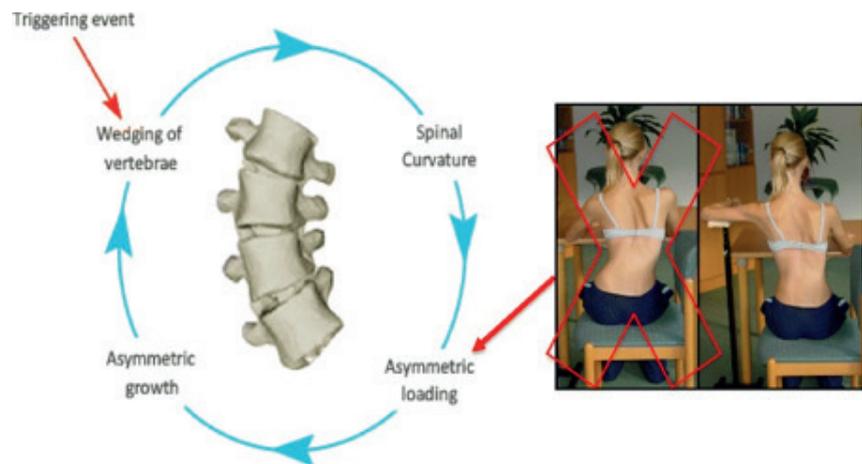


# CONSERVATIVE TREATMENT APPROACHES IN ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS)

Scoliosis is a three-dimensional deformation of the spine, thorax and progressive shape-shifting of the body.

The principles of SOSORT (Society for Scoliosis Orthopedic & Rehabilitation Treatment), published in 2011, define scoliosis as the distortions of the lateral curvature in the frontal plane, the axial rotation in the horizontal plane and the normal curvature of the sagittal plane. AIS affects 2-3% of the normal population between the ages 10-16. While low-angle curvatures are seen equally in men and women, high-angle and progressive curvature are much more commonly observed in women.

Although studies have been done for many years, the etiopathogenesis of AIS has not been based on certain causes yet. Almost all systems in the body are suspected to affect AIS from proprioceptive perception to middle ear asymmetry, from collagen synthesis to cerebral anomalies and muscle asymmetry to bone structure mechanisms. In this regard, studies have shown that the biomechanical alignment of human body is prone to curvature and hence the sagittal plane distortions affect rotation. The number of patients with an



early diagnosed curvature disorder that might need surgery is reduced by the conservative treatment approach of PSSE (Physiotherapy Scoliosis Specific Exercises). It has been observed that many vital problems have occurred in where it is neglected and not treated. Some studies have shown that this disorder cause severe respiratory problems, severe lower back pain, increased disability and adverse effects on patients' careers and socio-economic status.

AIS is often noticed by the patient's friends and family due to visible asymmetry of the individual. Adam's forward bend test and Scoliometer

usage are very effective methods of evaluation, additionally a detailed postural and physical examination should be conducted. In frequently seen thoracic curvatures of the right side, the right shoulder shifts to the front, the left shoulder gets lowered and protrusion of the inner part of the right scapula manifests. The length of each leg must be measured to assess leg asymmetry.

## Adam's Test

There are seven conservative approaches accepted internationally. The Schroth method, which forms the basis of almost all conservative approaches, increases axial