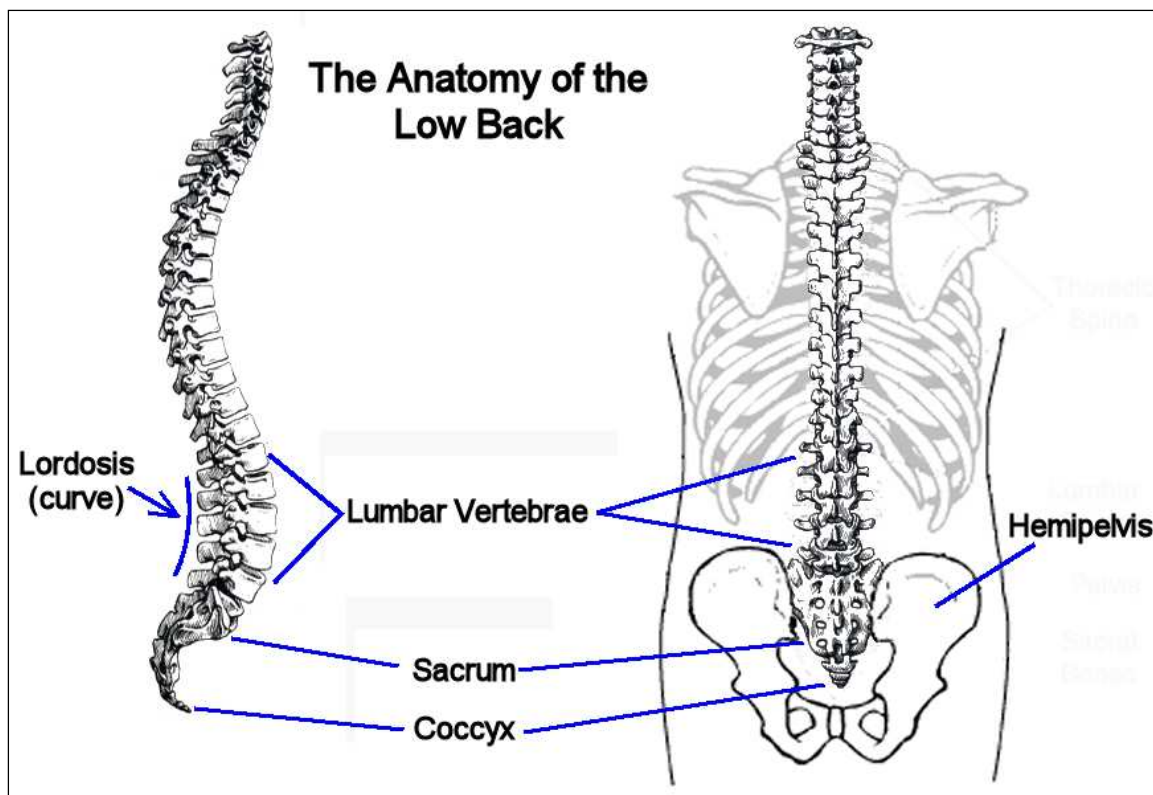


Basic Anatomy of the Low Back: Bones and Joints

The low back is called the **lumbar** region and is associated with the pelvis. The skeleton of the lower back has 5 bones called **vertebrae** (vertebra for singular), the sacrum, tailbone and the bones of the pelvis. In the adult the vertebrae form a normal natural curve inwards towards the front of the body. This curve is called a **lordosis**, and allows the spine to absorb impact like a spring. The nerves exiting between the vertebrae pass through spaces called **intervertebral foramina** (foramen for singular). These nerves as well as those from the sacrum allow the central nervous system to communicate with the legs, feet and organs of the abdomen and pelvis. Numerous muscles (not shown) must maintain a healthy balance to keep normal posture and to properly move and stabilize the low back.



The Low Back and Pelvis

Vertebrae – the major bones that make up the spine (see page 2)

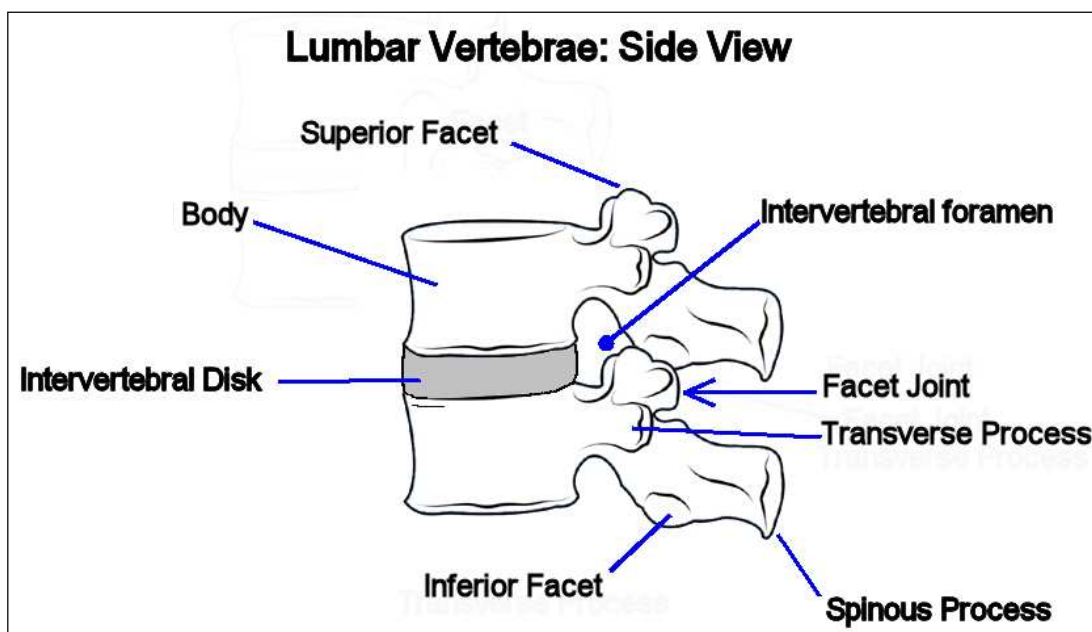
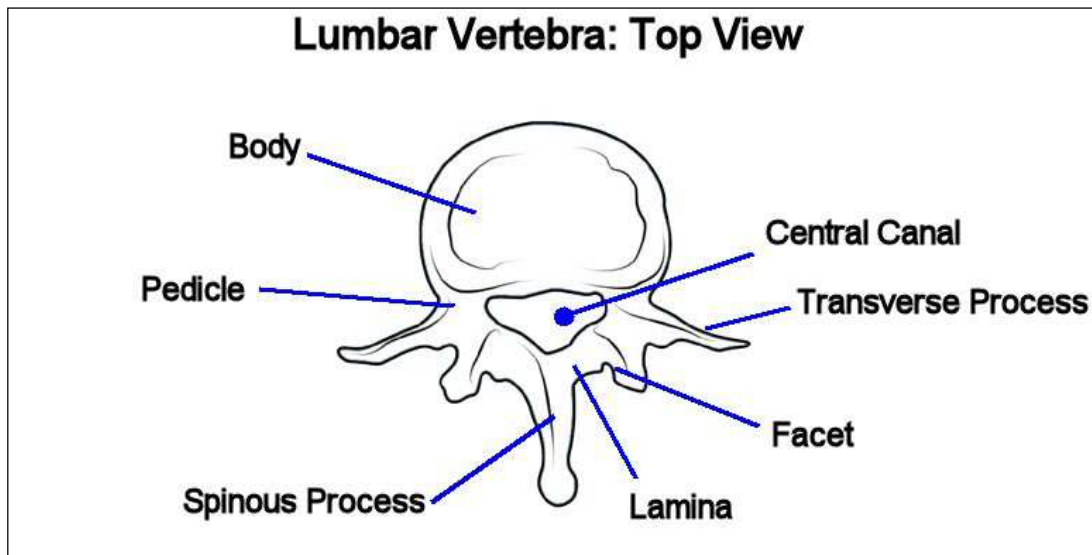
Sacrum – a triangular shape bone at the bottom of the spine; allows attachment of muscles that support the internal organs, as well as others that move the hip

Coccyx - the rudimentary tailbone at the tip of the sacrum

Hemipelvis or **Os Coxa** – a pair of irregularly shaped bones that together with the sacrum form the pelvis; transmits the weight of the trunk to the legs

Sacroiliac joint (SI joints) - attach the sacrum to the hemipelvis; provides subtle movements that are important during standing, walking and running

Sacrococcygeal Joint – the joint of the sacrum and coccyx



The Anatomy of the Vertebrae

Body - a block of bone that supports most of the weight; plays a role in absorbing impact

Central canal or Neural canal - a space which holds the nerves from the spinal cord

Pedicle – a support that connects the posterior parts of the vertebra to the body

Lamina – flat shaped portion that protects the back of the central canal; two laminae join to form the spinous process of the vertebra

Spinous process - a bony projection at the back of the vertebra; can be felt through the skin

Transverse processes - bony projections out the sides of the vertebra; allow attachment of muscles

Facet - a structure that connects the vertebra above to the one below it

Facet joints - join one vertebra to another, their orientation determines which movements are possible for each vertebra, plays a minor role in supporting the weight

Intervertebral disk (IVD) - attaches the vertebral bodies together, is flexible to allow movement, plays a role in absorbing impact, the outer portion has layers of fibrous bands, the inner portion is gelatinous