

Spinal manipulation and exercise for low back pain in adolescents

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Low back pain affects almost a third of Americans. While there is a long-standing belief that low back pain is limited to adults, research has shown it develops with increasing frequency during adolescence. With the increasing concern about opioid prescription rates, including among U.S. youth—up to 40 percent with low back pain receive opioids as part of their treatment—there is heightened urgency to identify safe and effective non-drug treatment options. Spinal manipulation and exercise are two such approaches which are recommended for adults with low back pain. Little is known, however, regarding the effectiveness of these treatments for adolescent low back pain sufferers.

New research recently published in *Pain* from the Earl E. Bakken Center for Spirituality & Healing's Integrative Health & Wellbeing Research Program, found that for adolescents with chronic low back [pain](#), [spinal manipulation](#) combined with supervised exercise was more effective than supervised exercise alone over a one-year period. Spinal manipulation is one of the most commonly used complementary therapies in the U.S. In this study, it was performed by chiropractors. Researchers also noted that both groups had about an 80 percent reduction in medication use at the end of [treatment](#).

"Our findings are timely given the growing concerns about the safety and effectiveness of common drug treatments for pain management," said Gert Bronfort, D.C., Ph.D., the study's principal investigator and senior author said. "This study demonstrates that non-drug options, like spinal manipulation and exercise, have an important role to play in managing

adolescent low back pain."

Among the study's findings, researchers found that on average, more patients in the spinal manipulation with exercise group experienced reductions in their low back pain severity. Interestingly, these results were sustained after the treatment was discontinued. Specifically:

- at the end of three months of treatment, 30 percent of patients who received spinal manipulation with exercise experienced at least a 75 percent reduction in pain severity compared to 14 percent patients who only exercised;
- at six months (approximately three months after treatment ended), 70 percent of patients who received spinal manipulation with exercise experienced a 50 percent reduction in pain compared to 40 percent of patients who only exercised.

"We find it especially interesting that the spinal manipulation with [exercise](#) patients experienced less pain even months after their treatment was over," said Roni Evans, D.C., M.S., Ph.D., lead author on the study and the Integrative Health & Wellbeing Research Program research director. "We are unsure why this is and will be examining additional data to try and gain some insights."

While similar studies have typically been conducted in adults, the researchers said this study is one of the first of its size and rigor to look at nonpharmacologic treatments for adolescents with low back pain.

"Given that there is relatively little research to support any type of treatment for the management of low back pain in younger patients with [low back pain](#), this study's findings have important implications for all provider types looking to relieve their [patients](#) pain and reduce the dependence on more aggressive and potentially harmful forms of care," said Evans.

More information: Roni Evans et al. Spinal manipulation and exercise for low back pain in adolescents, *PAIN* (2018). [DOI: 10.1097/j.pain.0000000000001211](https://doi.org/10.1097/j.pain.0000000000001211)

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