CHAPTER:

DATE:

Week 3 Lesson 6-4

KEY CONCEPTS

FOR NEXT CLASS

LECTURE NOTES

Cervical vertebrae
- C1 - C7

Thoracic vertebrae
- T1 - T12

Lumbar vertebrae
- L1 - L5

> 24 total

Coccyx is under the sacrum

↓

Tailbone

Appendicular Skeleton

The appendicular skeleton consists of the bones of the appendages (limbs).
- Arms & hands
- Legs and feet
- pectoral gridles (shoulders)
- Pelvic gridles (hips)

Pectoral Girdle | Shoulders
- Clavicals - S shaped thin collarbones connect each scapula with the Sternum
- Scapulae - shoulder blades are flat, triangular bones located on the back of the rib cage and held in place by strong muscles.

↓ connects to the sternum

Arms
- Arms have 3 main bones in addition to the bones that form the wrist and hand.
  - 1 upper long bone (humerus)
  - 2 forearm bones (radius & ulna)
- Radius - lateral side (thumb side)
- Ulna - medial side and forms the elbow joint together with the humerus.

Wrist
- Carpal bones - cube shaped bones of the wrist.
  - Carpal means "pertaining to the wrist".
- There are 8 carpal bones arranged in two rows of 4, forming the carpal
- Narrow space through which the median nerve & the tendons of the fingers pass.
- Carpal Tunnel Syndome: Pressure on the median nerve that passes thru CT space.
  Symptons: Inflammation & Swelling, Pain, burning, numbness in the thumb, index and middle fn r.

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Hands

- metacarpal bones - Five bones in the palm of the hand
- Phalanges - Finger bones
  - phalanx - singular
- Each finger is made of 3 small bones > Thumb only has 2 bones
  - Proximal
  - middle
  - Distol

Pelvic Girdle | hips

- Pelvic girdle | hip girdle - protects the pelvic organs, such as urinary bladder & uterus
- Pelvic consists of
  - 2 hip bones (coxal bones)
    Bony Pelvis
    - sacrum
    - Coccyx (tailbone)
- Each hip bone consists of 3 fussed bones
  - illium - Forms upper part of hip bone
  - Ischium - Forms the lower part of hip bone
  - Pubis / pubic bone
- Acetabulum (hip socket) - deep indention at the center of the hip.

Legs

- Femur (thigh bone)
  Largest, longest, and strongest bone in the body.
- Head of femur
  upper end articulates or connects with the acetabulum to form the hip joint.
- Patella (knee cap)

2 lower legs

- Tibia (shin bone) carries all the weight
- Fibula lateral side of the leg, much thinner, non-weight bearing bone

Ankle

- Tarsal bone
  - 7 tarsal bones in the foot which are similiar to, but stronger than, carpal bones of the wrist.
    - calcaneus (heel bone) biggest strongest tarsal, attachment for Achilles Tendon
    - Talus (ankle bone
    - metatarsal bones
    - Hallux (big toe)

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KEY CONCEPTS

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LECTURE NOTES

There are 3 major types of joints in the human body.
- immovable
- Slightly moveable
- freely moveable

Joints
- meeting of 2 or more bones
- Articulation
- Three major types
  - Diarthrotic - freely moveable
  - Amphiarthrotic - Slightly moveable
  - Synarthrotic - immoveable

majority of joints
- Freely moveable
- Synovial joints
  - Fluid-Filled Cavity
  - Provides lubrication

Ball & Socket
- Freely moveable
- Ball shaped → Socket shape
- Shoulder → humerus → Scapula
- Hip → Femur → pelvis
- Allows wide range of motion
- Can move in various directions

Hinge Joints
- Freely moveable
- Bones of elbows
- Bones of knees
- Allows back & forth movement
- moves in one direction
- Knee joint - modified hinge allows rotation

Amphiathrotic Joints
- Slightly moveable
- Vertebral bones
- Connect with cartilage

Synarthrotic joints
- Immoveable
- Between skull bones
- Sutures
- Connected with fibrous tissue