

# Reducing opioid use prior to joint replacement surgery linked to better outcomes

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The use of opioids (narcotic pain medication), often prescribed for chronic musculoskeletal pain, has skyrocketed in recent years with 98 percent of the world's opioid prescriptions filled in North America. Two research studies presented this week at the 2016 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS), link decreased opioid use prior to joint replacement surgery with improved patient satisfaction and outcomes, fewer complications, and a reduced need for post-surgical opioids.

In the poster, "Pre-opioid use: Is there an association with outcomes following TKA?" researchers reviewed Humana, Inc. insurance data for 84,685 patients between 2007 and 2014. Patients undergoing total [knee replacement](#) (TKR), their comorbidities, prescriptions and 90-day outcomes were identified using condition/disease codes. An opioid user was defined as someone with an opioid prescription filled during the three months prior to TKR; patients with no history of opioid prescriptions were categorized as non-users.

Nearly 59 percent of the patients (49,617) did not use opioids prior to surgery, while 41.4 percent did. The top three prescribed opioids were hydrocodone/acetaminophen, oxycodone/acetaminophen, and oxycodone.

"This study found that within the three months prior to TKR,

approximately one-third of patients are taking opioids," said Nicholas Bedard, MD, an orthopaedic surgeon at the University of Iowa Hospitals and Clinics and lead study author. "Pre-operative [opioid users](#) had continued and prolonged opioid use following TKR compared to non-opioid users. These patients also had more comorbidities and higher rates of post-operative complications compared to non-opioid users."

A second study, "Pre-operative Reduction of Opioid Use Prior to Total Joint Arthroplasty," presented today, found similar results in a smaller number of patients undergoing TKR or total hip replacement surgery (THR).

In this study, 41 patients who had regularly used opioids and successfully cut their opioid intake by 50 percent prior to a primary TKR or THR were matched with a group of joint replacements patients who continued to take opioids at a consistent level.

Patient-reported outcomes were measured between six and 12 months post-operatively using several common health assessment tools. The study found that those who successfully weaned from opioids performed significantly better than those who did not, and had outcomes comparable to patients with no opioid use.

"In opioid users, the study showed that a 50 percent or greater preoperative reduction of opioid use leads to better patient outcomes," said Kevin Bozic, MD, MBA, lead author and an orthopaedic surgeon at Dell Medical School and the University of Texas at Austin. "As a result, chronic opioid use, which is known to be associated with poor outcomes in patients who undergo hip or knee replacement, may in fact be a modifiable risk factor.

"We recommend that chronic opioid users who are considering hip or knee replacement work with their primary care physician or [pain](#)

[management](#) team to reduce their use of opioids prior to considering elective surgery," said Dr. Bozic.

To help address the growing opioid epidemic in the U.S., the AAOS Board of Directors recently approved an "Information Statement on Opioid Use, Misuse and Abuse in Orthopaedic Practice," calling for a comprehensive effort to increase and improve physician, caregiver and patient education; the tracking of opioid prescription use; research funding for alternative pain management; and support for more effective [opioid abuse](#) treatment programs. In addition, the Academy is among the 27 physician organization members of the American Medical Association Task Force to Reduce Opioid Abuse, committed to identifying the best practices to combat this public health crisis and moving swiftly to implement those practices across the country.

"This baseline data from this research will be useful for future comparison in order to evaluate for improvements as the AAOS works to implement strategies for safer and more effective pain management in order to decrease [opioid](#) use, misuse and abuse within the orthopaedic community," said Dr. Bedard.

Provided by American Academy of Orthopaedic Surgeons

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