

## Can bracing help adults with chronic back pain and scoliosis? Short-term results from a pilot study.

Zaina F<sup>1</sup>, Poggio M<sup>1</sup>, Donzelli S<sup>1</sup>, Negrini S<sup>2,3</sup>.

### Author information

### Abstract

**BACKGROUND:** Adult scoliosis is sometimes associated with back pain. Recently, the Peak<sup>TM</sup> Scoliosis Brace was designed to alleviate pain in **adult** patients with scoliosis.

**OBJECTIVES:** To test the efficacy of the Peak Scoliosis Brace in reducing pain in **adult** scoliosis patients.

**STUDY DESIGN:** Prospective experimental cohort study.

**METHODS:** A total of 20 **adult** females with back pain secondary to idiopathic scoliosis were included. Patients were evaluated at baseline immediately before starting **bracing** and after 1 month. The brace had to be worn for at least 2 h per day. The outcome measures used were Graphical Rating Scale, Roland-Morris Questionnaire, Core Outcome Measurement Index, and Oswestry Disability Index.

**RESULTS:** Worst pain, back pain, and leg pain significantly improved from 7.15 to 5.85, from 6.55 to 5.25, and from 5.65 to 3.55, respectively (  $p < 0.05$ ). A total of 75% of patients reported improved worst and leg pain, 65% improved back pain, 30% of patients achieved the minimal clinically significant difference of 2 points for worst pain, 60% for leg pain, and 25% for back pain. Roland-Morris Questionnaire and Core Outcome Measurement Index improved (  $p < 0.05$ ) and no differences were observed for Oswestry Disability Index.

**CONCLUSION:** The Peak Scoliosis Brace led to some improvement of pain at 1 month in a group of **adult** women with scoliosis and chronic low back pain. The quality of life did not change significantly. Clinical relevance According to our data, the Peak Brace is helpful to quickly improve pain in patients with chronic low back pain secondary to scoliosis. To achieve this goal, it should be applied for at least 2 h per day.

**KEYWORDS:** Scoliosis; chronic pain; conservative treatment; disability; low back pain; pain research; spinal orthotics