Vertebral Column

- General Characteristics
- The vertebral column consists of 33 vertebrae (7 cervical, 12 thoracic, 5 lumbar, 5 fused sacral, and 4 fused coccygeal vertebrae).
A Jefferson fracture is a burst fracture of the atlas, often caused by a blow to the top of the head.
• The “hangman” fracture, a pedicle fracture of the axis, can be stabilized, if subject survives, with or without spinal cord damage.

• Hangman's fracture may occur as a result of judicial hanging or automobile accidents. In this fracture, the cruciform ligament is torn and the spinal cord maybe crushed, causing
Spondylitis (ankylosing or rheumatoid spondylitis)

• Involves inflammation of the joints between the vertebrae and sacroiliac joints.

• **Ankylosing spondylitis** is a form of chronic inflammatory arthritis, the most common of which is rheumatoid arthritis, and causes pain, stiffness, swelling, and limited motion in the (lower) back.

• It causes the **affected vertebrae to fuse or grow together**, resulting in a rigid spine (bamboo spine), poor posture, and deformities. Pain and
A herniated (slipped) disk

- It is a **protrusion of the nucleus pulposus** through the **annulus fibrosus** of the intervertebral disk into the intervertebral foramen or into the vertebral canal, compressing the spinal nerve root.

- It **commonly occurs posterolaterally** where the annulus fibrosus is not reinforced by the posterior longitudinal ligament and frequently affects the lumbar region.
Sciatica:

- It is characterized by pain radiating from the back into the buttock and into the lower limb and is most commonly caused by herniation of a lower lumbar intervertebral disk.