

Chance of falling after knee replacement not increased by regional anesthesia

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The chance of falling is not increased by regional anesthesia. Credit: Photo: J.P. Rathmell

Two types of regional anesthesia do not make patients more prone to falls in the first days after having knee replacement surgery as some have previously suggested, according to a study based on nearly 200,000 patient records in the March issue of *Anesthesiology*.

Regional forms of anesthesia – spinal or epidural (neuraxial) anesthesia and peripheral nerve blocks (PNB) – which only numb the area of the body that requires surgery, provide better pain control and faster rehabilitation and fewer complications than [general anesthesia](#), research shows. But some surgeons avoid using them due to concerns [regional anesthesia](#) may cause motor weakness, making [patients](#) more likely to fall when they are walking in the first days after [knee replacement surgery](#).

"We found that not only do these types of anesthesia not increase the risk of falls, but also spinal or epidural anesthesia may even decrease the risk compared to general anesthesia," said Stavros G. Memtsoudis, M.D., Ph.D., professor of anesthesiology and public health and director of critical care services, Hospital for Special Surgery, New York, and lead author. "This work suggests that fear of in-hospital falls is not a reason to avoid regional anesthesia for orthopedic surgery."

Researchers analyzed the types of anesthesia used in 191,570 [knee replacement](#) surgeries in the Premier Perspective database: 76.2 percent of patients had general anesthesia, 10.9 percent had spinal or epidural anesthesia, and 12.9 percent had a combination of neuraxial and general anesthesia. In addition, 12.1 percent of all patients had PNB. Researchers then analyzed the type of anesthesia used for those who suffered a fall in the hospital. Of patients who had general anesthesia, 1.62 percent fell, compared to 1.3 percent of those who had neuraxial anesthesia and 1.5 percent who had general and neuraxial anesthesia. Patients who also received a PNB had a fall rate of 1.58 percent.

When patients fall during recovery, they are more likely to have worse outcomes, including more heart and lung problems and higher rates of death within 30 days of surgery. Spinal or epidural anesthesia and PNB are used far less often than general anesthesia because of concern that regional forms of [anesthesia](#) – particularly PNB – may increase muscle weakness and make patients more prone to falls. However, there has never been a large study based on real-world practices to determine if that is true.

"In this study using data from a wide range of hospital settings we found this concern seems unfounded, especially because hospitals and physicians performing these procedures use fall-prevention programs and are able to reduce the impact of other factors shown to increase fall risk,

such as higher narcotic use," said Dr. Memtsoudis.

Provided by American Society of
Anesthesiologists

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