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X360 SPS

X360 SPS is a comprehensive approach to lateral single-position surgery enabled by a combination of less invasive procedural solutions XALIF, XLIF, XLIF Crestline and XFixation. The ability to bring these approaches into an efficient operative workflow while keeping the patient in a single position allows surgeons to craft patient-specific treatment plans for pathologies across the thoracolumbar spine.

X360 SPS clinical summary

The implementation of X360 SPS has the potential to activate a wide variety of efficiencies for surgeons and hospitals, all without compromising the postoperative alignment or clinical goals of surgery.¹⁻⁶ The current literature surrounding X360 SPS reflects reduction in OR time, shorter hospital stays, less time under anesthesia for patients, improved efficiencies and workflows in the OR for surgeons, reduction in perioperative costs for the hospital, reduction in postoperative ileus complications with the utilization of XALIF, and the removal of complications associated with intraoperative flips and the inherent complications possible with prone patient positioning.¹⁻¹¹ Continue reading for more data-based research, and a list of journal articles related to single-position lumbar surgery. NuVasive believes the support of strong clinical validation is vital to advancing care for patients and continues to support further research in this area.

Highlights of X360 SPS

- Reduce time under anesthesia.¹⁻³
- Reduce intraoperative complication risk profile.⁷⁻⁹
- Reduce length of hospital stay by more than 50%.^{1,2}
- Reduce up to 200 minutes of OR time.¹
- Reduce hospital costs by an average of \$80 per minute and up to \$16,000 per patient.^{1,10,11}

X360 SPS clinical data highlight¹

Single-position circumferential fusion improves operative efficiency, reduces complications and length of stay compared with traditional circumferential fusion.

Purpose: Assess the perioperative safety and efficacy of single-position AP lumbar fusion surgery (SPLS).

Methods: Patients undergoing primary ALIF and/or LLIF surgery with bilateral percutaneous pedicle screw fixation between L2–S1 were included over a 4-year period. Patients were classified as either traditional repositioned “Flip” surgery or SPLS. Outcome measures included levels fused, percentage of cases including L5–S1 fusion, fluoroscopy radiation dosage, OpTime, EBL, LOS, and perioperative complications. Radiographic analysis included LL, pelvic incidence, pelvic tilt, and segmental LL. All measures were compared using independent samples t-tests and chi-squared analyses as appropriate with significance set at $p < 0.05$. Propensity matching was completed where demographic differences were found.

Findings: Three hundred and ninety patients undergoing AP surgery were included, of which 237 underwent SPLS and 153 were in the Flip group. Age, gender, BMI and CCI were similar between groups. Levels fused and percent cases including L5–S1 were similar between cohorts. SPLS significantly reduced OpTime, EBL, LOS and fluoroscopy radiation dosage compared to Flip. Perioperative complications were similar between cohorts with the exception of postoperative ileus, which was significantly lower in the SPLS group. There was no significant difference in wound, vascular injury, neurological complications or Venous Thrombotic Event. There was no significant difference found in 90-day return to OR.

Significance: *One of the first multicenter studies with a large patient cohort to show the clinical efficacy of X360 SPS. This study reflects improvement in operative time, estimated blood loss, length of stay, fluoroscopy radiation dosage and the rate of postoperative ileus, while maintaining safety compared to more traditional flip based surgery.*

Learn more about X360 SPS
at [nuvasive.com/X360](https://www.nuvasive.com/X360)

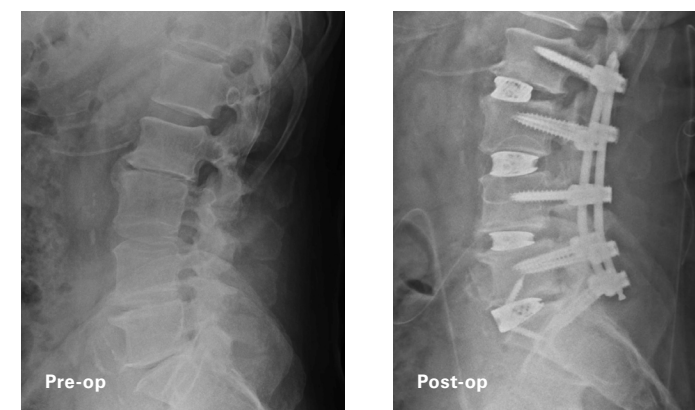
X360 case examples

L2–S1 (Courtesy of Dr. J Alex Thomas)

Patient: 74-year-old male with history of low back pain and lower extremity weakness.

Diagnosis: Degenerative scoliosis with foraminal and central stenosis from L2–L3 to L5–S1.

Surgical intervention: X360 SPS with XLIF at L2–L5, XALIF at L5–S1, and bilateral percutaneous pedicle screws placed in the lateral position (XFixation) L2–S1. The surgery was supplemented by the NuVasive Pulse platform.

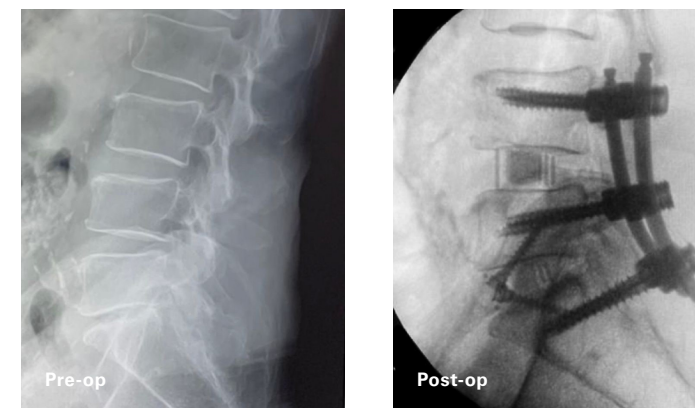


L4–S1 (Courtesy of Dr. Cristiano Menezes)

Patient: 80-year-old male with history of low back pain and left sided leg pain.

Diagnosis: Degenerative disc disease with foraminal stenosis at L4–L5 and L5–S1.

Surgical intervention: X360 SPS with XLIF at L4–L5, XALIF at L5–S1, and bilateral percutaneous pedicle screws placed in the lateral position (XFixation) L4–S1. The surgery was supplemented by NVM5 neuromonitoring.



NuVasive Clinical Professional Development (CPD)

The NuVasive CPD program focuses on surgeon development through the design and delivery of innovative clinical education programs. By using modern education principles, competency-based curriculum, and multi-modal learning pathways, the CPD team and its dedicated surgeon faculty provide an unparalleled learning experience for surgeons and their staff around the globe.

For more information on a hands-on experience with X360 SPS, contact the NuVasive CPD team at [nuvasive.com/CPD](https://www.nuvasive.com/CPD)

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