VERTEBRAL COLUMN
- Consists of 26 bones
- Extends from the skull to the pelvis
- Four curvatures: purpose is to increase the strength and resilience of the column
  - Thoracic & sacral curvatures - present at birth
  - Cervical curvature - develops when infants hold up their heads
  - Lumbar curvature - develops when infants begin to walk and stand
Abnormal Curvatures

- **Kyphosis** - hunchback
  - Increased roundness of the thoracic curvature

- **Lordosis** - swayback
  - Exaggerated lumbar curve
  - Seen in pregnant women

- **Scoliosis** - abnormal side to side curvature
General Structure of Vertebra

- Body - thick anterior weight bearing portion

- Vertebral foramen - large central opening
  - Makes a canal that contains the spinal cord

- Transverse process - projects laterally from the vertebra

- Spinous process - posterior midline
  - Places for muscle attachment
  - Felt as bony projections along midline of the back
Cervical Vertebrae (C1-C7)

- Have bifid (forked) spinous process

- Atlas - C1
  - Has no body, no spinous process, short transverse process
  - A “ring” that articulates with occipital condyles of the skull
  - Allows you to nod “yes”

- Axis - C2
  - Has a dens that projects upwards from the body like a tooth to act as a pivot for rotation
  - Lets you rotate head side to side (“no”)


Thoracic Vertebrae (T1-T12)

- Have long, pointed spinous processes
- Have facets on the body and transverse process for articulation with the ribs
Lumbar Vertebrae (L1-L5)

- Have large, heavy bodies to support most of body weight
- Short, blunt spinous processes
Intervertebral discs

- Pads of fibrocartilage that separate the vertebrae
- Act as "shock absorbers"
- Allow vertebral column to bend
- **Sacrum**
  - Triangular bone, just below lumbar vertebrae
  - Five separate bones that fuse into one

- **Coccyx**
  - Tailbone
  - Four separate bones that fuse into one