

What do I need to know about posture?

Functional neutral posture is when the ears, shoulders, hips, and ankles are in a straight line from a side view. From a posterior (rear) view the spine should be straight. Shoulder and hip height, line on back of knees, and inner ankle bones should be level and symmetrical. Weight should be distributed evenly through the feet while standing and through the hips when sitting.

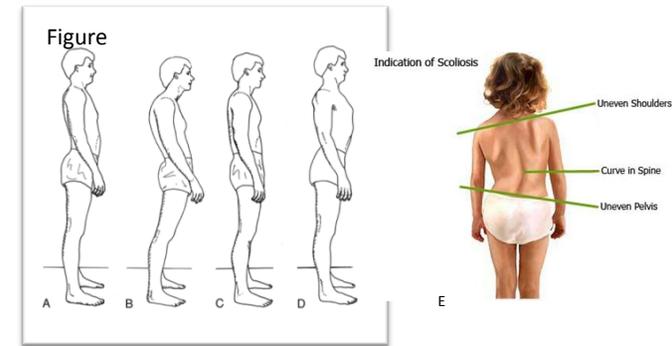
Ideal back posture is having a functional neutral spine with the appropriate amount of normal, natural curvatures. When the ears are in front of the shoulders this is referred to as forward head posture, which causes excess strain on the cervical musculature resulting in neck pain or other symptoms (such as migraines). The spine should look like an “S” shape; the thoracic region (upper back) has a rounded curvature while the lumbar region (lower back) has a natural inward curvature. When the thoracic region is excessively rounded and/or lumbar region excessively curved this is considered abnormal curvatures.

In order to have ideal dynamic (moving) posture the same concept applies as above, all body parts should remain in line with one another and the spine should remain in a functional neutral posture.

Having abnormal curvatures of the spine can cause musculoskeletal conditions as well as impede an individual’s functional ability. If function is not hindered by abnormal curvatures in the spine, there is most likely an associated compensation. Over the course of time compensations can cause the musculoskeletal and soft tissue systems to breakdown.

Common types of postures (see figures):

- A. Ideal or preferred posture (functional neutral posture)
- B. Swayback posture: severe forward head posture, excessive rounding of thoracic spine, excessively rounded shoulders, pelvis is in front of the feet, hips are in an extended position, knees excessively bent backward.
- C. Flat back posture: mild forward head posture, flat thoracic spine, decreased curvature in the lumbar spine, pelvis is tilted (rotated) backwards, hips are in an extended position.
- D. Military posture (standing at attention): flat upper back and neck, head flexed on the neck, too little curvature of the cervical spine, excessively squeezed together shoulder blades, diminished thoracic rounding.
- E. Scoliosis: rotational component, head is in line with the pelvis but the shoulder and pelvis are not level. This may be due to structural versus nonstructural or functional components. A structural deformity may be due to the length of the lower extremity long bones or vertebrae rotation. A nonstructural or functional deformity is likely due to a soft tissue impairment rather than unequal bone length.



What is ergonomics?

Ergonomics is the study of the relationship between workers, their environment and the equipment utilized for their job. It is important for an individual to have a functionally appropriate work station to avoid or reduce the likelihood of an injury. Common work related injuries include but are not limited to migraines or headaches, neck and back pain and/or strain, and repetitive overuse injuries usually resulting in tendinitis or bursitis.

