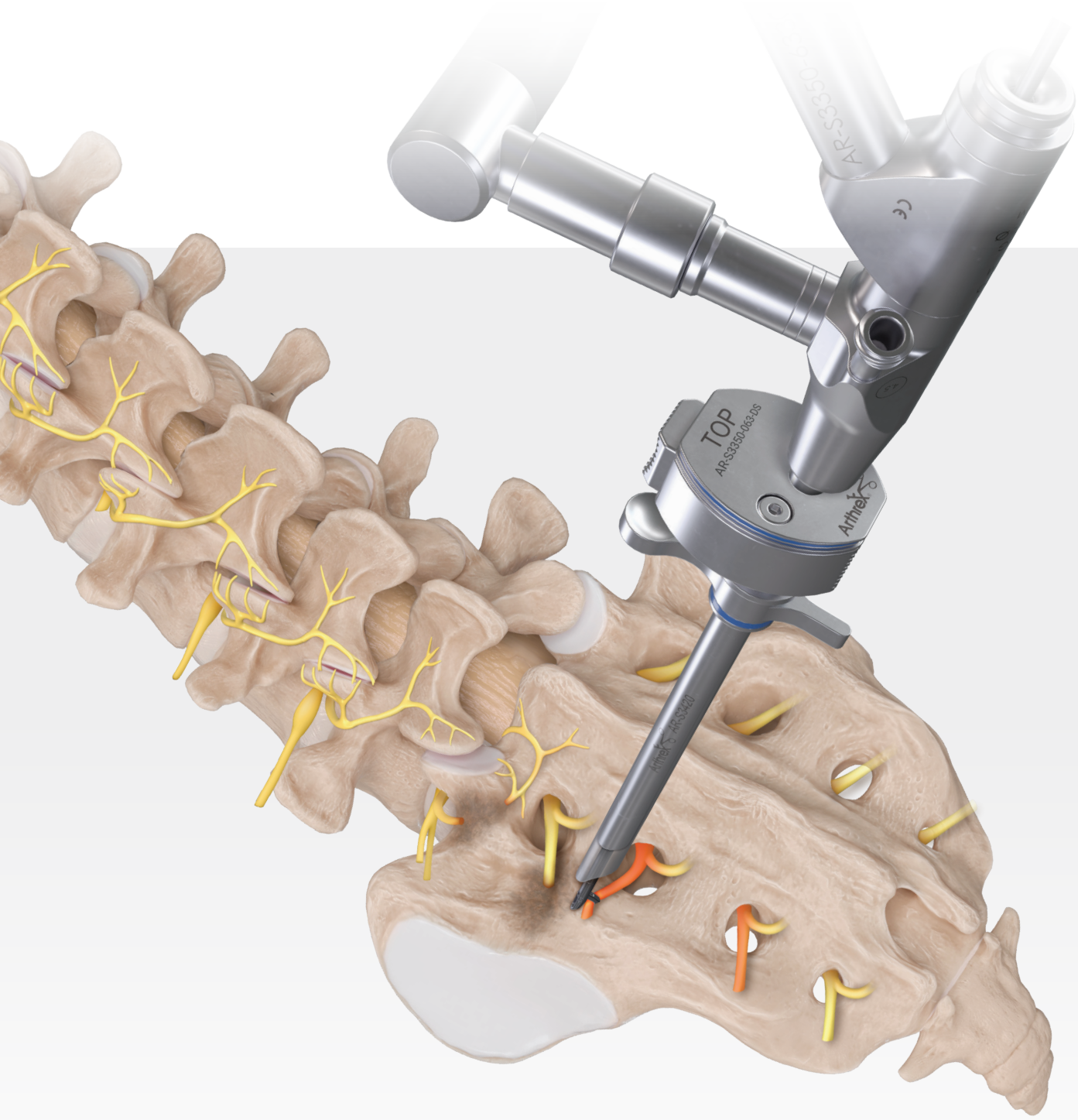
Sacroiliac Joint Denervation

Endoscopic Surgical Technique



Arthrex®

Endoscopic Approach to Sacroiliac Joint Denervation

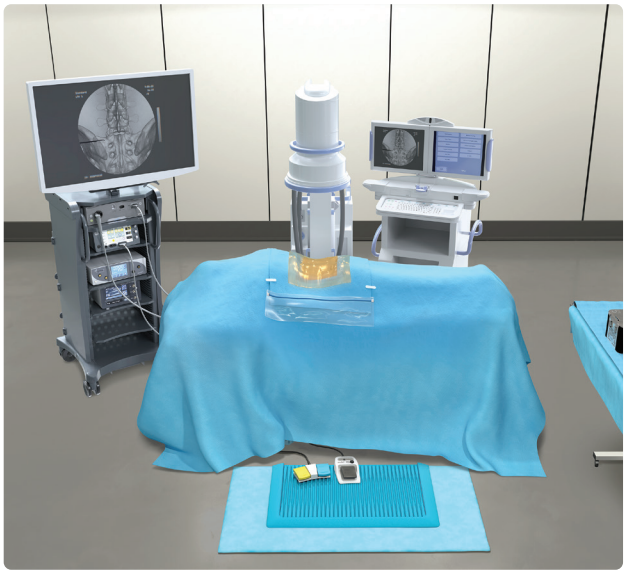
Introduction

Endoscopic sacroiliac joint denervation allows direct visualization for accessing and transecting the medial and lateral branch nerves associated with facet and sacroiliac joint arthropathy, addressing axial low back pain through an ultra-minimally invasive technique. This approach utilizes a spine-specific endoscope for access and visualization. The Synergy imaging system, in conjunction with ergonomic and procedure-specific instruments, provides innovative technology to treat 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

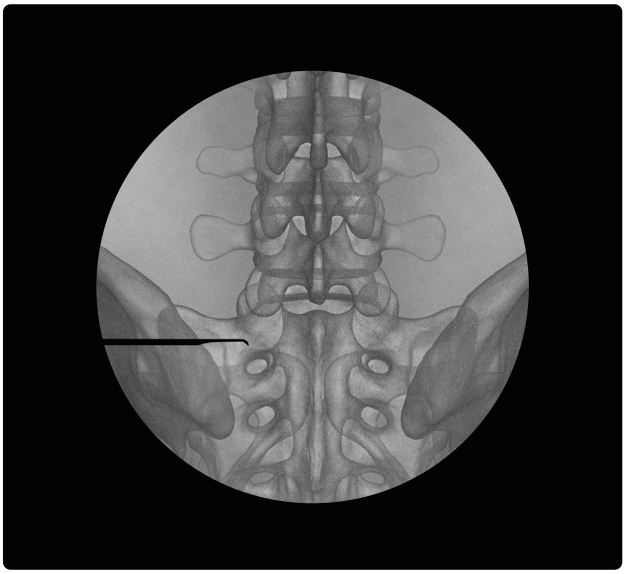
Two-Incision Technique

Incision A



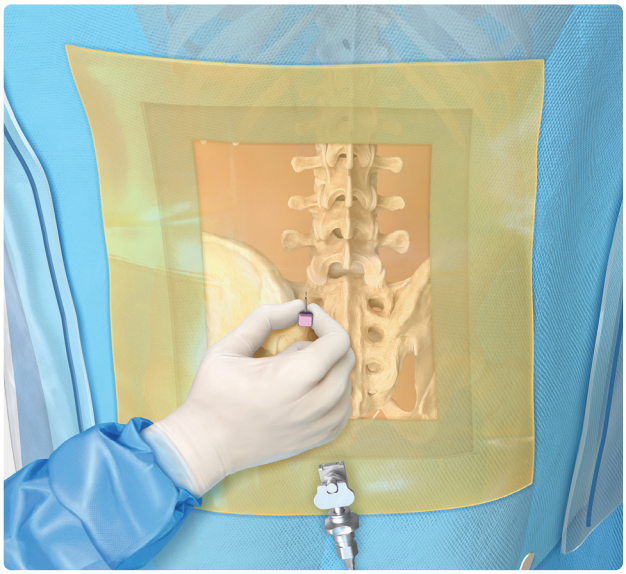
1

Set Up OR and Position Patient
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.



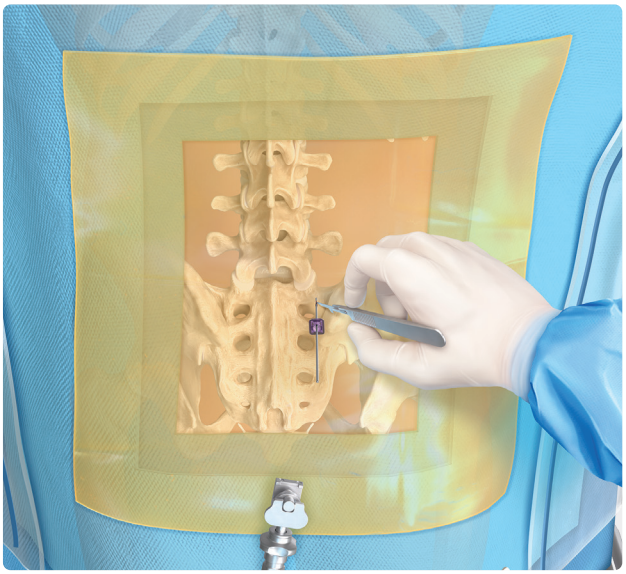
2

Targeting
Use an orthogonal AP view of the sacrum to target the junction of the S1 superior articular process (SAP) and sacral ala.



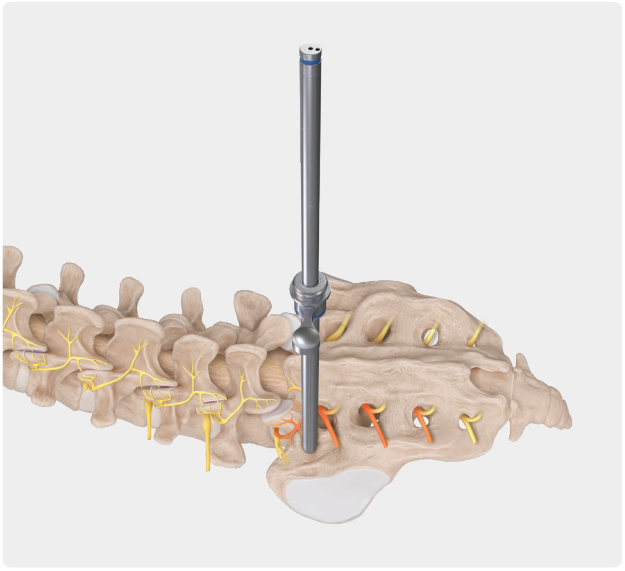
3

Needle Placement
Insert the needle using AP and lateral views to guide the needle to the S1 SAP and sacral ala junction.



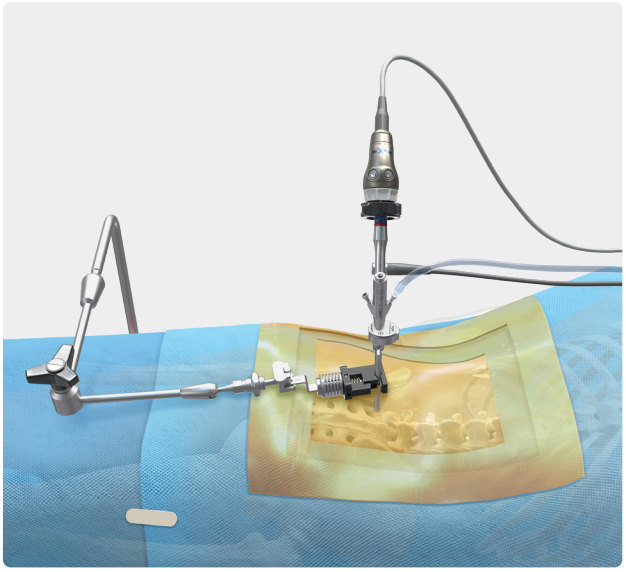
4

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.



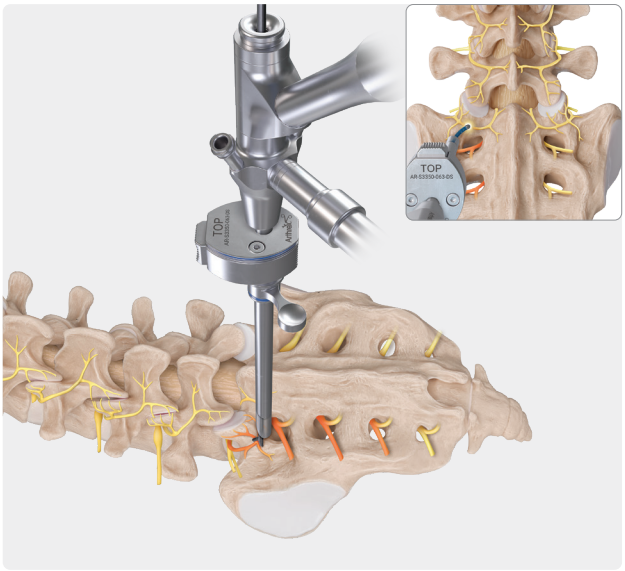
5

Docking
Insert the switching stick, followed by the cannula with the bevel orientated cranial/medial.



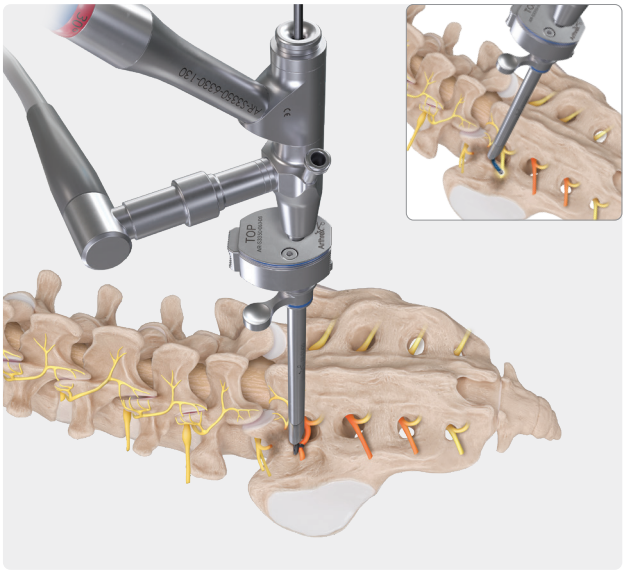
6

Set Up and Insert Endoscope
With the TRIMANO® arm holder attached to the bed via a bed rail adapter, connect the cannula holder while maintaining the trajectory and location of 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.



7

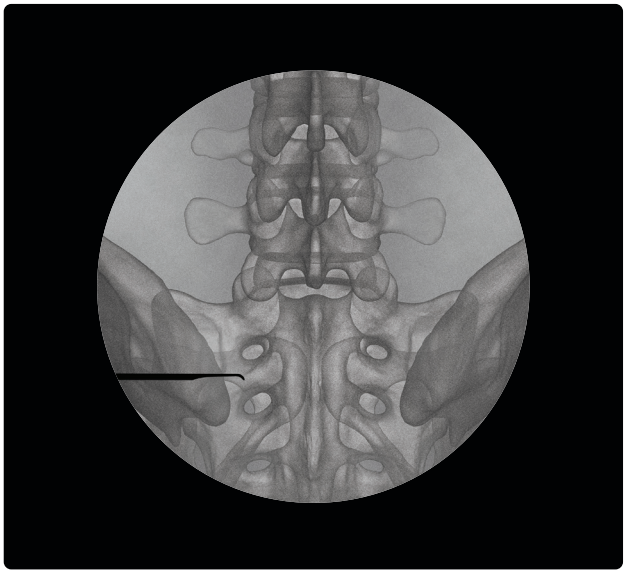
Transect L5 Medial Branch Nerve
Dissect and expose the junction of the S1 SAP and sacral ala. Using the scissor punch, hook scissors, and FlexTip probe, transect the L5 medial branch nerve and ablate the transected nerve ends. Debride the bone at the junction of the S1 SAP and sacral ala.



8

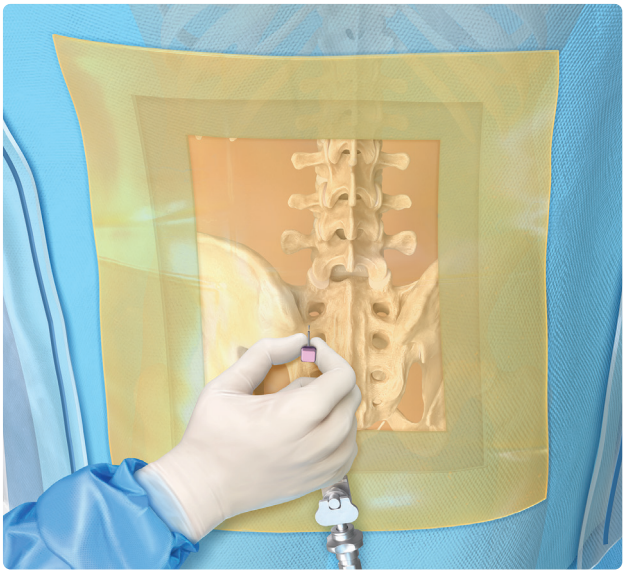
Transect S1 Lateral Branch Nerve
Translate the endoscope and cannula caudally and laterally to visualize the S1 lateral branch nerve. Using the scissor punch, hook scissors, and FlexTip probe transect the S1 lateral branch nerve and ablate the transected nerve ends. Debride the bone lateral to the S1 foramen.

Incision B



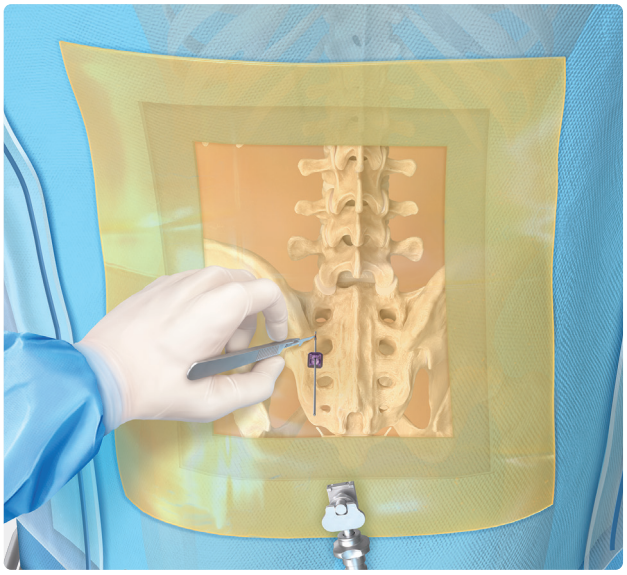
9

Targeting
Use an orthogonal AP view of the sacrum to target lateral to the S1 and S2 foramina.



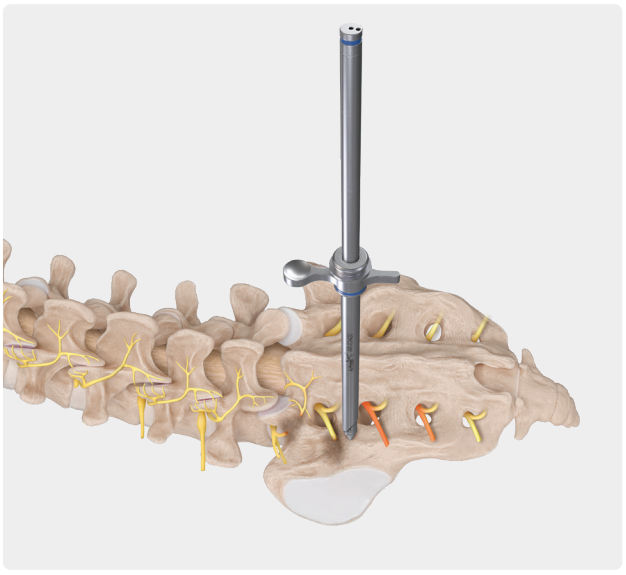
10

Needle Placement
Insert the needle using AP and lateral views to guide the needle lateral to the S1 and S2 foramina.



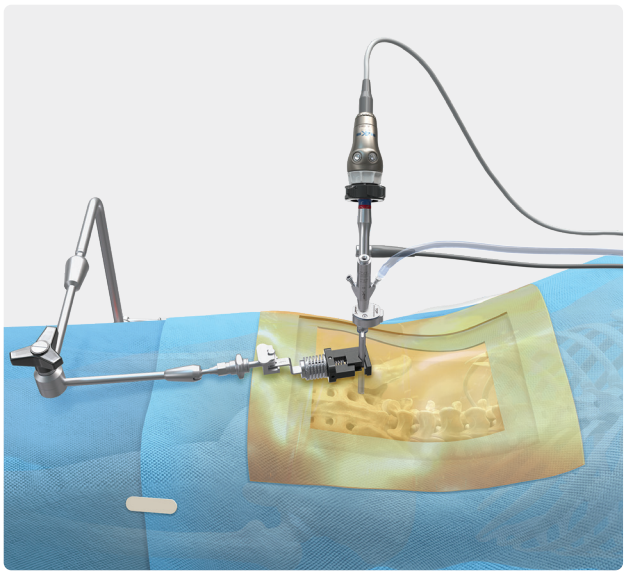
11

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.



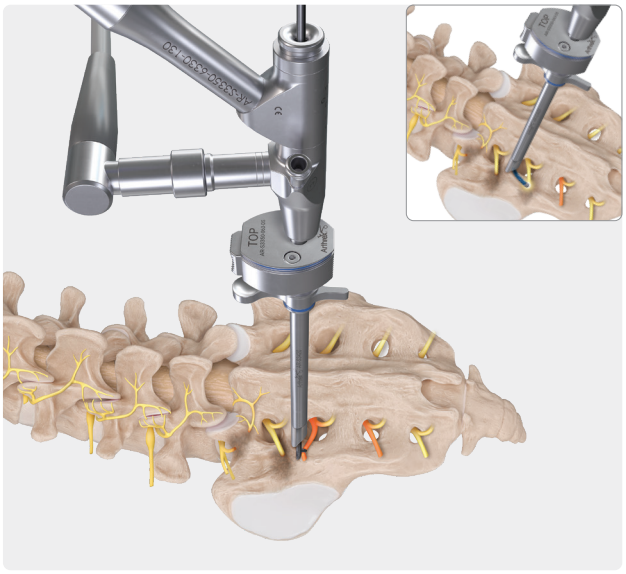
12

Docking
Insert the switching stick, followed by the cannula with the bevel orientated caudal/medial.



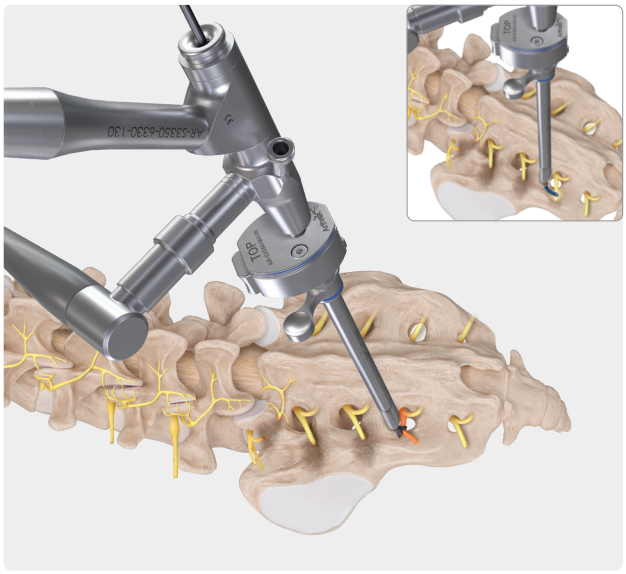
13

Set Up and Insert Endoscope
Connect the cannula holder while maintaining the trajectory and location of 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.



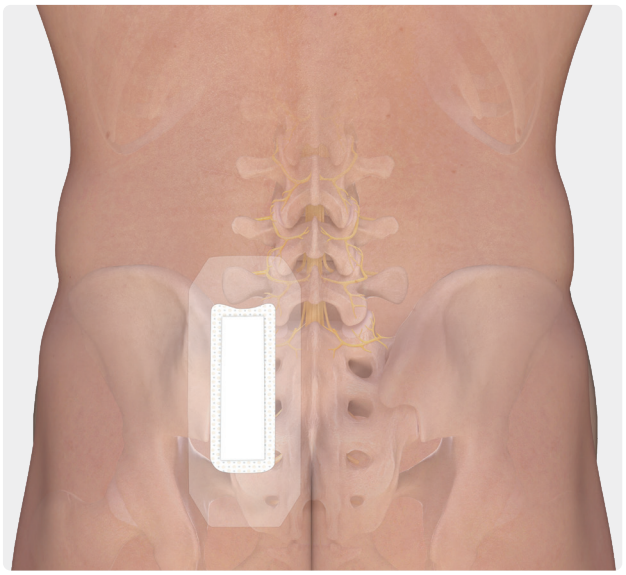
14

Transect S2 Lateral Branch Nerve
Dissect and expose lateral to the S2 foramen, using the FlexTip probe and endoscopic instruments. Using the scissor punch, hook scissors, and FlexTip probe, transect the S2 lateral branch nerve and ablate the transected nerve ends. Debride the bone lateral to the S2 foramen.



15

Transect S3 Lateral Branch Nerve
Translate the endoscope and cannula caudally and laterally to visualize the S3 lateral branch nerve. Using the scissor punch, hook scissors, and FlexTip probe, transect the S3 lateral branch nerve and ablate the transected nerve ends. Debride the bone lateral to the S3 foramen.



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Complete the 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
Switching stick, 6.3 mm × 225 mm	AR-S3020-063-225
Cannula, w/ oblique window, 7.5 mm × 125 mm	AR-S3420-075-12530
Spine endoscope, 6.3 mm × 130 mm, 30°	AR-S3350-6330-130
Cup forceps, 2.5 mm × 260 mm, WishBone™ handle	AR-S7110-025-260W
Scissor punch, 2.5 mm × 260 mm, WishBone handle	AR-S7116-025-260W
Hook scissors, 2.5 mm × 260 mm, WishBone handle	AR-S7115-025-260W
Blunt dissector, 2.5 mm × 310 mm	AR-S1342-025-310
Hook probe, 2.5 mm × 260 mm	AR-S10030-025-260
Kerrison/Ball-tip probe, handle, WishBone handle	AR-S7400-000-000W
Ball-tip probe, shaft, flexible, 1.8 mm × 330 mm	AR-S7405-018-330
Endoscopic Spine Trimano Arm Set	AR-S1000-C4S
Cannula holder	AR-S3420-CH
Dilator holder	ML-0057
FlexTip RF probe, 28 cm	AR-S9805-0028
JumpStart® FlexEFit® antimicrobial wound dressing (5 pack)	ABS-4060-05

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

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

US patent information

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