratory tract and much of the male reproductive system
- Stratified epithelial tissues
  - *Stratified squamous*
    - Protects from physical abrasion and prevents desiccation
  - Types
    1. Nonkeratinized (moist). *Lining of wet cavities, including the mouth, esophagus, rectum, and anal canal; surface cells are nucleated and living.*
    2. Keratinized (dry). *Epidermis of the skin; surface cells are nonliving.*
  - *Stratified cuboidal/columnar.* *Lines the larger ducts of exocrine glands.*
  - *Transitional*
    1. Protective function; constructed to expand with distension of the hollow organs it lines
    2. Unique to the urinary system; lines the urinary bladder and ureter