

Evidence reviews support avoiding opioid prescriptions for sprains and strains

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Two new evidence reviews related to acute musculoskeletal injuries like strains and sprains suggest other forms of treatments are as effective as opioids and have less risk of harms to patients.

The details of the systematic reviews and meta-analyses, led by

McMaster University, are published today in the *Annals of Internal Medicine*.

The first article focuses on predictors of prolonged [opioid](#) use following initial prescription for acute musculoskeletal injuries in adults.

Researchers conducted a systematic [review](#) and meta-analysis of observational studies in MEDLINE, EMBASE, Web of Science and Google Scholar from inception through January 2020.

Based on 13 studies with 13.3 million participants, the overall prevalence of prolonged opioid use for high-risk populations, such as patients receiving Workers' Compensation benefits, Veterans Affairs claims, or patients with high rates of substance use disorders, was 27%. Meanwhile, the prevalence among the [general population](#) was 6%.

"Opioids are frequently prescribed for acute musculoskeletal injuries and may result in long-term use and consequent harms," said John Riva, corresponding author of the evidence review and an assistant clinical professor in the Department of Family Medicine at McMaster.

"Potentially important targets to reduce rates of persistent [opioid use](#) are avoiding prescribing opioids for these types of injuries to patients with past or current substance use disorder and, when prescribed, restricting duration to seven days or less and to lower doses."

The second article zeroes in on the management of acute pain from non-low back musculoskeletal injuries.

Topical nonsteroidal anti-inflammatory drugs (NSAIDs), followed by oral NSAIDs, and then by acetaminophen, showed the most convincing and attractive benefit to harm ratio for patients with acute pain from non-low back musculoskeletal injuries. No opioid achieved benefit greater

than NSAIDs, and opioids caused the most harms, said Jason Busse, who was the principal investigator for the evidence reviews. He is an associate professor in the departments of anesthesia, and of health research methods, evidence, and impact at McMaster.

Researchers conducted a [systematic review](#) and meta-analysis of randomized trials from MEDLINE, EMBASE, CINAHL, PEDro and CENTRAL from inception through January 2020.

There were 207 eligible studies with 33,000 participants that evaluated 45 therapies. Among the injuries of participants in these trials were sprains, whiplash, muscle strains, non-surgical fractures and contusions.

"Our results demonstrate that opioids fail to achieve important benefits beyond alternative interventions with less harm. These results provide compelling reasons to avoid opioid prescribing in the setting of acute, non-low back, musculoskeletal [injury](#)," said Busse, first and corresponding author of the review.

Provided by McMaster University

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