Basic Sciences

principles of physiology
Surface Anatomy

AKA - topographical anatomy
Anatomical position
The Planes of the Body

- Anterior
- Posterior
- Midaxillar
- Midline
- Midclavicular line
Directional Terms

- Right and left
- Superior and inferior
- Lateral and medial
- Proximal and distal
- Superficial and deep
- Anterior and posterior
- Palmar and plantar
- Unilateral and bilateral
- Apices
Review of degrees

- 360
- 90
- 45
patient positions

SUPINE

PRONE
patient positions

High Fowlers

Semi Fowlers
patient positions

Left lateral or recovery position

Shock position
patient positions

Trendelenburg

Reverse Trendelenburg
Fluid Compartments

- **Intravascular**
  - determines blood pressure & perfusion

- **Interstitial**

- **Intracellular**
osmosis & diffusion

- osmosis = how fluid travels between compartments
- diffusion = how gases are exchanged
electrolytes

- sodium (Na) - we are saline solutions
- potassium (K) - for electrical function
- Calcium (Ca) - muscle function
- Bicarbonate (HCO3) - base buffer
homeostasis

- activity required to maintain balance between all body systems.
atmosphere

- oxygen - 21%
- nitrogen - 78%
- other - 1%
Any Questions?