

'Gold standard' for pain relief after shoulder surgery may not be 24 karat

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Around 10,000 patients undergo shoulder surgery in Ontario every year and most go home the same day. Since it's quite a painful procedure, a lot of effort goes into making sure patients can manage their pain while at home recovering.

The current "gold standard" for [pain management](#) is a single shot of freezing such as [lidocaine](#) or ropivacaine to reduce pain during and after surgery, which is still performed under general anesthetic. Doctors had thought that this freezing, coupled with oral painkillers, would manage pain and keep patients comfortable for the first 24 to 48 hours after surgery.

But this may not be the case, according to a new study by Dr. Faraj Adballah, an [anesthesiologist](#) at St. Michael's Hospital, published online today in the journal *Anesthesia & Analgesia*.

Dr. Abdallah reviewed the results of all 23 randomized clinical trials, conducted between 1970 and 2014 and involving almost 1,100 patients, on the pain-relieving benefits and duration of the "single-shot interscalene blocks" standard care treatment.

He found:

- The single-shot nerve block provided [pain relief](#) for six to eight hours after surgery, significantly shorter than the 24 hours

- Between eight and 16 hours after surgery, patients who had the shot had almost similar pain to those who did not
- Between 16 and 24 hours, those who had the shot were slightly worse off than those who did not, a phenomenon known as rebound pain. This phenomenon has been described in studies about knee and ankle surgery, but never for [shoulder surgery](#).

Dr. Abdallah said there were several possible explanations for rebound pain, although that was not the focus of this paper. He said patients who get the nerve block may under-medicate when they get home, thinking they don't need to take their prescription [pain killers](#) despite instructions from their health-care team. Therefore, when the [freezing](#) wears off, they are at home, often asleep, and in such pain that some may go back to the hospital Emergency Department.

"The practical impact of this study is that strategies to prolong the duration of nerve blocks, especially on shoulder surgery, need to be incorporated in our practice," Dr. Abdallah said.

One option might be to use a disposable pump that dispenses pain medication into a catheter inserted near the nerves transmitting pain from the site of the surgery, which patients remove at home themselves. St. Michael's uses this Continuous Peripheral Nerve Block for some patients undergoing rotator cuff (shoulder) or foot and ankle surgery. This pump is used to provide pain relief up to 48 hours after surgery.

Provided by St. Michael's Hospital

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