

Scoliosis and Common Spine Distortions

During puberty, the rate of growth is accelerated and the spine needs to develop at a matching pace. Abnormalities along the spine may appear during this process partly because at this phase bones have not yet reached the level of calcification that characterizes mature bones, rendering them particularly vulnerable.

Young females are more susceptible to these kind of spinal problems than males of a similar age. The distortions of spinal column alignment that may happen at this stage are classified as: hyperkyphosis, hyperlordosis and scoliosis.

Hyperkyphosis is an excessive convex curvature of the thoracic spine. This problem usually sets in with the holding of a poor posture, either during long periods of sitting or standing. From a psychological perspective, it may start as an attempt to withdraw and protect the heart, or simply as a result of shyness and/or an attempt to hide a newly developing anatomy.



Fig. 2.33



Fig. 2.34



Fig. 2.35

Hyperlordosis is an increase of the natural concave lumbar curve.

Wearing high heel shoes, at a stage when the spine is still vulnerable in its development, can worsen the condition.

Figure 2.34 to the far left, shows a case of a mild hyperkyphosis, whereas Figure 2.35 depicts an example of a relatively mild hyperlordosis.

For comparison, Figure 2.36 shows a spine with normally developed curves.

(From Barclay Custom Corsets—Public Domain)

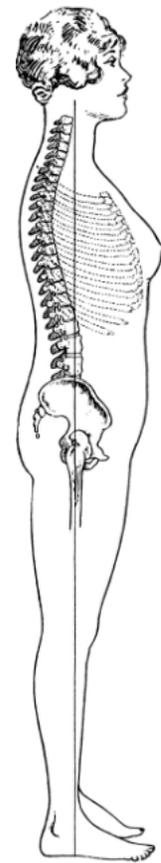


Fig. 2.36

Scoliosis, potentially the most serious of these conditions, is the side to side curvature of the spine, usually also involving a rotation within the curve. Whenever this occurs, the convex side of the scoliosis curve will appear more prominent, protruding further out relative to the other side of the back. This effect can easily be observed by asking the patient to bend slightly forward and observing the relative height of both sides of the back.

The condition may be the result of structural misalignments or muscular imbalances. However, once the deviation starts, the integrity of the spine is destabilized, thus facilitating further progression of the curve and associated conditions. For these cases, a balanced yoga practice focused on alignment is beneficial.

There are three main type of scoliosis:

Idiopathic Scoliosis is the most common form, affecting up to 2% of the population. It usually appears in adolescence during a period of rapid growth and develops gradually with no associated pain in the initial stages. For unknown reasons, this condition is much more common in females.

Congenital Scoliosis refers to the malformation of the spine in uterus during the 3rd-6th week after conception. This condition is rare.

Neuromuscular Scoliosis refers to the curvature of the spine which is associated with a neurological disorder such as cerebral palsy, spina bifida, muscular dystrophy and spinal cord injury.

Although it was stated that **Idiopathic Scoliosis** is more commonly observed in women, Figure 2.37 shows an example of this condition in an adult male.

For this individual, the convexity of the curve is towards his right armpit and the associated rotation of the spine causes the right side of the back to protrude further out (further away from the front of his body).

Traditional treatment of Idiopathic Scoliosis usually begins with external bracing to prevent the curve from getting worse. Bracing will not usually correct an existing, established curve. Therefore it is important to start the treatment in its early stages of development.

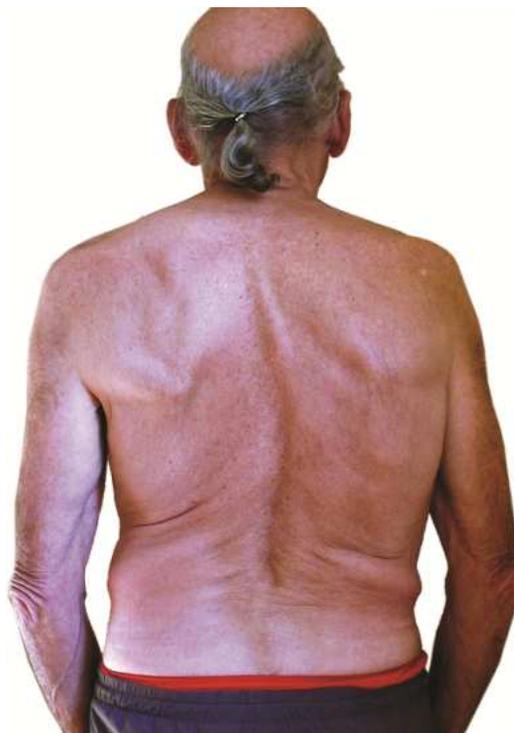


Fig. 2.37