

**L**ow back pain is a leading cause of disability on a global level. Two-thirds of the population will experience low back pain at some point in their lives and it is a primary cause of missed work. The low back is the foundation of the body and is the starting point for good upright posture. Posture is intertwined with multiple systems, its efficiencies and its pains.

Posture has a major role in overall body health and wellness. Good posture allows for proper balance, function and efficiency in motion. Poor posture can lead to imbalance, dysfunction, inappropriate movement strategies and pain. People at work exhibit poor posture from long hours on the job, lack of attendance to their posture and a disproportion of body size to work station. Another reason for poor posture is the fact that work can be stressful and either sedentary or dynamic. That work equates to long hours of sitting or running around and both can fatigue the system. ***All a recipe for success, if you are referring to the classic forward head, forward shoulder, rounded back posture.***

Success in this case is a predisposition for poor posture leading to pain in remote areas.

The human body was built for structure and movement. The musculoskeletal system provides the framework. It allows for support, efficiency and generation of movement and power.

Functional movement starts deep in the central nervous system (brain and spinal cord) and nerves as they exit through openings between bones or along bones. These nerves convey messages from the brain to the appropriate tissues (muscles, tendons, ligaments, and fascia).



Normal alignment and neuromuscular communication yields proper movement strategies, efficiency of energy expenditure, normal organ system function and functional patterns without pain.

Poor posture can affect the musculoskeletal system as well as the visceral system. On a deeper level, it can affect your breath, energy, sleep, digestion and other organ functions. Poor posture puts the musculoskeletal system in an inappropriate position where neuromuscular communication is compromised. This leads to structures being compressed or stretched due to the malalignment of the joints. The nerves of the extremities exit the spinal cord through small openings called foramen. If the spine sits in a position that reduces the space available for the nerve, it can cause a nerve root irritation.

The foramen are small openings on the side of the spinal column that allow the nerves to exist, but they do not infringe upon the nerve itself. Any reduction in foraminal space increases the chances of the nerve being irritated.

Nerve irritation can cause pain locally where the nerve root exists as well as along the path in which the nerve travels (radiculopathy). In the neck, that could mean pain in the neck, upper middle back, shoulders and down to the fingers. In the low back, that could mean pain in the low back, calf, shin, or pain in the buttock traveling down the leg into the toes. Continuous slouching or bending forward with improper mechanics can lead to this type of structural irritation and subsequent pain and dysfunction. This then leads to compensatory movement patterns.