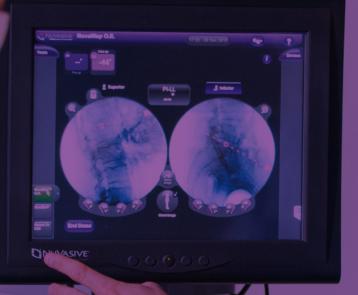


Advancing patient care and reducing neural risk



NuVasive Clinical Services (NCS) is committed to advancing patient care and reducing risks to help prevent neural injuries in surgery. As one of the largest intraoperative neuromonitoring (IOM) providers in the country, we support surgeons with best-in-class technology and a highly trained clinical team that help enable improved patient outcomes.



In a growing marketplace, the variance in technology and quality of care is vast—finding a partner you can trust is critical. The third most common complication of spine surgery is nerve injury.¹



The value of IOM

Helping protect you and your patients

IOM offers insight into the nervous system during spine, peripheral nerve, vascular and brain-related surgeries. IOM facilitates the surgical process and can reduce surgical risk by providing critical information and alerts to surgeons of potential harm or compromise to the spinal cord or neural structures.

The harsh reality of nerve and spinal cord injury

Injury to the nervous system can be profound for both the patient and healthcare provider.

For the healthcare provider, it can mean:

- poor clinical outcomes,
- a damaged reputation,
- increased medicolegal risk,
- increased length of patient stay by several days,²
- unnecessary added costs,³ and
- reduced patient satisfaction scores, which are increasingly tied to reimbursements.

IOM enables less risk, better decision making and ultimately, better patient care.

The NCS difference

- Best-in-class technology
- Highly trained practitioners
- Integrity and ethics
- Accountability through reporting
- Customized partnerships to meet your needs
- Coverage you can count on

Our ability to advance care extends beyond IOM services and includes clinical support for NuVasive enabling technology platforms.

Together with NuVasive, we tailor customer offerings to help drive value for hardware, biologics and more, positively impacting your clinical and operational goals.

NVM5

One device, multiple technologies

NVM5 combines IOM and other surgical technologies into a single platform, specifically designed to support the unique requirements of spine surgery.

IOM

- Free run electromyography (EMG)
- Dynamic/XLIF EMG
- Somatosensory evoked potentials (SSEP)
- Transabdominal muscle action potential (TMAP)
- Remote monitoring
- Motor evoked potentials (MEP)

Other enabling technologies

- Integrated Global Alignment (iGA)
- Bendini



Rod bending



Intraoperative alignment assessment



TMAP monitoring





Screw test and nerve monitoring

200 metam 1



XLIF monitoring

Benefits of NVM5

Expediting surgical workflow

- Small footprint; all-in-one design
- Fast OR setup and quick room turns
- Automation of manual tasks
- Procedurally integrated

Advancing patient care

- Standardized, clinically supported alerts
- Surgeon-directed information and control
- Proactively identifies potential neural injury
- Preserves spinal alignment; reduces residual screw pullout forces⁴

Improving surgical economics

- Efficient maximum access surgery (MAS) procedures with lower OR costs and faster patient recovery⁵⁻⁷
- Minimizes scope of surgery, revision and waste
- Multiple technologies in one platform

Pulse

Looking ahead to the future

In addition to the NVM5 platform, NuVasive has developed a single integrated technology platform in Pulse. Pulse integrates multiple enabling technologies to improve workflow, reduce variability and increase the reproducibility of surgical outcomes.*

The NuVasive purpose is to **transform outcomes** through best-in-class surgical technology.

Under our parent company, NCS is able to **integrate services and technology** to support positive surgical outcomes.





Multi-modality monitoring

Using a diversity of **proprietary or third-party platforms**, NCS employs technology to facilitate the physiological assessment of neural structure integrity and to map neural anatomy during complex procedures—even beyond spine. In addition to standard modalities, NCS can fulfill advanced modalities including:

- cortical and subcortical motor mapping,
- sensory mapping,
- language mapping,
- peripheral nerve monitoring and functional assessment,
- rhizotomy,
- brainstem auditory evoked responses (BAER),
- visual evoked potentials (VEP),
- cranial nerve monitoring and mapping,
- intraoperative electroencephalography (EEG),
- cortical perfusion monitoring,
- direct (D) wave monitoring,
- dorsal column mapping to locate physiologic midline, and
- microelectrode recordings (MER) during DBS.

NCS can monitor the following cases:

- orthopedic spine,
- neurosurgical spine,
- ENT/otolaryngology,
- orthopedic/joints,
- intracranial/brain,
- interventional neuroradiology,
- vascular,
- peripheral neurosurgery, and
- functional neurosurgery/neuromodulation.

Coverage you can count on

Anytime, any day, anywhere

Covering more than **100,000 cases annually**, NCS is among the largest providers of IOM services in the country. This means we're set up with a robust infrastructure to support your case needs.

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Available 24 hours a day, 7 days a week across 46 states.

Highly trained neurophysiologists

Committed to clinical excellence

NCS maintains a rigorous training and education program for our neurophysiologists (NPs) and is proud to have earned accreditation by The Joint Commission, a recognized standard for supporting competency and quality of care.



More than 500 NPs and dozens of board-certified oversight neurologists



Nationally recognized Certification for Neurophysiologic Intraoperative Monitoring (CNIM), or CNIM eligible



Cross trained on NVM5, Pulse and traditional systems



See our NPs in action at **#MeetTheNP**

Integrity and ethics

Standing apart from the headlines

Guided by our core values of integrity and transparency, the NCS reach goes beyond the OR—from standardized billing practices to clinical efficacy reporting and more.

We have well-established workflows and professional teams in place to:

- support compliant third-party billing,
- establish in-network and third-party agreements,
- offer patient support and information, and
- educate surgical teams about optimizing IOM.

Accountability through reporting

The visibility you need

Thanks to our scale, and a commitment to transparency and improvement, NCS leverages detailed reports on case **performance, safety and actionable data** to promote quality improvement.

Reporting includes:

Performance	Staffing
	Utilization
	 Procedure types
	Case coverage and attendance
Safety	• Injury
	 Technical issues
	preventing monitoring
Actionable data	 Monitoring data reported
	to surgical team

Customized partnerships to meet your needs

NCS understands every healthcare facility is unique, so we offer customized packages to meet your varying needs.

Comprehensive service

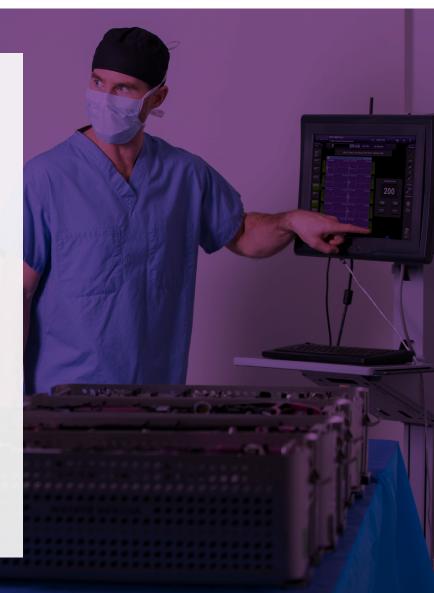
Single source provider for IOM and surgical hardware

- Flat case rates for standard modalities; improves cost forecasting
- Value pricing based on case volume with additional savings for long-term and exclusive status
- Diversified platforms available
- Savings on NVM5 platform with NCS service

Alternate pricing and contracting options are available. Contact your NCS representative for details.

Partner with us

Contact our team at **+1 800.638.7564** or visit us online at **nuvasive.com/ncs**



References

- 1. Haid R, Schwab F, Shaffrey C, Youssef J. Global Spinal Alignment. St. Louis: Quality Medial Publishing, Inc.; 2015.
- 2. Yadla S, Ghobrial GM, Campbell, et al. Identification of complications that have a significant effect on length of stay after spine surgery and predictive value of 90-day readmission rate. *J Neurosurg Spine* 2015;23(6):807-11.
- 3. Kalish RL, Daley J, Duncan CC, et al. Costs of potential complications of care for major surgery patients. AM J Med Qual 1995;10(1):48-54.
- 4. Tohmeh AG, Isaacs RE, Dooley ZA, et al. Long construct pedicle screw reduction and residual forces are decreased using a computer-assisted rod bending system. *J Spine Neurosurg* S2 2014.
- 5. Lehmen JA, Gerber EJ. MIS lateral spine surgery: A systematic literature review of complications, outcomes, and economics. *Eur Spine J* 2015;24(3):S287-313.
- 6. Goldstein CL, Phillips FM, Rampersaud YR. Comparative effectiveness and economic evaluations of open versus minimally invasive posterior or transforaminal lumbar interbody fusion. *Spine* 2016;41(8S):S74-89.
- 7. Uribe JS, Deukmedjian AR. Visceral, vascular, and wound complications following over 13,000 lateral interbody fusions: a survey study and literature review. *Eur Spine J* 2015;24(3):S386-96.
- Rothenfluh DA, Mueller DA, Rothenfluh E, et al. Pelvic incidence-lumbar lordosis mismatch predisposes to adjacent segment disease after lumbar spinal fusion. Eur Spine J 2015;24(6):1251-8.



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* Certain applications of the Pulse platform are under development and not available for commercial sale; robotics and smart tools are not cleared for use by the FDA.

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