

A quick fix is possible for sacroiliac joint pain in many children and adolescents

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Investigators report that a simple bedside manual therapy to correct a painful misaligned sacroiliac joint was highly successful in a group of 45 patients 10 to 20 years of age. Thirty-six patients (80 percent) obtained significant pain relief, whereas nine patients (20 percent) experienced minimal to no relief. In 24 patients (53 percent) complete resolution of pain was experienced immediately upon treatment. Only two patients required a second treatment because of symptom recurrence. These findings are reported in a new article, "Sacroiliac joint pain in the pediatric population.

Clinical article," by Stoev and colleagues, published in the June 2012 issue of the *Journal of Neurosurgery: Pediatrics*, scheduled to appear [online](#) today.

Investigators at Washington University in St. Louis and St. Louis Children's Hospital conducted a [retrospective analysis](#) of [patient records](#) in children and adolescents with [low back pain](#) who had been referred to a single [neurosurgeon](#), Jeffrey R. Leonard, M.D., between 2005 and 2011. At the initial consultation, the patients performed a variety of physical maneuvers designed to evaluate whether their pain stemmed from misalignment of the sacroiliac joint. In 48 patients pain was attributed to this misalignment. There were 37 female and 11 [male patients](#) with a mean age of 15.7 years (range 10 to 20.6 years). The average duration of symptoms was 7 months (range 0.25 to 48 months). Before treatment the patients' mean [pain score](#) was 5.7 (range 3 to 9.5) on a 10-point visual analog scale ranging from 0 = no pain to 10 = most

[extreme pain](#). Three patient files were incomplete, and therefore the investigators could only report results on [pain relief](#) in the 45 [pediatric patients](#) in whom complete follow-up data were accessible.

Treatment consisted of sacroiliac joint manipulation accomplished by performing isometric hip contraction and extension. Physical therapists call this procedure the "muscle energy technique." The patient flexes and extends the hip while the physical therapist provides resistance to the move. This forces the sacroiliac joint back into proper alignment. Most patients experienced improvement in their symptoms, and more than half of the patients had immediate pain relief following treatment.

When asked whether the investigators were surprised to find that such a simple technique could bring about pain relief in so many patients, Dr. Leonard said, "No we were not surprised. We were surprised by the number of patients who actually presented with this problem. These children have had prior imaging studies, procedures, or been in back pain for over a year."

Following treatment, patients were given instructions for at-home exercises to strengthen muscles in the region to ensure that sacroiliac joint alignment would be maintained. Dr. Leonard believes that patients were compliant with these exercises "because a large number of patients were in significant debilitating pain which kept them out of activities. This simple manipulation allowed them to potentially leave clinic pain free." In this study only two patients needed repeated treatment.

The authors state that there are no clear estimates on how many children and adolescents suffer pain from misaligned sacroiliac joints, but low back pain is fairly common. Unlike adults whose sacroiliac joint-related pain is usually related to disc deterioration or joint disease, children and adolescents are more likely to experience pain due to repeated stress from athletic activities. Girls are more susceptible (77% in this study)

because of the laxity of the female developing pelvic girdle.

As the authors point out, the source of low back pain is often difficult to identify, which can make patients face long periods of painful symptoms, drug dependency, and/or unnecessary surgical procedures. The take-away message from this study is that simple manual manipulation should be tried in children and adolescents whose low back [pain](#) is suspected to be caused by a misaligned sacroiliac joint. The therapy described in this paper is cost-effective, takes little time, and poses no negative consequences to the patient. The authors found that this simple manipulation procedure can provide sustained relief in most [patients](#).

More information: Stoev I, Powers AK, Puglisi JA, Munro R, Leonard JR. Sacroiliac joint pain in the pediatric population. Clinical Article. *J Neurosurg: Pediatrics* 9:602-607, 2012; [DOI: 10.3171/2012.2.PEDS11220](#)

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