

## YOUR SPINE & NERVOUS SYSTEM



The human spinal column is an engineering marvel; intricate and complex. It provides flexibility, support, and protection.

The spine is composed of 25 moveable bones (vertebrae), separated by 24 intervertebral discs, that help support the weight of the body.

Ligaments hold the spine together and allow the spine to bend and twist. Countless muscles control spinal movement and help maintain an upright posture while standing or sitting.

The spinal column also protects a bundle of nerves that makes up the spinal cord. These spinal nerves, which pass through openings in the vertebrae, form a communication network between the brain and the rest of the body.

The nervous system controls most of the activities in the body to help maintain a constant state of health. To control these activities, billions of nerves transmit signals back and forth between the brain and other parts of the body.

The brain receives signals, which inform it about the constantly changing chemical and physical conditions inside the body. Then the brain responds by sending signals, which regulate activities such as gland secretion and muscle contraction, to help the body adapt to the changing conditions and remain healthy.

Sometimes the body is unable to adapt to conditions that are physically, chemically or emotionally stressful. Sudden or repetitive movements, as well as poor posture can cause physical stress. Chemical stress can be caused by nutritional deficiencies or toxic substances in the food we eat, water we drink and air we breathe. Recurring depression or anxiety can be emotionally stressful.

Basically, stress can excite or inhibit the transmission of nerve signals, and alter the regulation of body functions. This can interfere with the body's ability to restore and preserve health, and can lead to illness or injury.

***The complexity of the spine requires the care of a chiropractic physician who is experienced in spinal neurology & biomechanics.***