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1: [Disabil Rehabil.](#) 2008; 30(10): 772-85. [informaworld](#) [Links](#)

Exercises reduce the progression rate of adolescent idiopathic scoliosis: results of a comprehensive systematic review of the literature.

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BACKGROUND: A previously published systematic review (Ped.Rehab.2003 - DARE 2004) documented the existence of the evidence of level 2a (Oxford EBM Centre) on the efficacy of specific exercises to reduce the progression of AIS (Adolescent Idiopathic Scoliosis). **AIM:** To confirm whether the indication for treatment with specific exercises for AIS has changed in recent years. **STUDY DESIGN:** Systematic review. **METHODS:** A bibliographic search with strict inclusion criteria (patients treated exclusively with exercises, outcome Cobb degrees, all study designs) was performed on the main electronic databases and through extensive manual searching. We retrieved 19 studies, including one RCT and eight controlled studies; 12 studies were prospective. A methodological and clinical evaluation was performed. **RESULTS:** The 19 papers considered included 1654 treated patients and 688 controls. The highest-quality study (RCT) compared two groups of 40 patients, showing an improvement of curvature in all treated patients after six months. We found three papers on Scoliosis Intensive Rehabilitation (Schroth), five on extrinsic autocorrection-based methods (Schroth, side-shift), four on intrinsic autocorrection-based approaches (Lyon and SEAS) and five with no autocorrection (three asymmetric, two symmetric exercises). Apart from one (no autocorrection, symmetric exercises, very low methodological quality), all studies confirmed the efficacy of exercises in reducing the progression rate (mainly in early puberty) and/or improving the Cobb angles (around the end of growth). Exercises were also shown to be effective in reducing brace prescription. **CONCLUSION:** In five years, eight more papers have been published to the indexed literature coming from throughout the world (Asia, the US, Eastern Europe) and proving that interest in exercises is not exclusive to Western Europe. This systematic review confirms and strengthens the previous ones. The actual evidence on exercises for AIS is of level 1b.

PMID: 18432435 [PubMed - in process]

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