

## Anatomy of the Back

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The normal anatomy of the spine is divided into three regions. Each region is made up of individual bones referred to as vertebrae. The upper region is referred to as the cervical region and usually consists of seven vertebrae. The middle region is referred to as the thoracic spine and is made up of 12 vertebrae. Finally, the lower region is known as the lumbar spine and is made up of 5 vertebrae. Beneath the lumbar spine is a fused bone known as the sacrum. Attached to the sacrum is another fused bone known as the coccyx, or the tailbone.

The spine is vitally important because it provides both stability and flexibility, while protecting the spinal cord. Many people will experience some form of back pain in their lifetime, so knowledge of the anatomy is important in understanding where your pain is coming from.

Each vertebra can be divided further into individual parts. The body of the vertebra provides the weight-bearing area of the spine. Vertebrae have holes in them known as the spinal canal, which allows the spinal cord to pass down the spine. They also consist of spinous processes, which are the “bumps” that you can feel when you run your hands down your back. Transverse processes are oriented 90 degrees to the spinous processes and provide a place for muscles to attach. The vertebrae also come together at facet joints, giving further stability to the spine.

The vertebrae are separated by intervertebral discs, which act as cushions between the bones. The disc can be further separated into the outer fibrous ring (annulus fibrosis) and the inner “watery” centre, called the nucleus pulposus. When a disc protrudes out, or herniates, this can cause pain in the back and legs.

Your doctor uses his or her knowledge of the anatomy of the spine, your symptoms, your physical examination, and occasionally further investigations to diagnose which part of your back is causing the problem. Then an appropriate treatment plan can be instituted so you are able to return to the activities you enjoy!