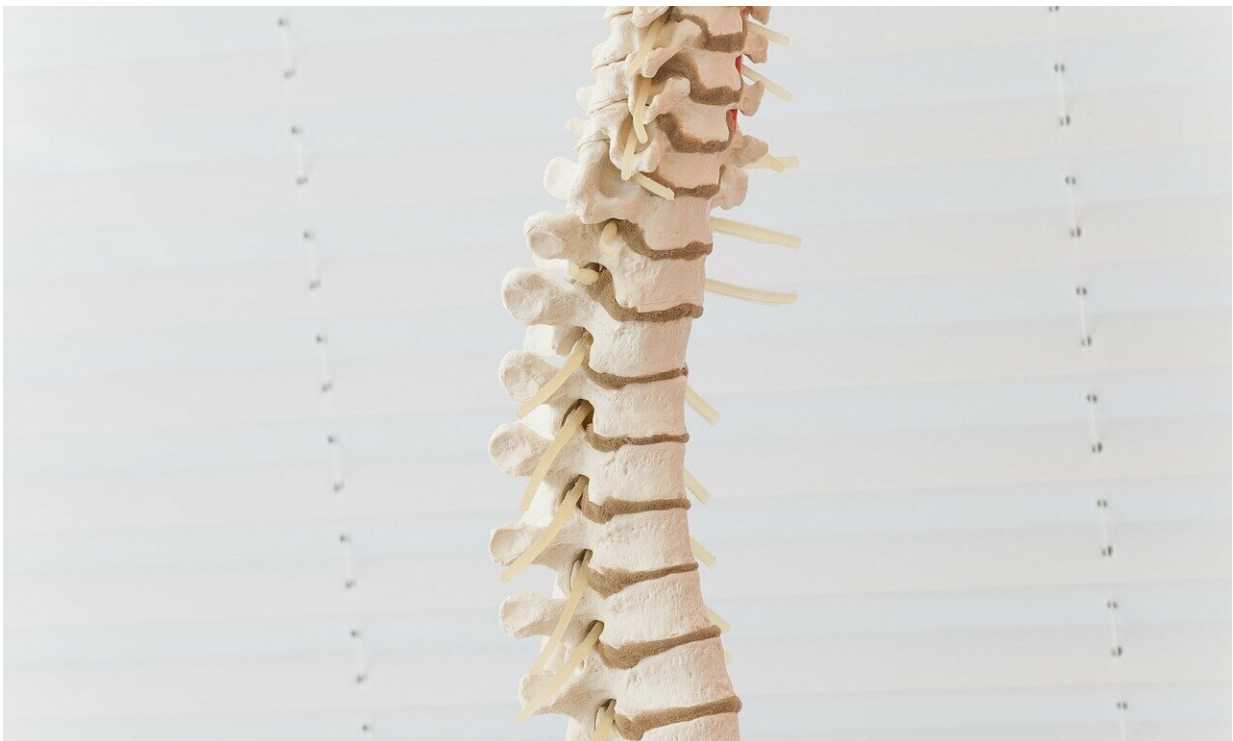


Duration of pre-operative pain linked to chronic opioid use after adult spinal deformity surgery

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Credit: CC0 Public Domain

In a Johns Hopkins Medicine study of patients who underwent adult spinal deformity (ASD) surgery, pre-operative opioid use and pain duration of four or more years were independently associated with

higher odds of chronic post-surgery opioid use.

The findings were published in the July 2022 issue of *Spine Deformity*.

"With this study, we wanted to explore the association between certain pre-surgery factors and chronic, post-surgery opioid use among patients treated surgically for ASD," says Brian Neuman, M.D., an associate professor of orthopedic surgery at the Johns Hopkins University School of Medicine. "We decided to define chronic opioid use as opioid use one year and two years after ASD surgery."

The research team reviewed the Johns Hopkins Hospital database of patients who underwent ASD surgery between January 2008 and February 2018. After selecting 119 patients from these records—all of whom were 18 years or older and had the necessary clinical data available—the team analyzed that data, which included the patients' reported pre-operative health-related quality of life (HRQoL) and their one- and two-year post-operative follow-up. The Centers for Disease Control and Prevention defines health-related quality of life as a person's "perceived physical and mental health over time."

Results showed that while factors such as age, sex, and history of smoking were not associated with chronic post-operative opioid use among ASD surgery patients, other factors were: primarily pre-operative opioid use and duration of pre-operative pain. Patients who had engaged in pre-operative opioid use were six times more likely to report chronic opioid use after their operation. Those who had experienced four or more years of pre-operative pain were three times more likely to report post-operative chronic opioid use.

Neuman believes these results can be used to inform pre-operative conversations between surgeons and patients about the risk of post-operative opioid addiction.

"Physicians can explain that while most patients do not become addicted to opioids, pre-operative opioid use and duration of pre-operative pain may increase that risk," Neuman says. "For patients with multiple risk factors and those concerned about [addiction](#), physicians can offer alternative [pain management](#) methods, such as non-narcotic medications, and provide early referrals to pain management specialists. Physicians can also assess if there are any behavioral factors that could be better evaluated by a psychologist who specializes in [pain](#) management."

More information: Kevin C. Mo et al, Preoperative duration of pain is associated with chronic opioid use after adult spinal deformity surgery, *Spine Deformity* (2022). [DOI: 10.1007/s43390-022-00531-7](https://doi.org/10.1007/s43390-022-00531-7)

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