

The knowledge of normal growth parameters, mainly including total body growth, spinal growth and pubertal growth spurt, is essential in treatment of all patients with spinal deformities and it allows a better understanding of both normal and abnormal spine growth and of the pathologic changes caused by onset spinal deformity in a growing spine. Childhood includes changes both in body proportions and also changes in sexual development. Sexual maturation has very tight correlation to skeletal development. Bone age is an important parameter used in consideration of development and growth of the child, it relates to maximal growth rate in time of pubertal spurt. This thesis is focused on summary of findings of spinal growth in childhood and adolescence in order to predict spine growth in clinical practice. The thesis considers patients with adolescent idiopathic scoliosis, which is the most common spinal deformity that affects children and adolescents.