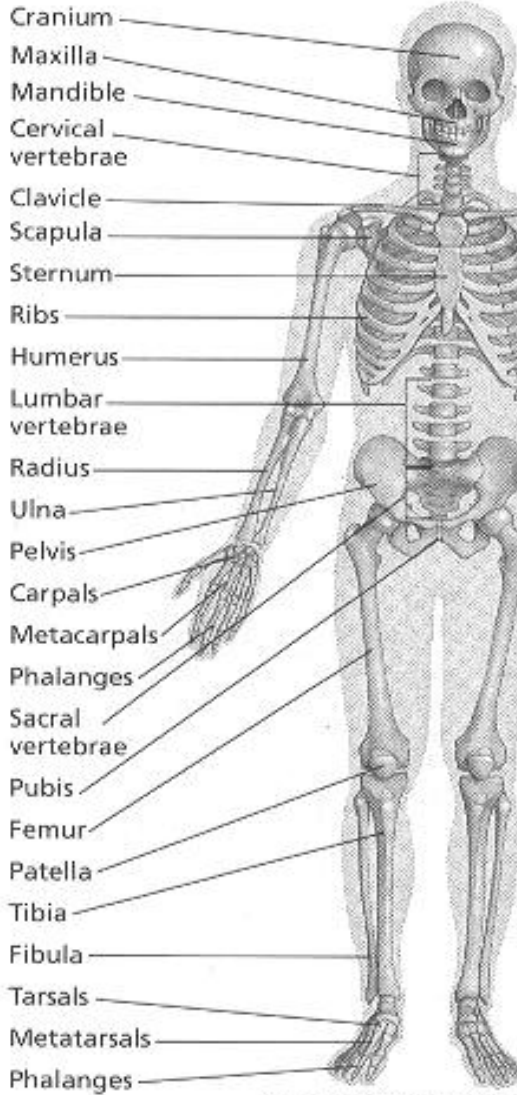


Bones, Muscles & Skin

The Skeletal System



(a) HUMAN SKELETON

• Function

- Support
- Protection
- Movement

• Structure

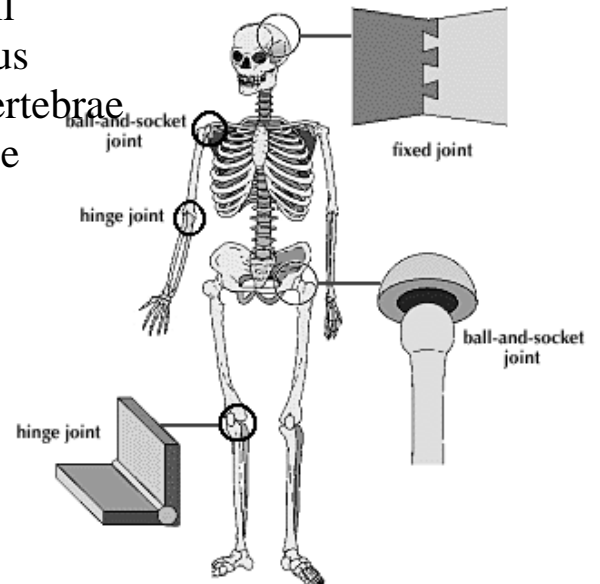
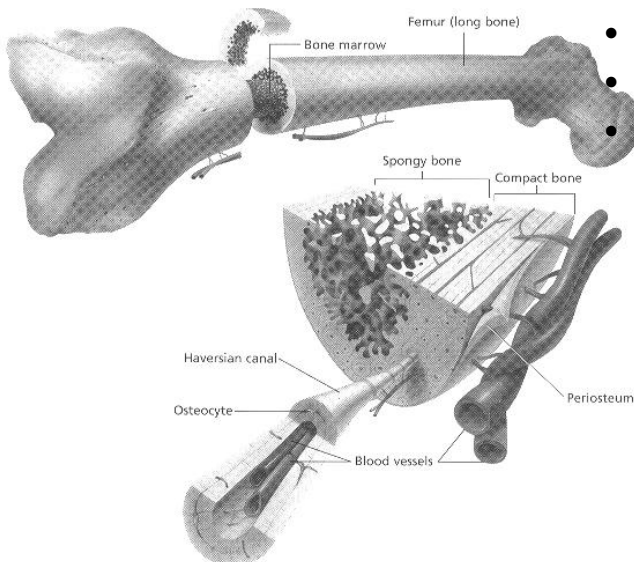
- Periosteum –outer bone membrane
- Compact bone
- Spongy bone
- Marrow cavity
 - Filled with fatty tissue called marrow
 - Makes red blood cells in flat bones

• Cartilage

- Rubbery tissue
- Function
 - Cushion Joints
 - Turns into bone
 - Supports tissue and other bone
- Ligaments - hold bones together

• Types of joints

- Ball and socket – shoulder
- Fixed – skull
- Pivot – radius
- Gliding – vertebrae
- Hinge – knee





• The Muscular System

- There 630 active muscles in your body.
- Muscles are bundles of cells and fibers.
- Muscles tighten up, and then they relax.
- Half our weight is muscle
- Muscles work in a very simple way. All they do is tighten up and relax
- Types of muscles
 - Voluntary muscles
 - Ones that you consciously control
 - Involuntary muscles
 - Can't consciously control
- Three types of muscle tissue
 - Skeletal (striated) - moves skeleton
 - Smooth (nonstriated) – intestines
 - Cardiac (striated) – heart
- Muscle Use and Development
 - Apposing pairs
 - Get stronger by use

• Skin

• Layers

– Epidermis – outer layer

- Gives skin color
- Protects the dermis

– Dermis

- Alive
- Contains sweat glands, hair follicles, blood vessels, oil glands, muscles

– Hypodermis

- Fat tissue under the dermis

• Function of the skin

- Protection
- Excretion
- Cooling (Temperature)
- Formation of vitamin D
- Sensory organ