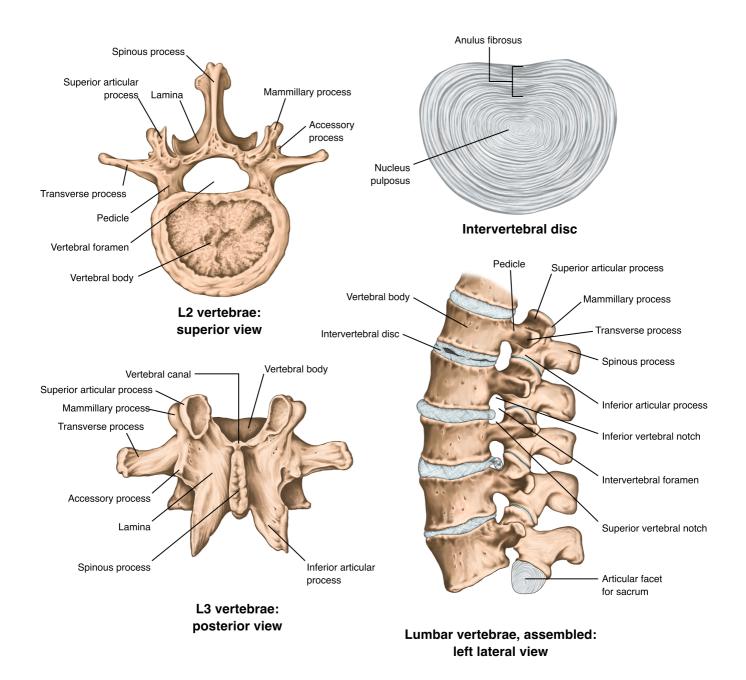
## Lumbar Spine Anatomy Diagram



The lumbar vertebrae provide crucial support for the upper two sections of the vertebral column—the cervical and thoracic vertebrae—and the head. Comprising five vertebrae labeled L1 to L5, they play a key role in stabilizing and supporting the upper body while also protecting the spinal cord and nerves that pass through them.

- Accessory process: This is a small projection located on the back of each lumbar vertebra that also serves as an attachment site for muscles and ligaments involved in stabilizing the spine.
- **Annulus fibrosus:** This is the tough, outer layer of the intervertebral disc that surrounds and protects the nucleus pulposus.
- Articular facet for sacrum: These are small, flat surfaces located on the sides of the sacrum that articulate with the ilium bones of the pelvis to form the sacroiliac joints. These joints allow for movement and stability in the pelvic region.

- Intervertebral discs: These are soft tissues located between adjacent vertebral bodies that act as shock absorbers and allow for flexibility and movement in the spine. They consist of a tough outer layer called the annulus fibrosus and a gel-like inner core called the nucleus pulposus.
- **Mammillary process:** This is a small projection located on the back of each lumbar vertebra that serves as an attachment site for muscles and ligaments involved in stabilizing the spine.
- **Pedicles and laminae:** These are bony structures that make up the vertebral arch and provide protection for the spinal cord. The pedicles form the sides of the arch, while the laminae make up the roof.
- **Spinous process:** This is a bony protrusion located at the back of each lumbar vertebra. It serves as an attachment site for muscles and ligaments involved in stabilizing and moving the spine.
- **Superior and inferior articular processes:** These are small, bony surfaces located on the sides of each vertebra that help to form the joints between adjacent vertebrae. They allow for smooth movement and stability in the spine.
- **Transverse processes:** These are two bony projections on either side of each lumbar vertebra that serve as attachment points for muscles and ligaments involved in the side-to-side movement of the spine.
- Vertebral canal: This is the central space within the vertebral column that houses and protects the spinal cord.
- Vertebral foramen: This is the opening in each vertebra through which the spinal cord passes.
- Vertebral body and vertebral arch: Each lumbar vertebra consists of a vertebral body and vertebral arch, which together form the central portion of the spine. The vertebral body contains spongy bone tissue that supports the upper body's weight and helps absorb shock from movement. The vertebral arch surrounds and protects the spinal cord, as well as provides attachment points for muscles and ligaments.
- **Nucleus pulposus:** This is a jelly-like substance within the intervertebral discs that helps absorb shock and cushion between adjacent vertebrae.

**Reference:** Ombregt, L. Applied Anatomy of the Lumbar Spine. Chapter 31 In: A System of Orthopaedic Medicine. Elsevier, 2013.