

Bones and Skeletal Tissues (Chapter 6)

- I. Functions of bones
- II. Classification of bones
 - A. Long
 - B. Short
 - C. Flat
 - D. Irregular
 - E. Sesamoid
- III. Gross Anatomy
 - A. Markings
 - 1. projections
 - 2. depressions & openings
 - 3. articular surfaces
 - B. Types of Bone tissue
 - 1. Compact
 - 2. Spongy
 - a. trabeculae
 - C. Structure of a Typical Long bone
 - 1. diaphysis
 - 2. epiphyses
 - 3. articular cartilage
 - 4. periosteum
 - 5. medullary cavity
 - a. yellow marrow
 - b. red marrow
 - 6. endosteum
- IV. Microscopic Anatomy
 - A. Compact bone
 - 1. osteon
 - a. lamella
 - 2. central (Haversian) canal
 - 3. perforating (Volkmann's) canals
 - 4. canaliculi
 - 5. lacunae
 - 6. osteocytes
 - B. spongy Bone
- V. Bone Development
 - A. Cells
 - 1. osteogenic cell
 - 2. osteoblasts
 - 3. osteocytes
 - 4. osteoclasts
 - 5. chondrocytes
 - B. Ossification
 - 1. Intramembranous Ossification
 - a. ossification center
 - 1) osteoid
 - 2. Endochondral Ossification
 - a. perichondrium
 - b. primary ossification center
 - c. secondary ossification center
 - d. epiphyseal plate
 - 1) proliferating zone
 - 2) closure of the epiphyses
 - a) epiphyseal line

- 3.modeling
- VI.Remodeling
- VII.Bone Repair
 - A. fracture hematoma
 - B. internal callus
 - C. external callus