Scoliosis

TERMINOLOGY (SYNONYMS)

- Abnormal spinal curvature
- Dextroscoliosis: spinal curve with a convexity to the right
- Levoscoliosis: Spinal curve with a convexity to the left
- Rotoscoloisis: spinal curve with rotation of the vertebrae
- Kyphoscoliosis: Spinal curve with an element of kyphosis which refers to a normal postural curve in a posterior direction.

INTRODUCTION

Scoliosis is a term, which is used to describe a condition characterized by the presence of one or more abnormal spinal curves in a lateral direction to the right or left of midline. The presence of scoliosis does always represent disease. A lateral curvature of the spine typically assumes an S or C shape. Some scoliosis are associated with significant rotation of vertebrae within the curved area of the spine. This is often referred to as a rotary scoliosis. The spine has normal curves when looking from the side, but it should look straight when looking from the front.

There are four primary categories of scoliosis; developmental (congenital) scoliosis, degenerative scoliosis, neuromuscular scoliosis and idiopathic scoliosis. Lower extremity leg length inequality (LLI) can lead to a lateral curvature in the low back with compensatory curve to the opposite side in the mid back. Other less common causes for scoliosis include spinal bifida, muscular dystrophy, spinal muscular atrophy, spinal tumors and cerebral palsy. Over 80% of scoliosis is considered to be idiopathic meaning that there is no known or confirmed underlying cause. Most cases of idiopathic scoliosis are found in otherwise healthy asymptomatic people.

Scoliosis usually develops in the midback or in the thoracolumbar region which is where the mid back (thoracic spine) and low back (lumbar spine) meet. Less often it can be primarily limited to the low back.

Scoliosis can occur due secondary to a birth defect (congenital) or may be acquired due to a loss of structural stability or due to a loss of supportive integrity due to other disorders. All spines have curves. Some curves in the neck, midback and lower back are normal. In the neck and low back the curve in the anterior to posterior direction is referred to as the lordosis. In the mid back, the anterior-posterior curve is referred to as the kyphosis. These spinal curves help to absorb shock and help to provide balance and alignment over the pelvis. The term scoliosis refers to abnormal curves in the spinal column beyond the normal curve variance; we refer to this as scoliosis.