

# **GROSS ANATOMY** (Greek: *Ana*~up; *Tome*~cutting):

## **Associated -ologies:**

Histology	- Microscopic anatomy
Cytology	- Cellular anatomy
Gross	- Macroscopic anatomy
Embryology	- Developmental anatomy
Teratology	- Disorders during development
Pathology	- Disease (natural & environmental)

## **Problems with nomenclature:**

- Common names (knee cap, cheek bone)
- Eponyms (named after someone)
  - Wharton's* duct = "submandibular duct"
  - Adams* apple = expansion of the Thyroid cartilage
  - Canal of *Schlemm* = scleral venous sinus

## **Latin & Greek** word-roots

- Hippocrates (400 BC Greece) Disease is natural
- Aristotle (310 BC Greece) Humans are animals
- Galen (170 AD Greek in Rome) Surgeon
- Andreas Vesalius (1540) *De Humani Corporis Fabrica*

## **Reading Assignment:**

*Appendix: Foreign word roots...*

## **Regional v. Systemic anatomy:**

- Integumentary system
- Skeletal / Muscular system
- Nervous system/ Endocrine system
- Cardiovascular / Lymphatic system
- Respiratory system
- Gastrointestinal / Digestive system
- Urogenital (urinary + reproductive) system

## **Anatomical position:**

- *Humans*: body is erect, head faces front, arms against body, palms face forward, toes point forward
- *Quadruped*: body stands on all four legs, toes pointing forward, head faces front, tail/neck outstretched

## **Anatomical planes:**

- *Mid-sagittal*: divides body into equal R/L halves
- *Para-sagittal*: divides body into R/L portions
- *Coronal (frontal)*: divides body into ant./post. portions
- *Transverse (cross)*: divides body into sup./inf. portions

## **Directional terms:**

*Superior* - Above [*Cranial* - toward head]

*Inferior* - Below [*Caudal* - toward tail]

*Anterior* - Front [*Ventral* - away from backbone]

*Posterior* - Back [*Dorsal* - toward backbone]

*Medial* - toward the midline of the body

*Lateral* - away from the midline of the body

*Proximal* - closer to the reference point

*Distal* - distant to the reference point

*R. & L.* - refer to the subjects right/left (not yours!)

**BODY CAVITIES:** protect organs and restrict organ motion

**Thoracic cavity**

- Pleural cavity = lungs (2)
- Pericardial cavity = heart
- Mediastinum = trachea, esophagus, thymus, aorta

**Dorsal cavity**

- Cranial (Brain) + Spinal (Brainstem & spinal cord)

**Abdomino-pelvic cavity (4 quadrant version)**

Left-upper: pancreas, kidney, spleen, gut/stomach, liver

Right-upper: liver & gall bladder, kidney, gut

Left-lower: gut, ureter, (ovary, uterus & bladder)

Right-lower: gut, ureter, (ovary, uterus & bladder)

**Abdomino-pelvic cavity (9 region version)**

L. Hypochondriac	Epigastric	R. Hypochondriac
L. Lumbar	Umbilical	R. Lumbar
L. Iliac	Hypogastric	R. Iliac