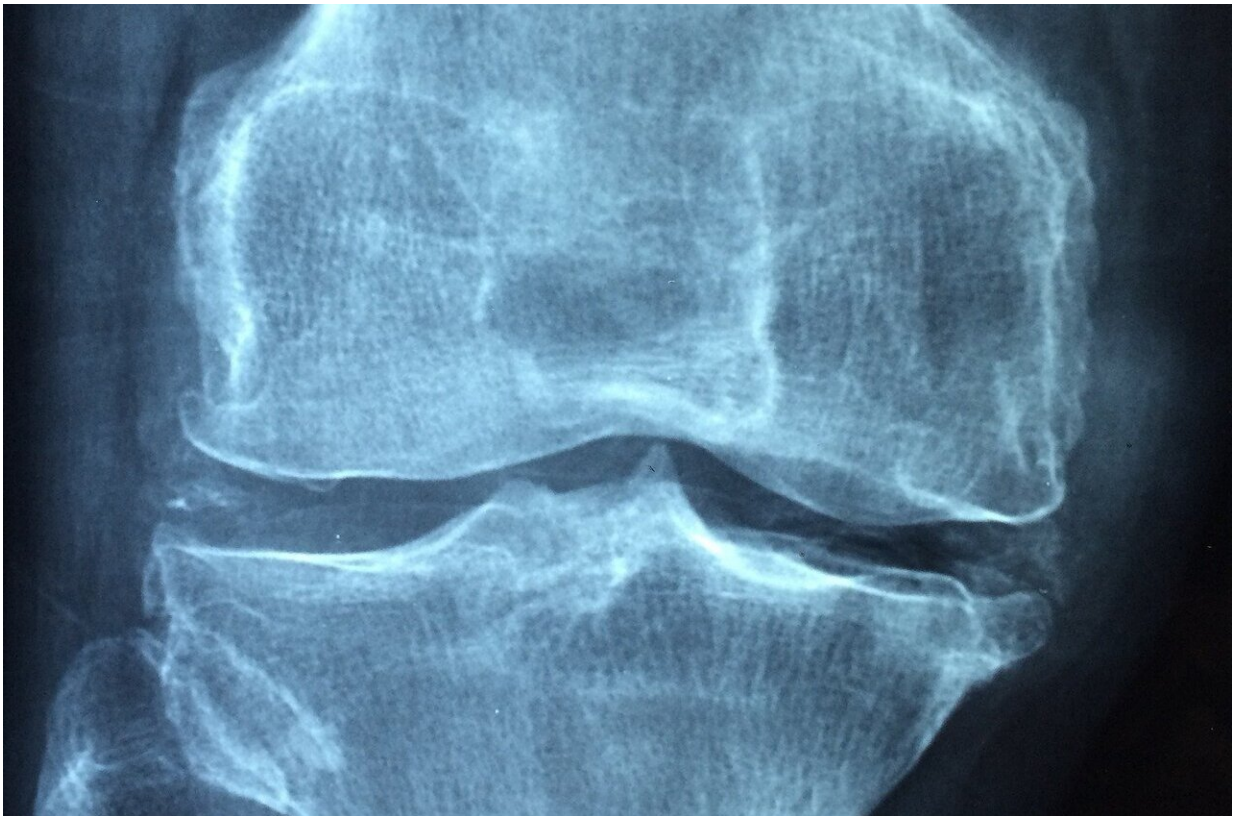


Researchers find duloxetine may reduce opioid use after total knee replacement

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In a study conducted by researchers at Hospital for Special Surgery (HSS), cumulative opioid use was reduced by 30% in a patient group that received duloxetine after total knee arthroplasty (TKA) compared

with patients who received placebo. Patients who received duloxetine also reported higher pain management satisfaction and less pain interference with mood, walking, normal sleep, and work activities. These findings were presented at the 2021 Spring American Society of Regional Anesthesia and Pain Medicine (ASRA) Annual Meeting.

Studies have demonstrated that many patients report [joint pain](#) two weeks after TKA. Given the status of the ongoing [opioid](#) epidemic, it is critical to study safe and effective alternative pain treatments.

"Previous research has shown us how to keep most patients relatively comfortable for the first one to two days after TKA. However, patients often have significant and troubling pain during the first two weeks, once the nerve blocks wear off. They often take large amounts of opioids," said principal investigator Jacques Ya Deau, MD, Ph.D., an anesthesiologist at HSS. "It is important to reduce postoperative opioid use without increasing pain or worsening the patient experience."

Finding alternative strategies for [pain relief](#) after TKA is imperative, as improved postoperative pain management is linked to improved patient satisfaction, faster rehabilitation, and reduced complications.

Dr. Ya Deau and colleagues enrolled 160 patients undergoing TKA into the study and randomized them into a [duloxetine](#) or [placebo](#) group. Patients took 60 mg of oral duloxetine or placebo once daily for 14 days after surgery and answered questions on postoperative days one, two, seven, 14, six weeks, and 90 days. Postoperative pain management also included acetaminophen, ketorolac, meloxicam, and oxycodone as needed.

The researchers collected data on numerical rating scale (NRS) scores for pain management, opioid consumption, patient satisfaction, and questions based on the Brief Pain Inventory.

Duloxetine was found to be better than placebo for reducing opioid use and was of equal efficacy to placebo for reducing pain. Duloxetine was also better than placebo for patient satisfaction and for the effect of pain on mood, walking, working, and sleeping.

"Duloxetine, given on the day of surgery and once daily for 14 days afterwards, reduces opioid use by about 30%. Patients receiving duloxetine are more satisfied with their pain management, and pain interferes less with their activities and mood," Dr. Ya Deau said.

HSS is committed to patient safety and being a leader in effective [pain](#) management. Its Controlled Substances Task Force continues to make strides in patient education and safe prescribing.

In addition to this study, HSS is ramping up further research on opioids with the help of a \$3 million grant from the Starr Foundation. "Future research could examine optimum duration of therapy and determine whether duloxetine is also useful for other orthopedic procedures. We also need to try to understand barriers to adoption of duloxetine as a postoperative analgesic," Dr. Ya Deau concluded.

Provided by Hospital for Special Surgery

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