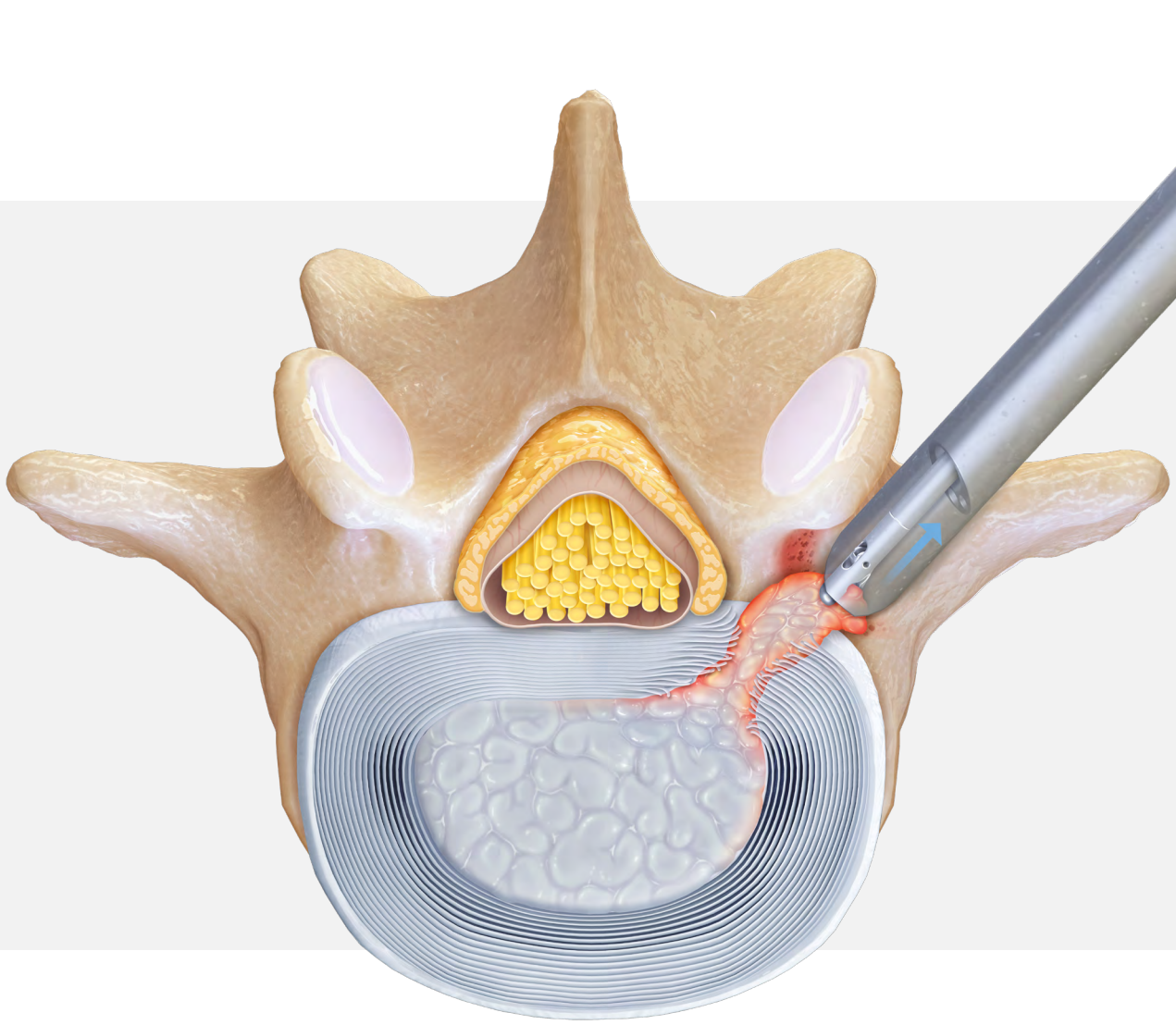
Lumbar Transforaminal Discectomy

Endoscopic Surgical Technique



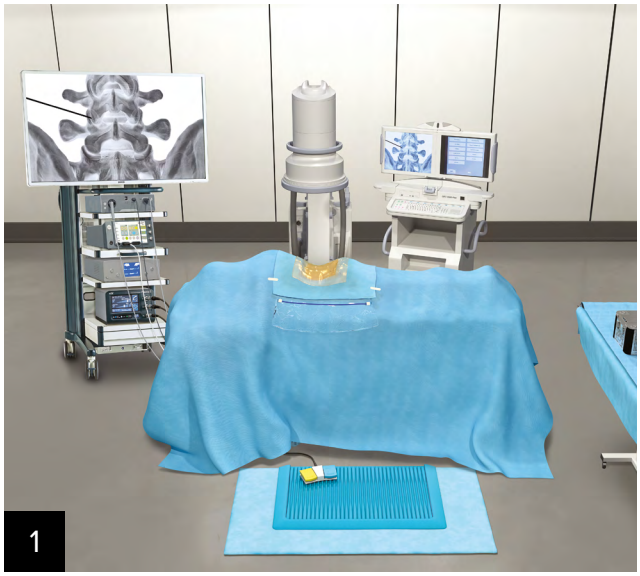
Arthrex®

Endoscopic Approach to Lumbar Transforaminal Discectomy

Introduction

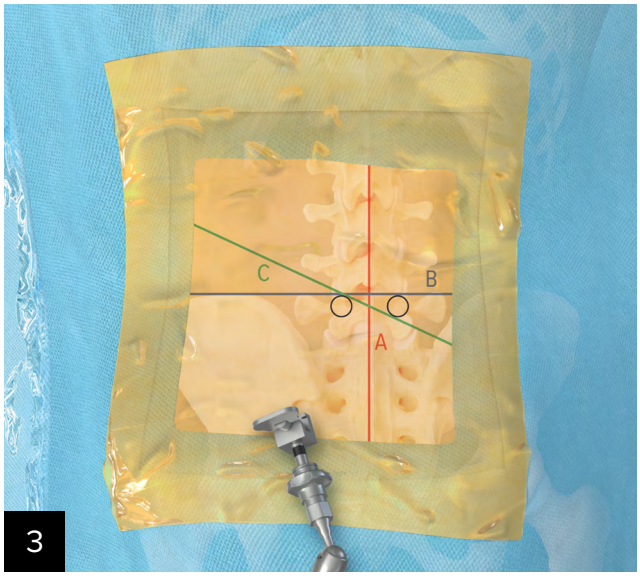
The endoscopic approach to lumbar transforaminal discectomy is an ultra-minimally invasive surgery during which an endoscope is used for access and visualization. In conjunction with ergonomic instruments, the Synergy imaging system provides innovative technology to treat this pathology.

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

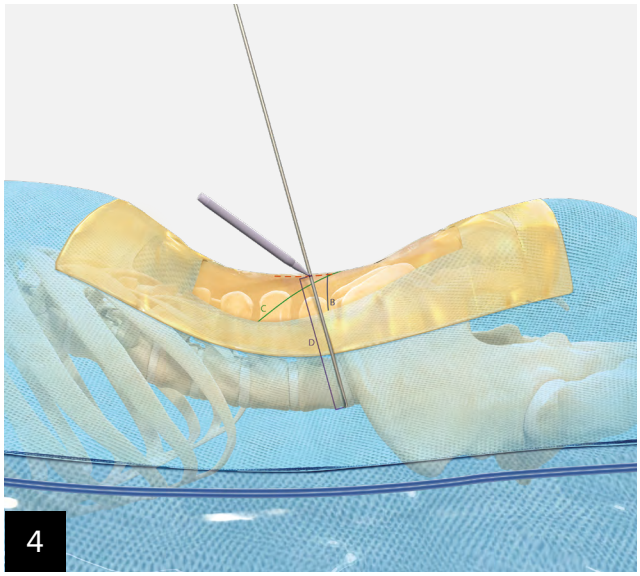


Patient Positioning and OR Setup
With the patient prone and their arms extended, position the C-arm across from the surgeon with the video monitor at the head and the C-arm monitor at the foot of the bed.

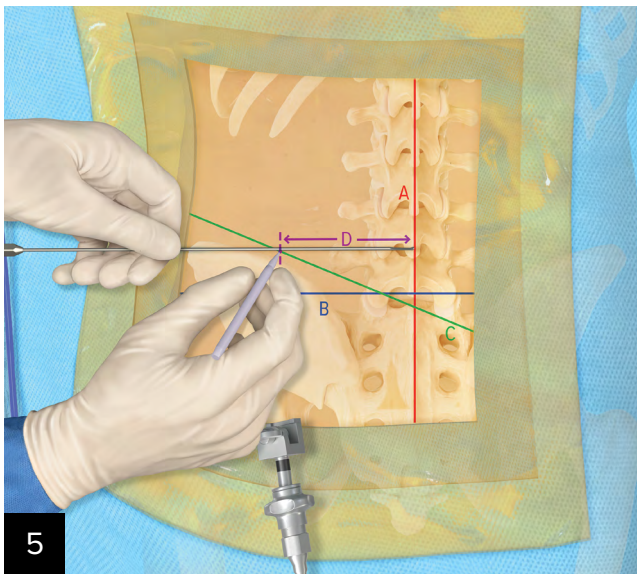
Targeting
Use AP and lateral views to target and confirm the correct level is being treated.



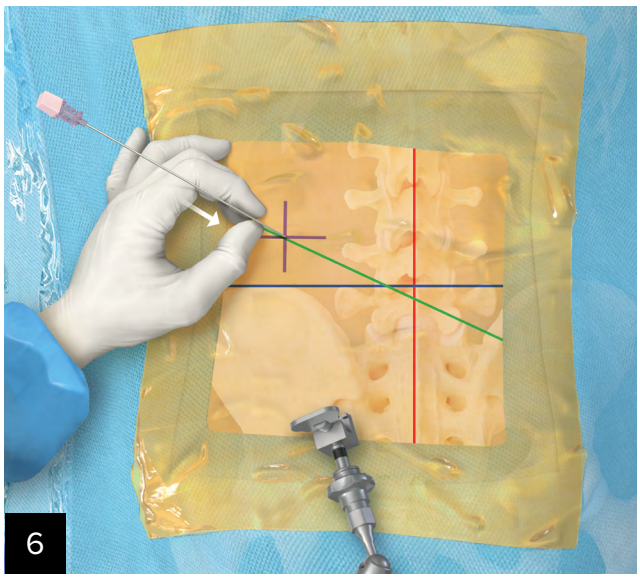
AP Targeting
Mark the midline (A). Mark a line on the skin through the center of the disc space (B). Mark a line along the bottom of the contralateral pedicle to the top of the ipsilateral pedicle (C).



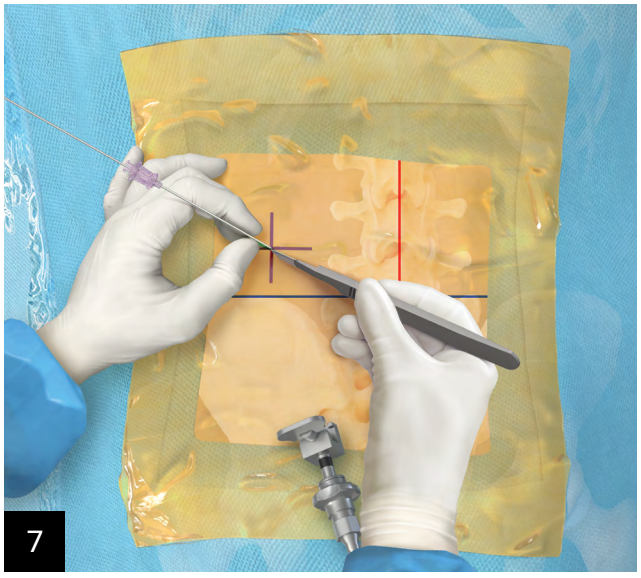
Lateral Targeting
Place an instrument vertically with its tip at the front of the disc space in line with the end plates. Mark a line on the instrument at the level of the dorsal skin surface (D).



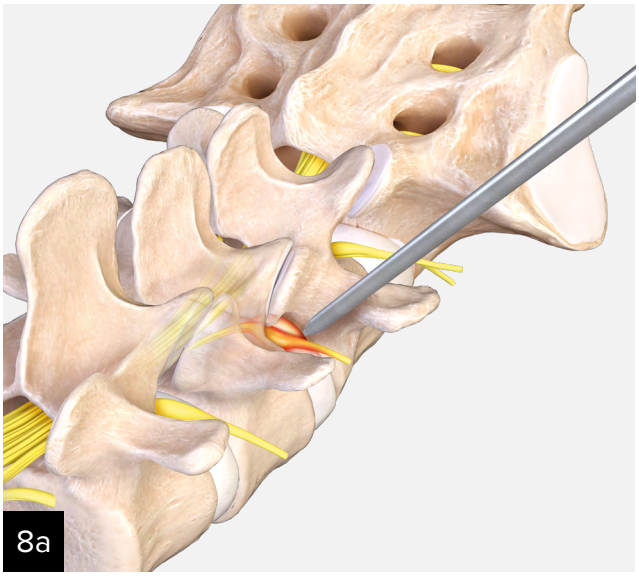
Incision Marking
With the instrument tip on the midline, mark the distance (D) from the midline to the line on the instrument at the intersection of the oblique pedicle line (C). This is the incision point.



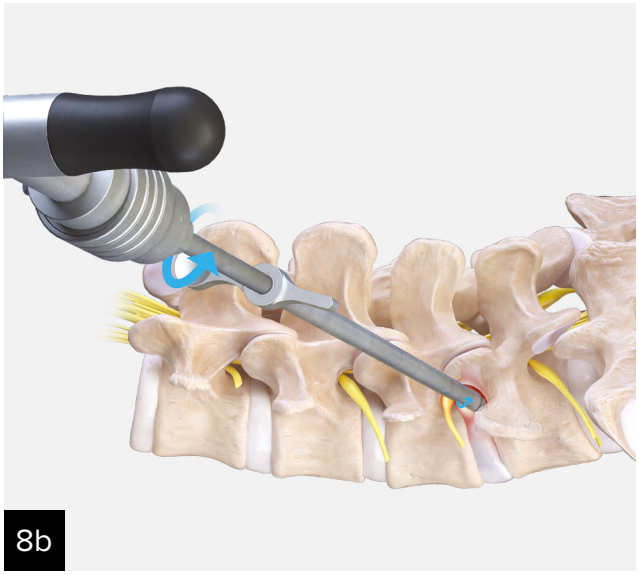
Needle Placement
Insert the needle at the incision point using AP and lateral views to avoid neural structures. Target Kambin's triangle at the intersection of the inferior level's superior articular process (SAP), pedicle, and the back of the inferior level's vertebral body, making sure to not cross the medial border of the pedicle with the needle on an AP view.



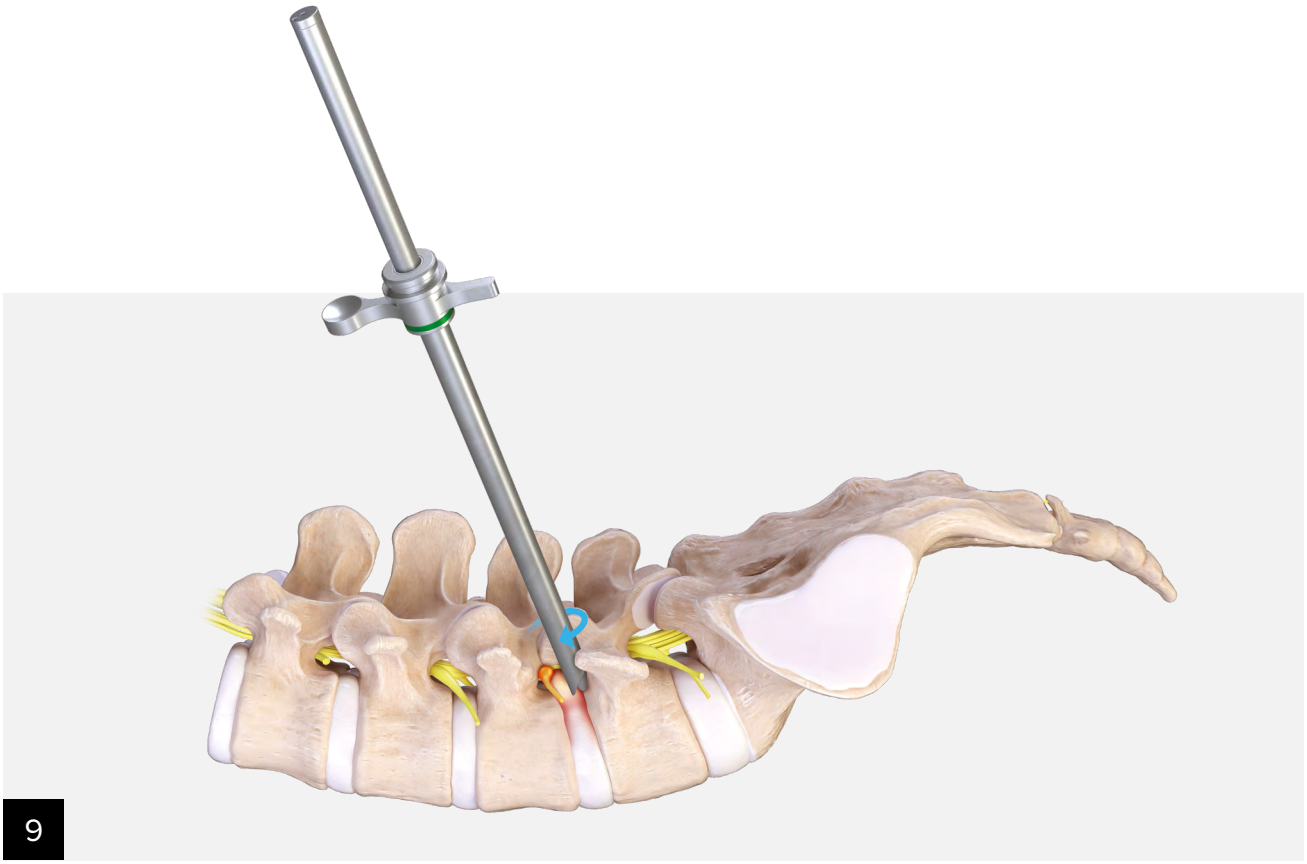
Incision
Remove the stylet, insert the guidewire, and make an incision through the skin and fascia to accommodate the outer diameter of the dilators and working cannula.



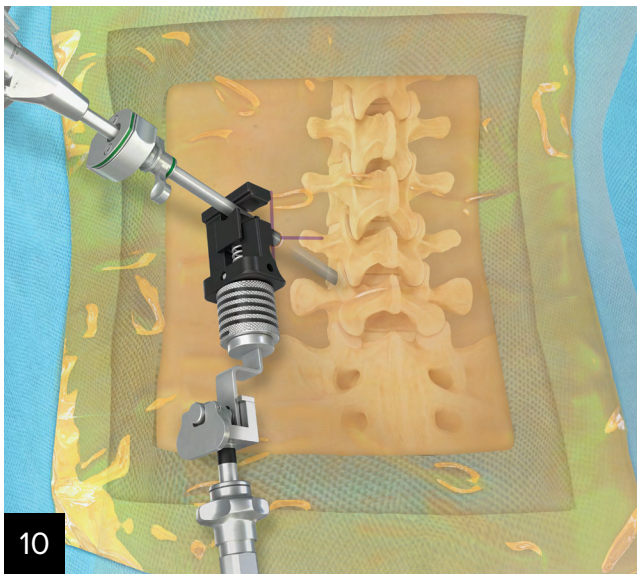
Dilating
Place the sequential dilators over the guidewire while rotating.



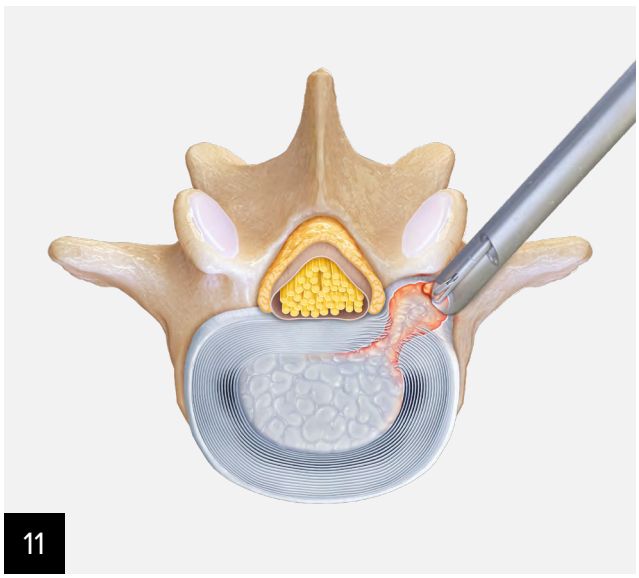
Based on surgeon preference, trephines and rasps may be used to remove soft tissue and bone, enlarging the foramen to accommodate the diameter of the working cannula and endoscope.



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.

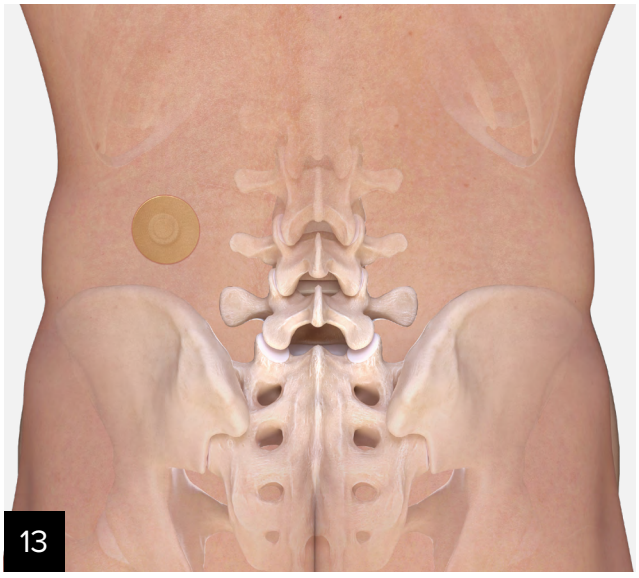


Cannula Holder and Depth Stop
With the TRIMANO® arm holder attached to the bed via a bed rail adapter, connect the cannula holder to the cannula. Attach the light cord, camera, irrigation, and depth stop to the endoscope. Following removal of the switching stick or dilators, insert the endoscope into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



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.

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.



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

Ordering Information

Product Description	Item Number
Spine endoscope case	AR-**S1000-C3**
Spine endoscope case, large	AR-**S1000-C1**
Switching stick, 7 mm × 225 mm	AR-**S3020-070-225**
Spine endoscope, 7 mm × 181 mm, 30°	AR-**S3350-7030-181**
Cannula w/ elevator tip, 8 mm × 178 mm	AR-**S3420-080-178ET**
Guidewire, nitinol, 0.8 mm × 400 mm	AR-**S4000-008-400**
Dilator, 2.5 mm × 230 mm	AR-**S6524-025-230**
Dilator, 4.1 mm × 220 mm	AR-**S6524-041-185**
Dilator, 5.1 mm × 210 mm	AR-**S6524-051-170**
Dilator, 6 mm × 200 mm	AR-**S6524-060-160**
Dilator, 7.1 mm × 190 mm	AR-**S6524-071-185**
Trephine handle	AR-**S7700-000-000H**
Trephine, 3.55 mm × 350 mm	AR-**S7705-035-350**
Trephine, 5.1 mm × 225 mm	AR-**S7705-051-225**
Trephine, 6.6 mm × 225 mm	AR-**S7705-066-225**
Trephine, 7.6 mm × 225 mm	AR-**S7705-076-225**
Rod pusher, 2.5 mm	AR-**S6524-025-230P**
Rod pusher, 4 mm	AR-**S6524-040-230P**
Rod pusher, 5 mm	AR-**S6524-050-230P**
Cup forceps, up angle, 2.5 mm × 330 mm, WB	AR-**S7110-025U-330W**
Cup forceps, 3 mm × 330 mm, WB	AR-**S7110-030-330W**
Cup forceps, 2.5 mm × 330 mm, WB	AR-**S7110-025-330W**
Scissor punch, 2.5 mm × 330 mm, WB	AR-**S7116-025-330W**
Scissor punch, up angle, 2.5 mm × 330 mm, WB	AR-**S7116-025U-330W**
Kerrison/ball-tip probe, handle, WB	AR-**S7400-000-000W**
Ball-tip probe, shaft, flexible, 1.8 mm × 330 mm	AR-**S7405-018-330**
FlexTip RF probe, 35 cm	AR-**S9805-0035**
Spine Access Kit, disposable	AR-**S4000K-S**

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 and/or outcomes.

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

US patent information

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