importantly cross-tensioning exercises, which increase spinal flexibility,
-Exercises aimed at balance problems, weight transfer exercises,
-Respiratory exercises,
-Exercises for strengthening abdominal muscles,
-Exercises for lumbar and thoracic region muscles are performed.
The aim of the surgical treatment of AIS is to prevent the progression of curvature, to ensure the global coronal and sagittal balance and to incorporate as few segments into the fusion zone as possible while achieving all of this. While curvatures over 50˚ in the thoracic region require surgery, curvatures over 40˚-45˚of the lumbar region necessitate surgery.

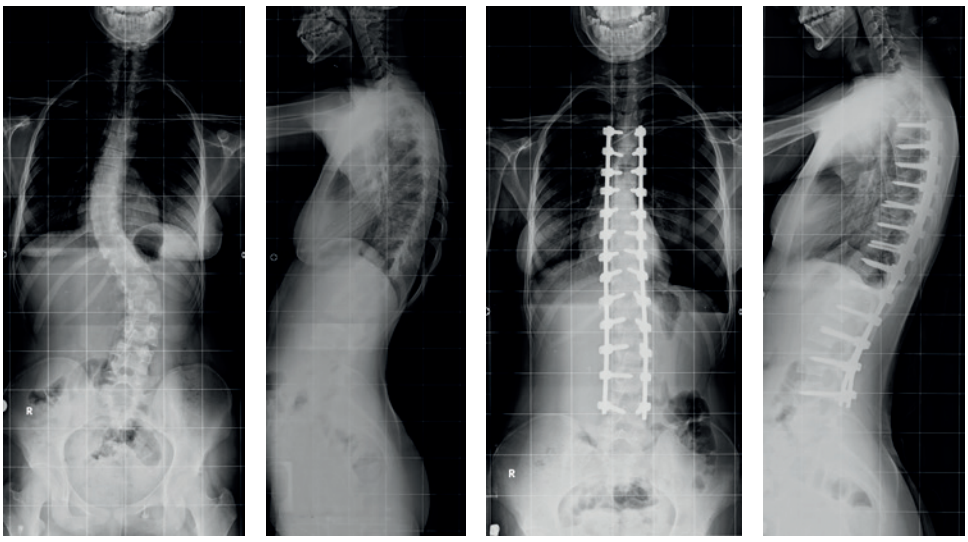
Whether a fusion or fusion-free surgery will be performed is decided according to the degree of bone age, grade and curvature of the patient.

KYPHOSIS

Kyphosis is the most common problem of sagittal (lateral) plane disorders. Kyphosis is defined as the increase of normal lateral curvature of the spine. The acceptable range of Cobb angle measured between the T5 upper endplate and the T12 bottom endplate is normally between 10°-40° **[15]**. Above average curvatures of thoracic vertebra on the sagittal plane is called the kyphosis. The most common cause of the kyphosis seen in the period of adolescence is Scheuermann's kyphosis. Other than this, iatrogenic causes such as trauma, inflammatory diseases, spinal tumors, infectious diseases, neuromuscular diseases, meningomyelocele, neurofibromatosis and laminectomy can also cause kyphosis.

Scheuermann's kyphosis is a disorder that begins before puberty and becomes evident during adolescence and leads to spinal curvatures in the thoracic region and sagittal plane **[16].** Etiopathogenesis have not been able to fully clarify its causes **[17].** In most cases, the disorder manifests few symptoms and does not cause further deformity. Pain is the main reason why 60% of patients suffering from Scheuermann's kyphosis consult their physicians. In particular, the disorder that causes back pain during the period of adolescence manifests fewer symptoms after the completion of skeletal development. The location of pain is usually associated with the location of the deformity. It is divided into two types according to their spinal location; in the middle thoracic region (type I). This is the most common type. In the lower thoracic region (type II). Forward bend (flexion) test is beneficial in distinguishing the deformity from postural kyphosis during diagnosis. A sharp opening at the peak of the curvature occurs, while the curvature of the postural cyst becomes more rounded in Scheuermann's kyphosis. The severity of the skew, the patient's age and pain, the presence of accompanying symptoms such as paraparesis should be kept in mind when deciding the treatment in Scheuermann's kyphosis. The only and absolute indication of surgical treatment is neurological deficits. Apart from this, surgical indications are relative. Some of these are; rapid developing curvatures, non-surgical methods of pain, curvatures over 80° in the thoracic region and 65° in the thoracolumbar region.

The use of tlso corsets is not sufficient to correct the curvatures in thoracic Scheuermann's kyphosis which is the most common type of Scheuermann's kyphosis because



Picture 4: Images of the surg patients with higher severity