

## The effect of physiotherapy specific exercises on the treatment of adolescent idiopathic scoliosis

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Adolescent idiopathic scoliosis (AIS), characterized by three-dimensional deviations of the spine, has an unknown etiology. It affects 2 to 4% of healthy children, mainly in the growth spurt phase, and has negative impacts on the perception of self-image, self-esteem and, later, on the quality of life and functionality of their carriers. Conservative treatment of structural changes in the spine includes specific exercises for scoliosis (PSSE), combined or not with the use of rigid orthosis, to prevent or reduce curve progression. The aim of this study was to review the most evidence-based and effective exercise protocols and methods for the treatment of adolescent idiopathic scoliosis. Only randomized and controlled clinical trials from Pubmed, Lilacs, Cochrane Library and PEDro (Physiotherapy Evidence Database) databases and published in English between 2015 and 2020 were included. The keywords used in the search were adolescent idiopathic scoliosis, spine, posture, physiotherapy, postural deviation, specific exercises for scoliosis and postural diagnosis. Eight randomized clinical trials were selected. The number of participants was three hundred and forty-five and their outcomes varied between Cobb angle, Global Rating of Change (GRC), SRS-22r questionnaire, aesthetic perception, and vertebral rotation angle. It is concluded that although more studies on the subject are still needed, a three-dimensional approach through exercises proved to be effective in the treatment of adolescent idiopathic scoliosis.

**Key-words:** Adolescent idiopathic scoliosis. Spine. Posture. Physiotherapy. Postural deviation. Specific exercises for scoliosis and postural diagnosis.

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