

# Guideline: Monitoring spinal cord during surgery may help prevent paralysis

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The American Academy of Neurology is issuing an updated guideline that recommends monitoring the spinal cord during spinal surgery and certain chest surgeries to help prevent paralysis, or loss of muscle function, related to the surgeries. The guideline, which was developed with the American Clinical Neurophysiology Society, is published in the February 21, 2012, print issue of *Neurology*, the medical journal of the American Academy of Neurology and also in the *Journal of Clinical Neurophysiology*.

According to the guideline, strong evidence shows that monitoring the spinal cord during spinal surgery and certain chest surgeries, such as those performed to repair narrowing of the walls of the [aorta](#), can help prevent [paralysis](#) that can be related to the surgery. Also known as intraoperative monitoring, the procedure can alert the surgeon in time to find and address the problem before damage occurs.

"Paraparesis, paraplegia, and quadriplegia are potential serious complications of surgeries where the spinal cord is at risk," said guideline lead author Marc R. Nuwer, MD, PhD, of UCLA and a Fellow of the American Academy of Neurology. "Monitoring can help prevent damage by identifying problems early enough to allow for interventions. If intraoperative monitoring raises warnings, surgeons and [anesthesiologists](#) can modify the surgery to reduce the risk of these complications."

Intraoperative monitoring of the spinal cord involves monitoring of

somatosensory evoked potentials (SEPs) and motor evoked potentials (MEPs). The guideline found that in all cases where paralysis occurred, the patients had changes in their evoked potentials during the surgery, while there were no cases of paralysis in patients without any changes in their evoked potentials.

"The best way to treat paralysis is to prevent it in the first place," said Nuwer. "Spinal cord monitoring supervised by a [neurologist](#) can help meet this goal."

**More information:** Learn more about this latest guideline and spinal cord injury at [www.aan.com/patients](http://www.aan.com/patients)

Provided by American Academy of Neurology

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