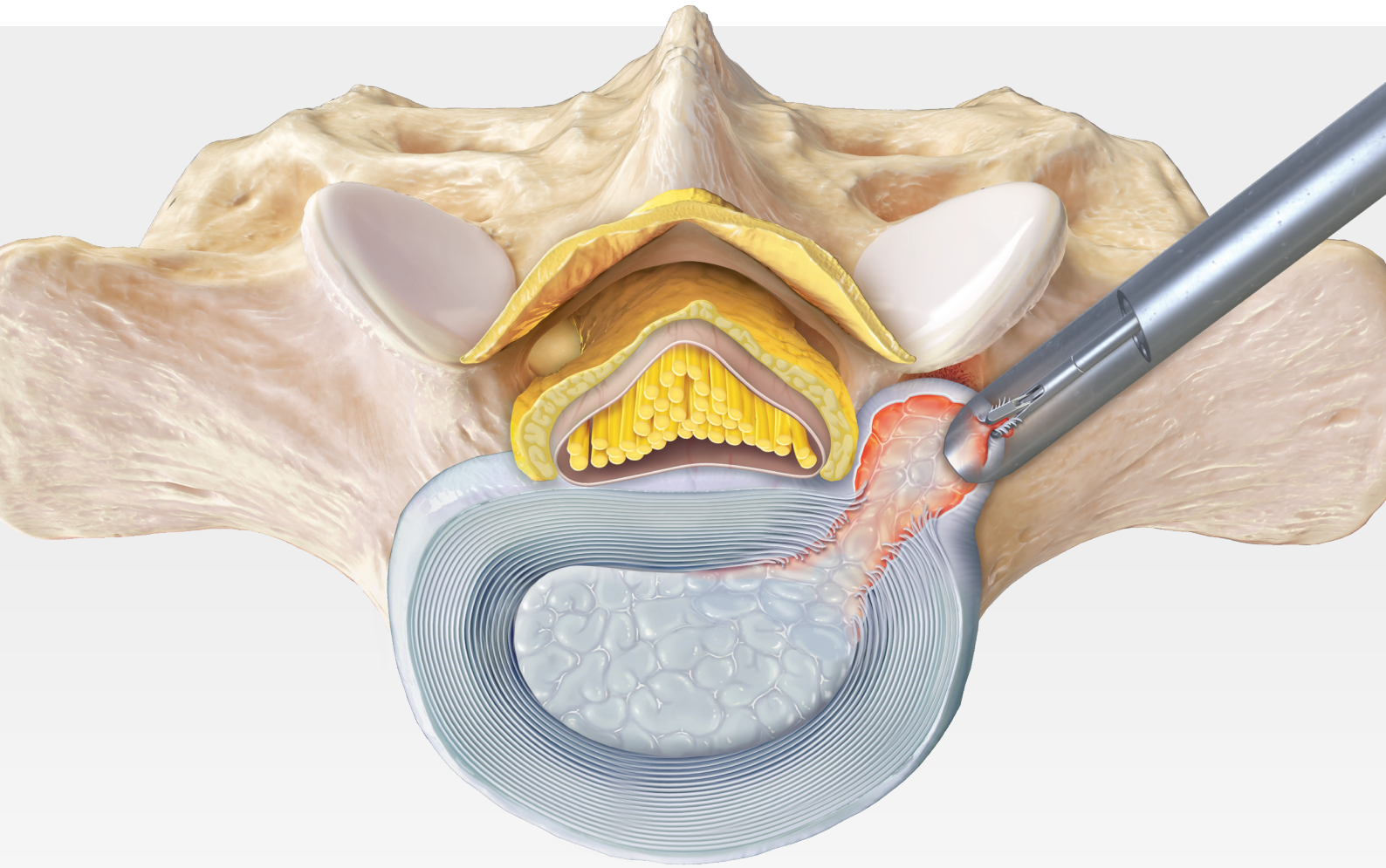
Far Lateral Transforaminal Lumbar Discectomy

Endoscopic Surgical Technique



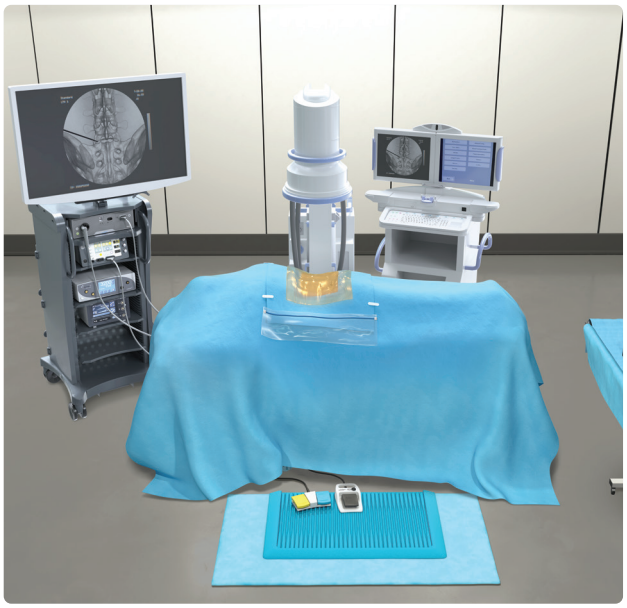
Arthrex®

Endoscopic Approach to Far Lateral Transforaminal Lumbar Discectomy

Introduction

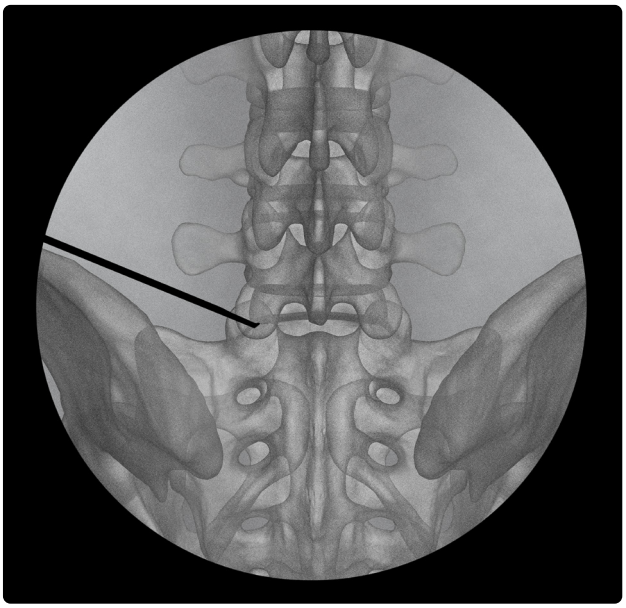
The ultra-minimally invasive endoscopic approach to treating far lateral disc herniations provides direct access to the far lateral zone with minimal or no bony resection. In contrast to challenges posed by traditional open approaches, the far lateral transforaminal endoscopic technique utilizes a spine-specific endoscope for targeted access and visualization. The Synergy imaging system, combined with ergonomic instruments, delivers advanced technology to support the treatment of this pathology.

- WishBone™ handle combines ergonomics, efficiency, and control
- Synergy integration and imaging optimize visualization
- Depth stop and cannula holder allow for improved control of the endoscope and cannula
- Premium instruments are available with a ceramic coating



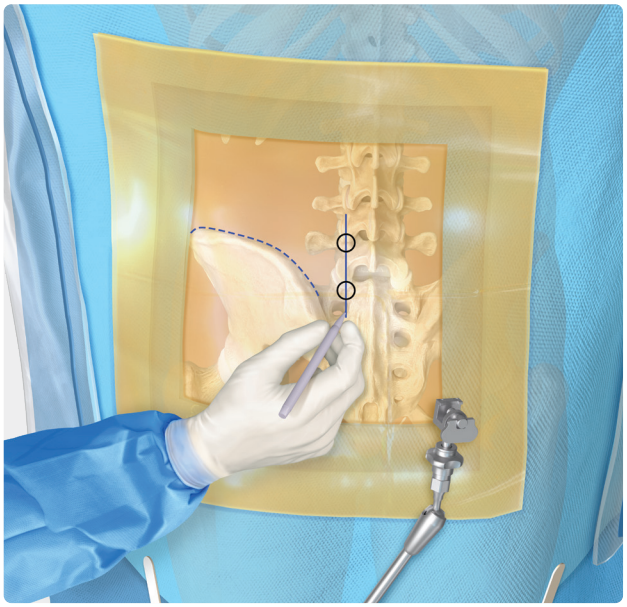
1

Patient Positioning and OR Setup
With the patient prone and their arms extended, position the C-arm across from the surgeon with the video monitor at the head and the C-arm monitor at the foot of the bed.



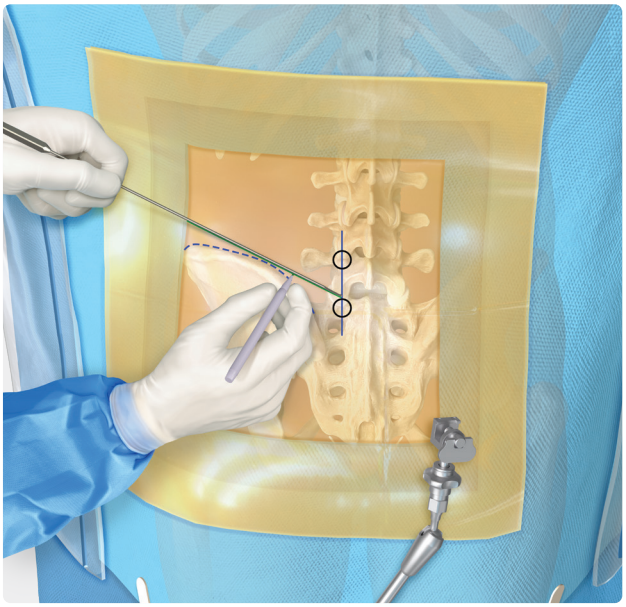
2

Targeting
Use AP and lateral fluroscopic views to target and confirm the correct level is being treated.



3

AP Marking
Obtain an AP view of the S1 endplate. Identify and mark the iliac crest and the midline of the L5 and S1 pedicles.



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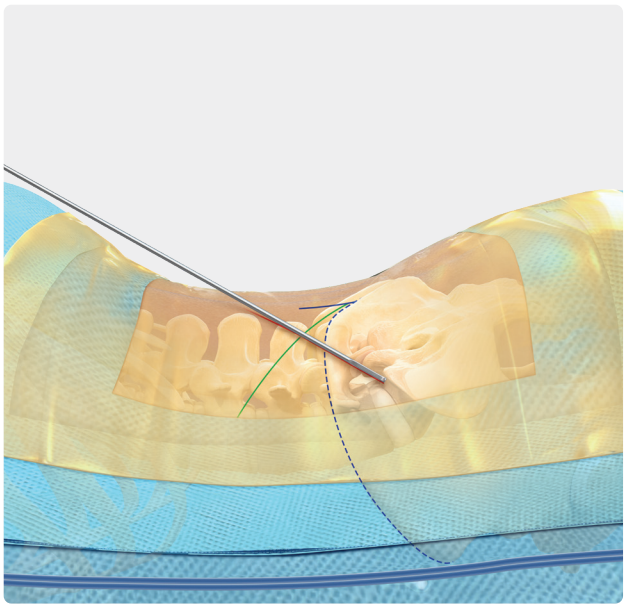
Oblique Line
With a blunt dissector, mark an oblique line extending cranially from the midpedicular line of the S1 pedicle, positioned cranial to the iliac crest shadow.



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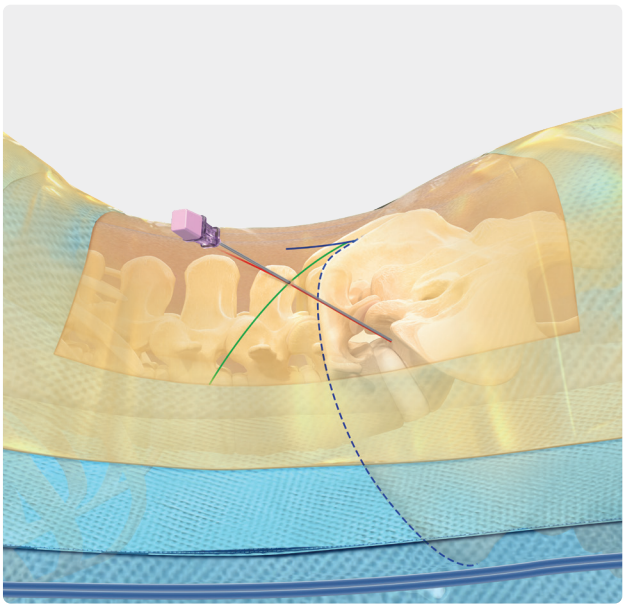
Lateral Marking
Mark a line starting at the junction of the S1 pedicle and endplate. Ensure the trajectory passes through the pars interarticularis, cranial to the L5-S1 facet joint and caudal to the L5 traverse process.



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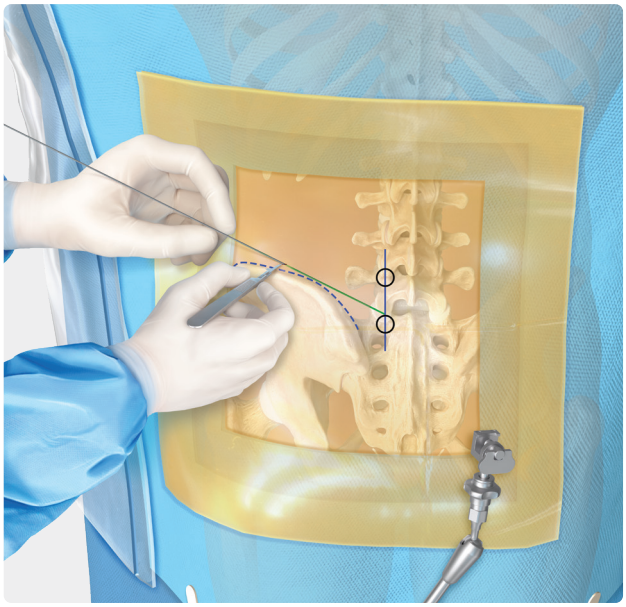
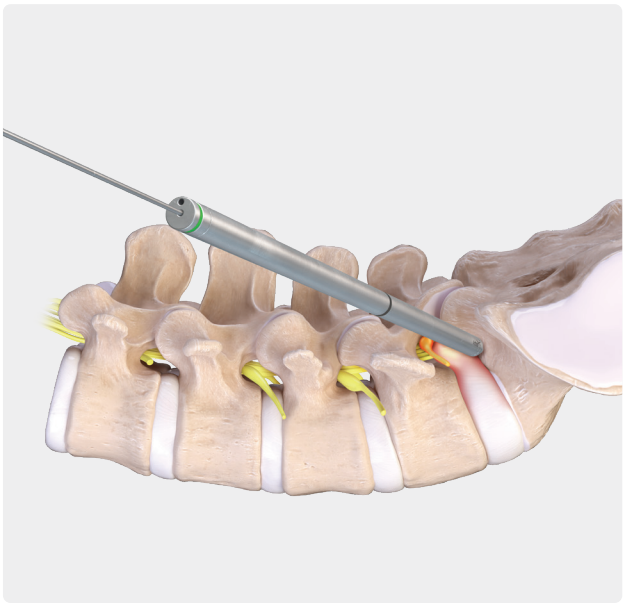
Needle Placement
Use the intersection of the oblique and lateral lines as the needle insertion point, targeting the 12 o'clock position of the S1 pedicle using lateral and AP to confirm.



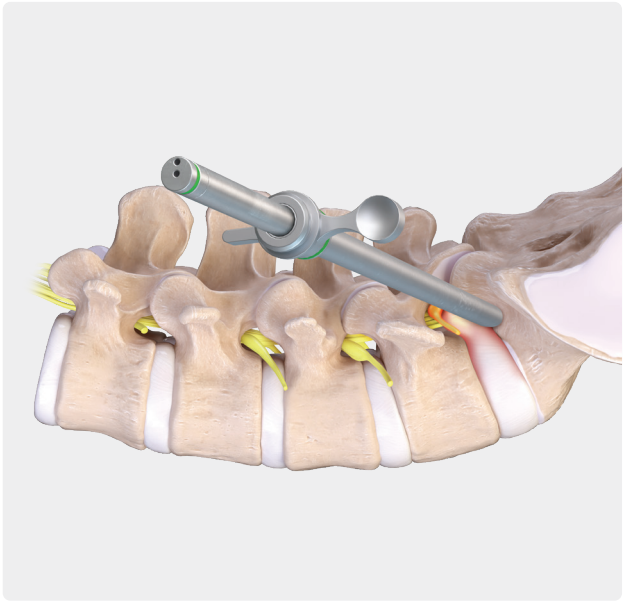
7

Incision
Remove the stylet and insert the guidewire. Use a #11 or #15 blade to create an incision <1 cm in length through the skin and fascia to accommodate the outer diameter of the dilators and working cannula.



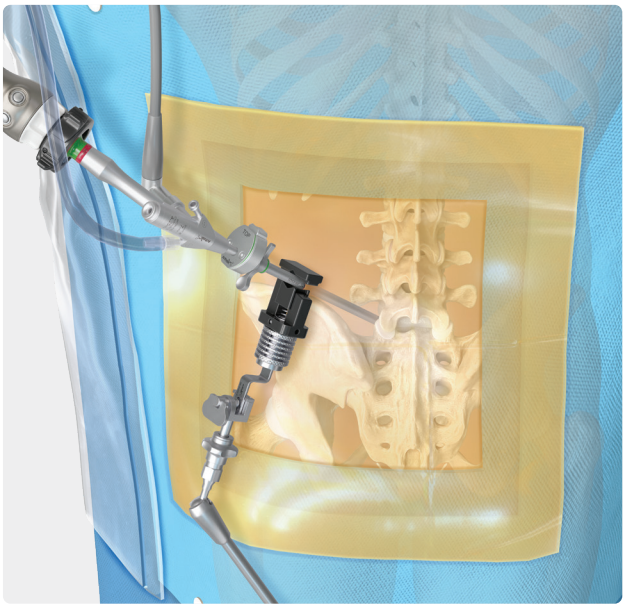
8

Dilating
Advance the sequential dilators stick over the guidewire while rotating. Alternatively, a single step dilator can be used.



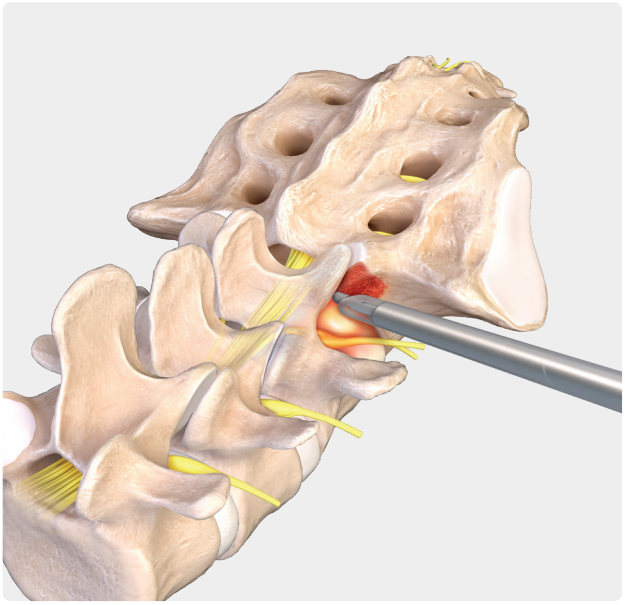
9

Docking
Insert the cannula over the dilators or switching stick while maintaining the opening of the bevel cranial toward the exiting nerve root. Rotate the cannula clockwise for left-sided approaches and counterclockwise for right-sided approaches, protecting the exiting nerve root with the long side of the cannula.



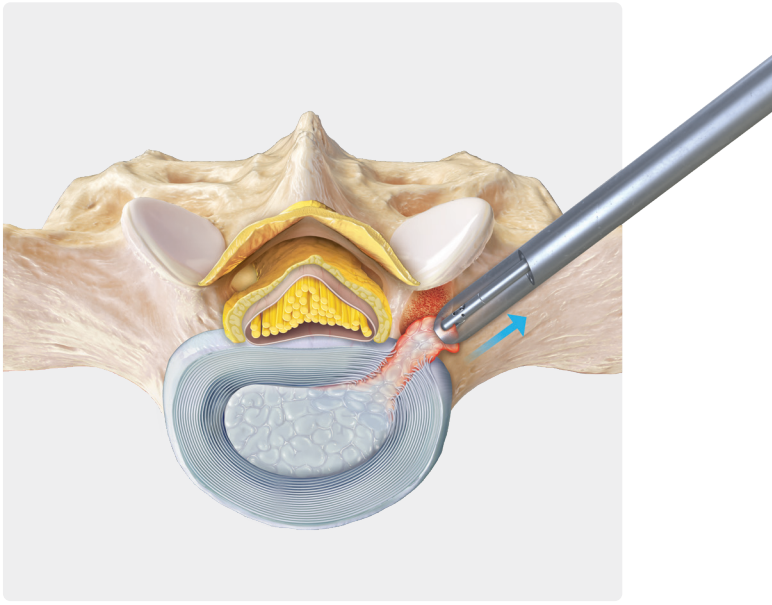
10

Set Up and Insert the Endoscope
With the TRIMANO® arm holder attached to the bed via a bed rail adapter, connect the cannula holder to the cannula. Attach the light cord, camera, irrigation, and depth stop to the endoscope. Following removal of the dilators or switching stick, insert the endoscope into the cannula.



11

Access
Depending on the anatomy, trephines, rasps, and/or burs can be used to resect the ventral portion of the S1 superior articular process (SAP) and/or the S1 pedicle to widen the foraminal working space.



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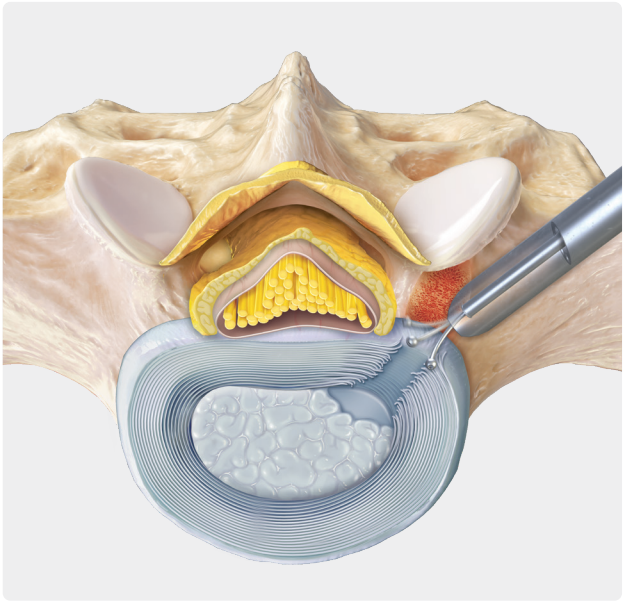
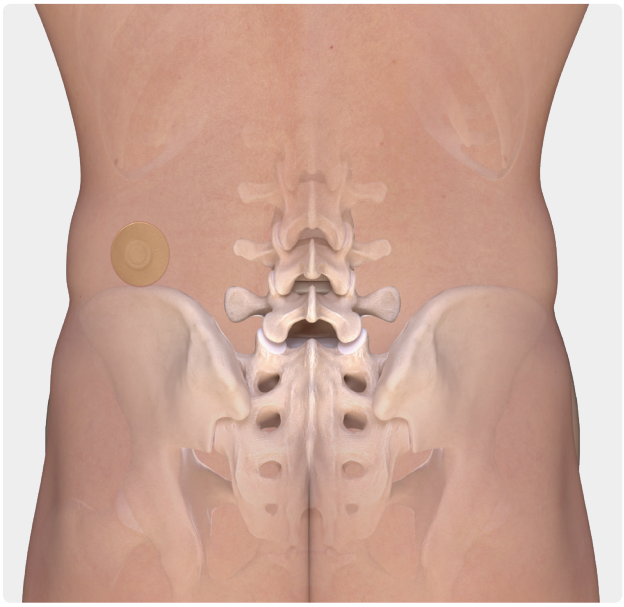
Decompression
Use endoscopic tools like graspers and the FlexTip RF probe to remove excess tissue, provide visualization, coagulate blood vessels, access the disc pathology, and decompress the affected elements.



13

Assess
Use a ball-tip probe along with direct visualization to ensure all fragments have been removed and the discectomy and decompression are complete prior to removing the cannula.



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Complete Procedure
Remove the endoscope and cannula, and close the incision. Apply JumpStart® antimicrobial wound dressing.

Ordering Information

Spine endoscopic case, large	AR-S1000-C1
Spine endoscope case	AR-S1000-C3
Dilator, 2.5 mm × 230 mm	AR-S6524-025-230
Dilator, 4.1 mm × 220 mm	AR-S6524-041-220
Dilator, 5.1 mm × 210 mm	AR-S6524-051-210
Dilator, 6.0 mm × 200 mm	AR-S6524-060-200
Dilator, 7.1 mm × 190 mm	AR-S6524-071-190
Switching stick, 7 mm × 225 mm	AR-S3020-070-225
Cannula w/ oblique window, 8.0 mm × 178 mm	AR-S3420-080-178
Spine endoscope, 7.0 mm × 181 mm, 30°	AR-S3350-7030-181
Cup forceps, 2.5 mm × 330 mm	AR-S7110-025-330
Cup forceps, up angle, 2.5 mm × 330 mm	AR-S7110-025U-330
Blakesley forceps, 3.5 mm × 330 mm	AR-S7118-035-330
Scissor punch, 2.5 mm × 330 mm	AR-S7116-025-330
Scissor punch, up angle, 2.5 mm × 330 mm	AR-S7116-025U-330
Blunt dissector, 2.5 mm × 310 mm	AR-S1342-025-310
Hook probe, 2.5 mm × 310 mm	AR-S10030-025-310
Kerrison ball-tip probe, handle	AR-S7400-000-000H
Ball-tip probe shaft, flexible, 1.8 mm × 330mm	AR-S7405-018-330
Kerrison, 3.5 mm × 360 mm, 40°	AR-S7440-035-360
Kerrison, 4.0 mm × 360 mm, 40°	AR-S7440-040-360
Dilator holder	ML-0057
FlexTip RF probe, 35 cm	AR-S9805-0035
Spine Access Kit, disposable	AR-S4000K-S
Coarse diamond oval bur, retractable, 3 mm × 330 mm	AR-SOV-R30-330CD
Oval bur, retractable, 3 mm × 330 mm	AR-SOV-R30-330
JumpStart® antimicrobial wound dressing, 2.5 in	ABS-4054

See product catalog for full product listings. Instruments dependent on surgeon preferences and pathology.

This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes.

Arthrex manufacturer, authorized representative, and importer information (Arthrex eIFUs)

US patent information

arthrex.com