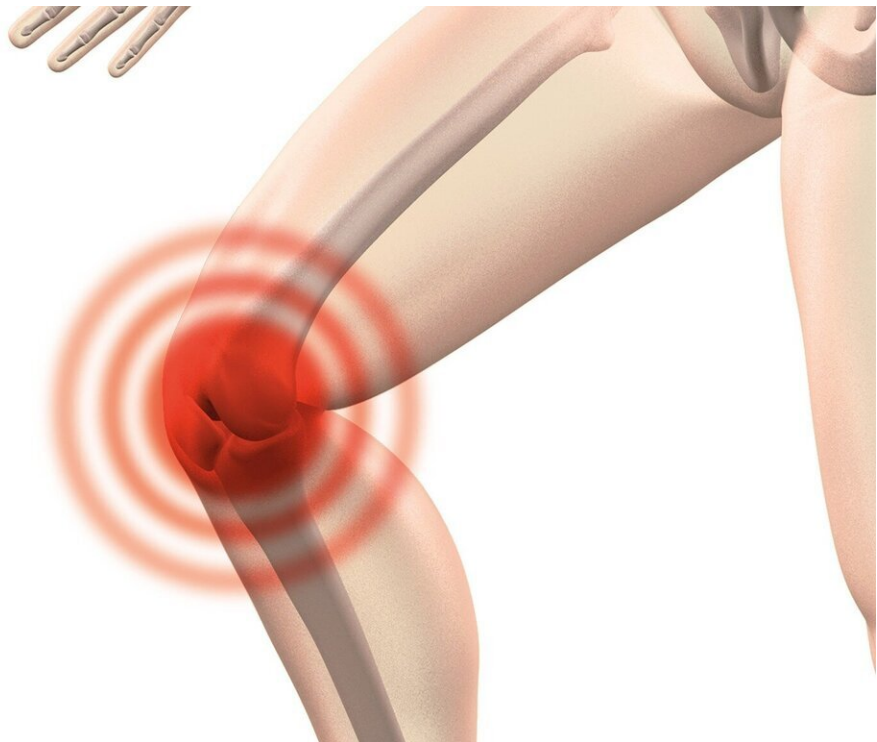


# Acupuncture reduces pain and opioid use for total knee replacement surgery patients

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Credit: CC0 Public Domain

Patients who have acupuncture during total knee replacement surgery report less pain and need far fewer opioids to manage their discomfort, according to a study being presented at the ANESTHESIOLOGY 2021 annual meeting. Results of the study showed that 65% of patients who received acupuncture during surgery achieved a low-dose or opioid-free

postoperative experience, compared to 9% of patients outside of the study.

"Total knee replacements are one of the most common operative procedures in the United States and often very painful, so there's a great need to explore non-opioid pain relief techniques for this type of surgery," said Stephanie Cheng, M.D., DABMA, lead author of the study and assistant attending anesthesiologist at the Hospital for Special Surgery and assistant professor of clinical anesthesiology at Weill Cornell Medicine, both located in New York City. "Acupuncture is extremely safe and can help reduce pain with few unwanted side effects, but it has not been well researched as part of surgical anesthesia."

The study included 41 patients undergoing primary total knee replacement at the Hospital for Special Surgery. All patients received the institution's standard opioid-sparing multimodal analgesic protocol, with the addition of electroacupuncture—a modified form of traditional [acupuncture](#) that applies a small electric current to thin needles that are inserted at known acupuncture points on the body. The acupuncture was administered during surgery by Dr. Cheng, who is board-certified in medical acupuncture, to eight specific points in the ear to provide targeted [pain relief](#) in the knee.

With the addition of acupuncture, the majority of patients had a significant reduction in postoperative opioid use, compared to historical controls. Sixty-five percent of patients maintained a low-dose opioid regimen of 15 oxycodone pills or less (57.5%) or remained completely opioid-free (7.5%) from induction of anesthesia to 30 days after surgery. Historically, only 9% of patients outside of the study maintained a low-dose or opioid-free regimen post-surgery. All patients studied discontinued opioid use after 30 days following [surgery](#).

"Our study shows that if a trained medical acupuncturist is available to

perform acupuncture in the operating room, it can help patients with postoperative pain recovery," said Dr. Cheng. "Most studies fail to incorporate nontraditional techniques, such as acupuncture, to help decrease the dependence on opioid medications for postoperative pain control."

In the context of the opioid epidemic, achieving low-dose perioperative opioid consumption is critical to reducing the risk of long-term [opioid](#) use in patients. With acupuncture being commonly used outside of the hospital as an effective therapy for [pain](#) management and treatment for a range of health issues and symptoms, it's time to consider its benefits inside the hospital as well, Dr. Cheng said. "Additional research is needed to further define acupuncture's effects and encourage its use in all aspects of disease treatment."

Provided by American Society of Anesthesiologists

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