

Percutaneous Pars Fracture Repair

Surgical Technique



Percutaneous Pars Fracture Repair Using Spine Compression FT Screws

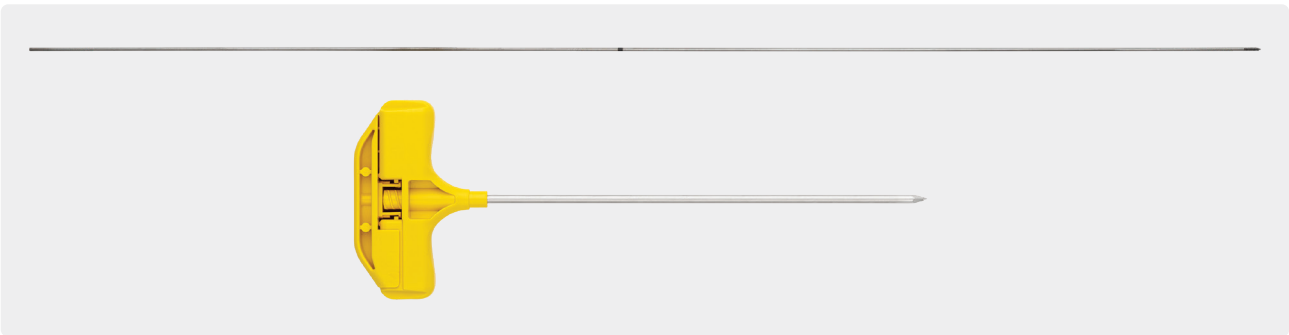
Introduction

The ultra-minimally invasive, endoscopically assisted percutaneous pars fracture repair using Spine Compression FT screws is indicated for the adolescent (12-21 years of age) and adult population. During this procedure, a spine-specific endoscope may be used

for visualization of and direct access to the fracture site for preparation and delivery of biologics. The Synergy imaging system, in conjunction with ergonomic instruments, provides advanced visualization technology for treating pars fractures.

Compatibility Chart

4 mm Screws



Compression Screw Kit, 3.5/4 mm, 11 ga introducer needle and 1.1 mm guidewire, box of 5	AR-S8700-3540K-S
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Drill bit, cannulated, 3.2 mm	AR-S8720-040-S
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Inner dilator, 1.1 mm	AR-S8720-011
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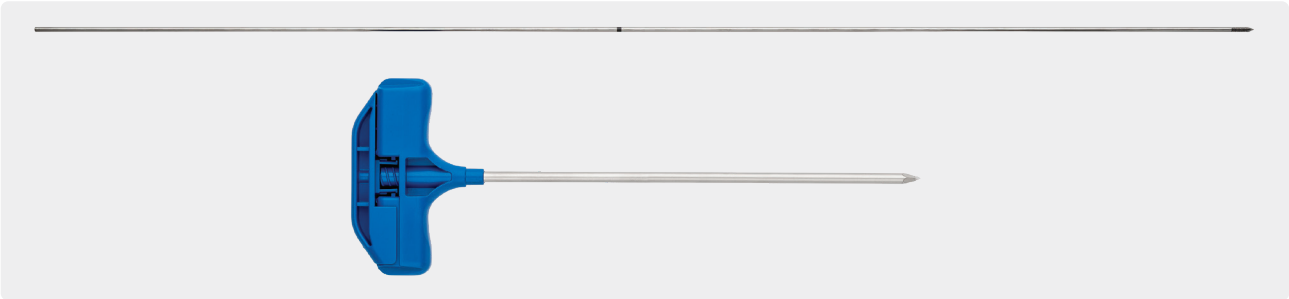
Driver, cannulated, T10	AR-S8720-T10
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Compression Screw Drill Kit, 4 mm, 3.2 mm drill bit w/ integrated removable trocar and 1.1 mm guidewire	AR-S8720-040K-S
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Guidewire, threaded, 1.1 mm x 430 mm	AR-S8710-011-430-S
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Mold: ■ Instruments compatible with 4 mm screw ■ Instruments compatible with 5 mm screw

5 mm Screws



Compression Screw Kit, 5 mm, 9 ga introducer needle and 1.6 mm guidewire, box of 5	AR-S8700-0050K-S
Compression Screw Drill Kit, 5 mm, 3.7 mm drill bit w/ integrated removable trocar and 1.6 mm guidewire	AR-S8720-050K-S



Drill bit, cannulated, 3.7 mm	AR-S8720-050-S
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Inner dilator, 1.6 mm	AR-S8720-016
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Driver, cannulated, T15	AR-S8720-T15
Guidewire, threaded, 1.6 mm x 430 mm	AR-S8710-016-430-S



Drill guide handle, assembled w/ AR-S8720-DG-P	AR-S8720-DGH
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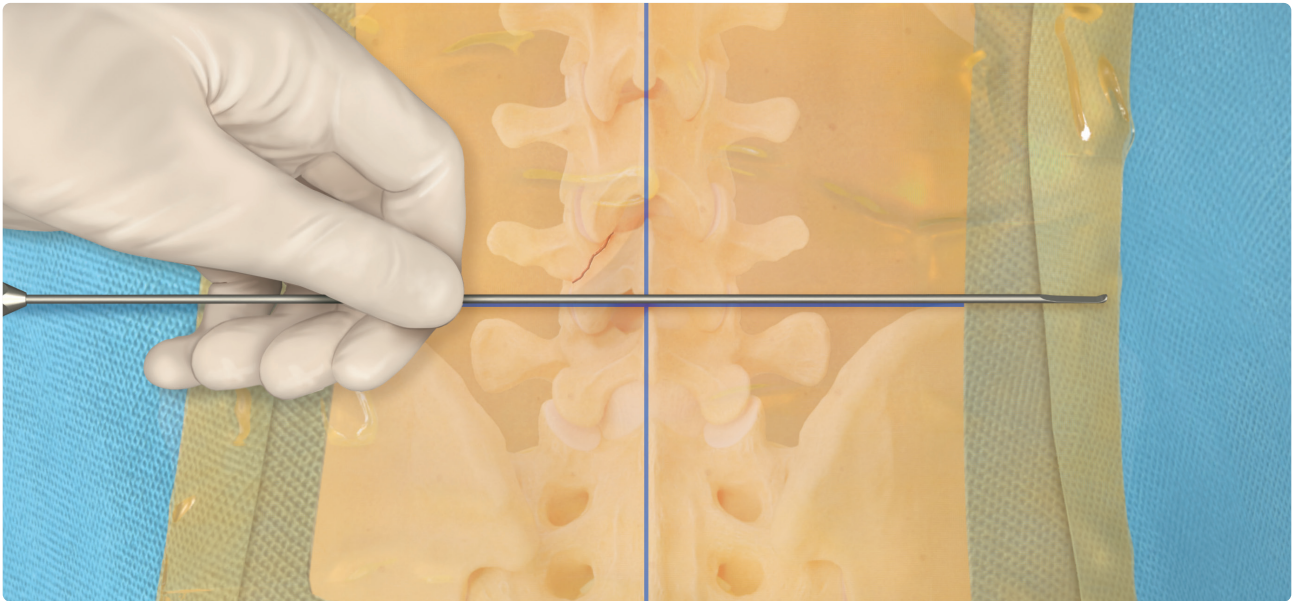


Drill guide, crown tip	AR-S8720-DG-H
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Drill guide, angled tip	AR-S8720-DG-P
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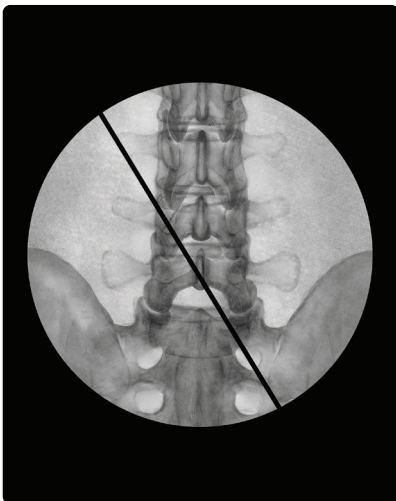
Technique Steps



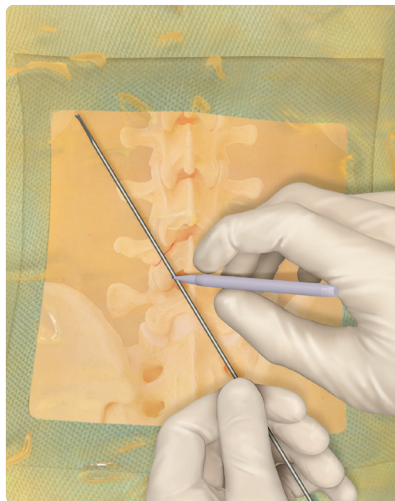
1

Localize Target Level and Mark Lamina and Midline

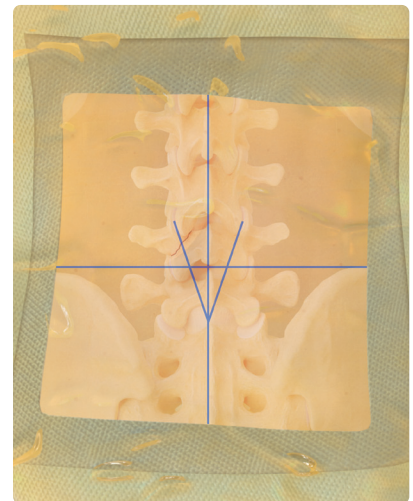
Use AP and lateral fluoroscopy, guided by preoperative imaging, to localize the target level. Mark the inferior edge of the lamina and the midline.



2a



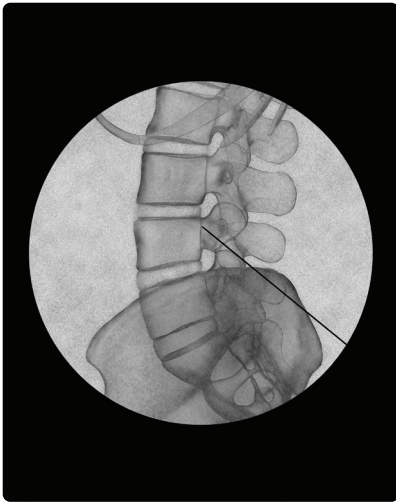
2b



2c

Mark Oblique Screw Trajectory

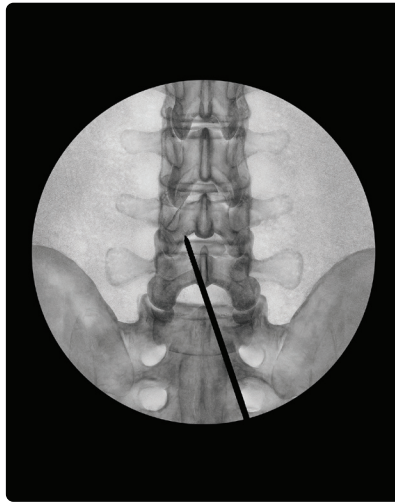
Use AP imaging to determine the screw trajectory and mark from the top of the pedicle to the midline. For bilateral treatment, repeat on both sides.



3

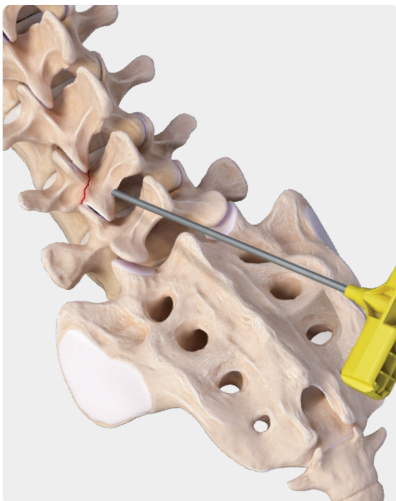
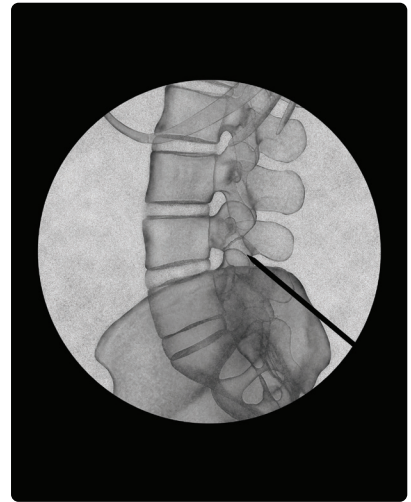
Mark Lateral Trajectory

Use lateral fluoroscopy to define the screw trajectory through the pars and mark the skin. This marking serves as a reference for the AP entry point.



4

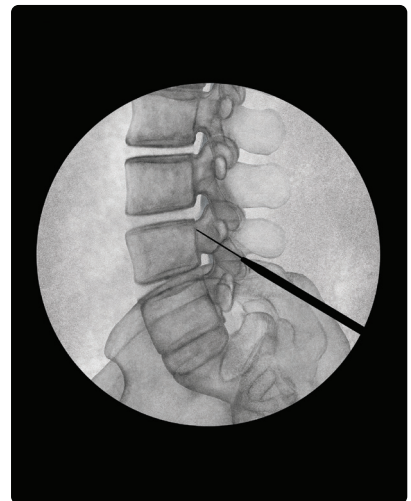
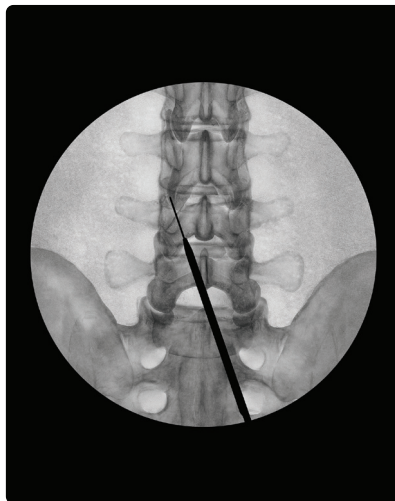
Using AP and lateral fluoroscopy, make a skin incision and insert the introducer needle, docking on the inferior edge of the lamina.

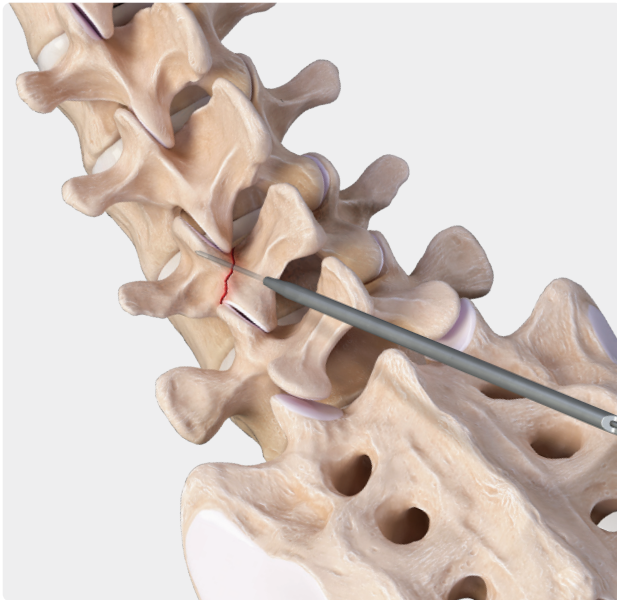


5

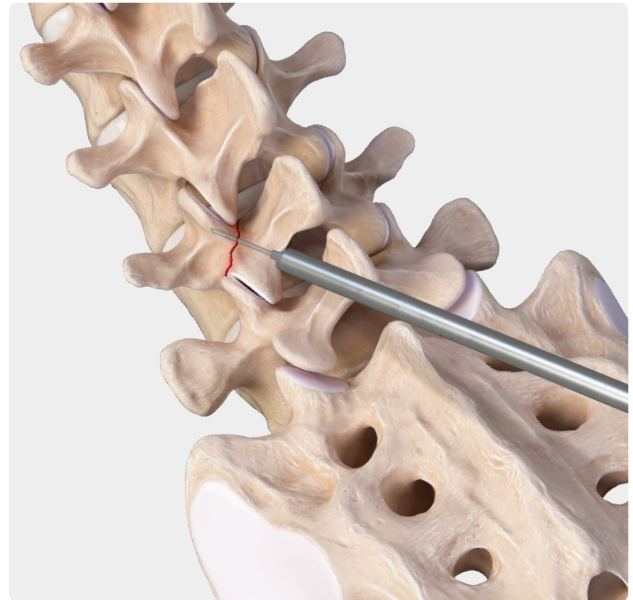
Insert Guidewire

Remove the stylet and insert the guidewire through the cannula of the needle. Use AP and lateral fluoroscopy to make fine adjustments to the entry point. Use a pin driver to advance the guidewire across the fracture, confirming the trajectory with AP and lateral fluoroscopy periodically during insertion.





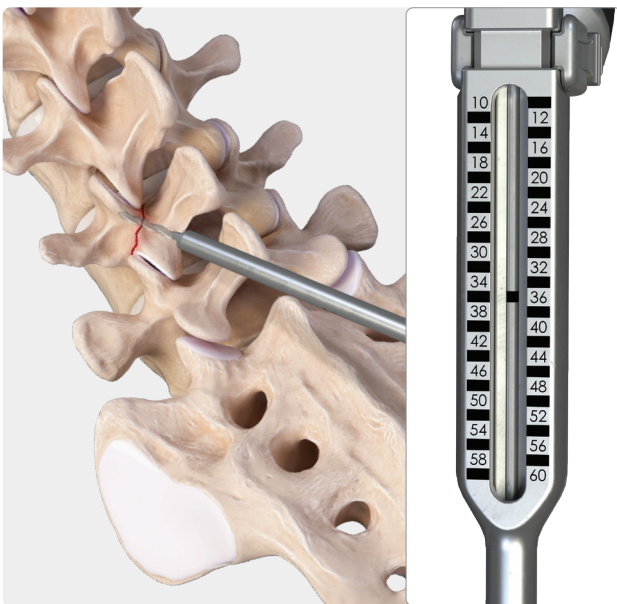
6a



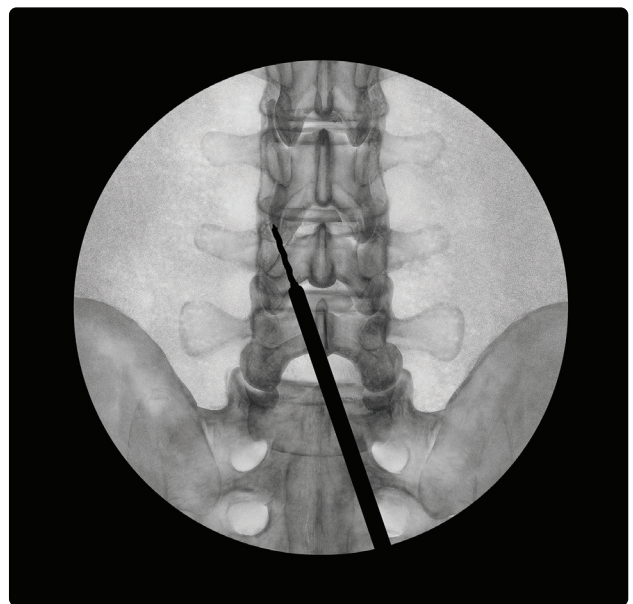
6b

Insert Dilator and Drill Guide

Make a skin incision to accommodate the dilator and drill guide. Remove the introducer needle, then insert the dilator and drill guide over the guidewire, orienting the bevel of the drill guide to match the patient's anatomy.

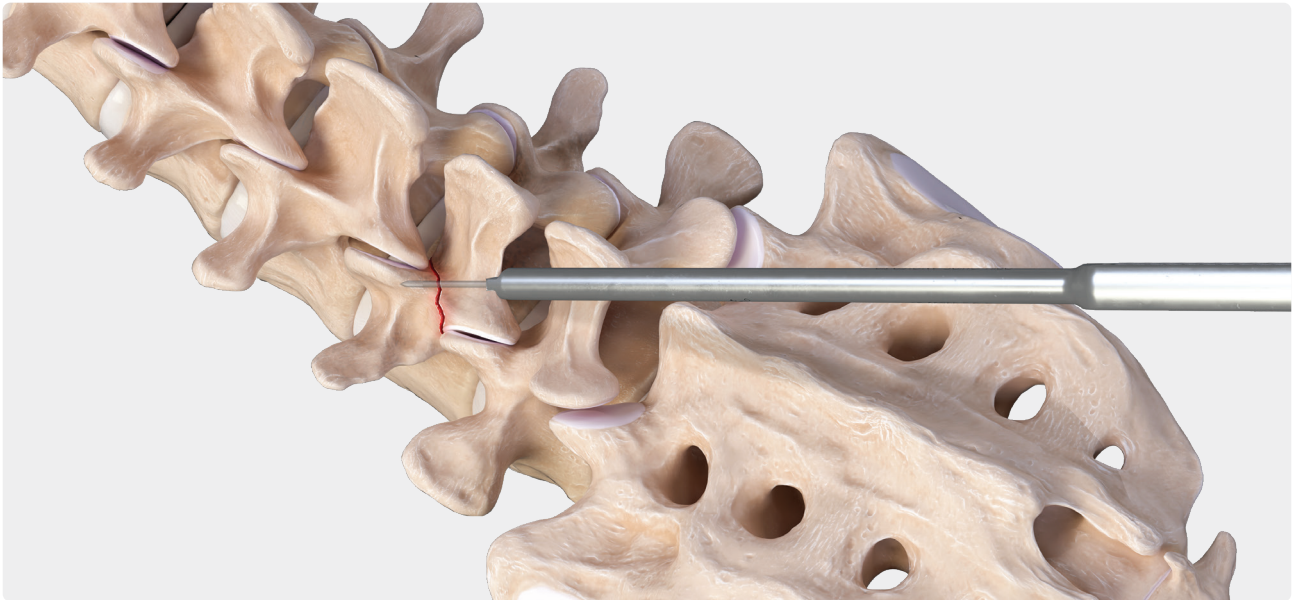


7



Remove Dilator and Advance Drill Over Guidewire

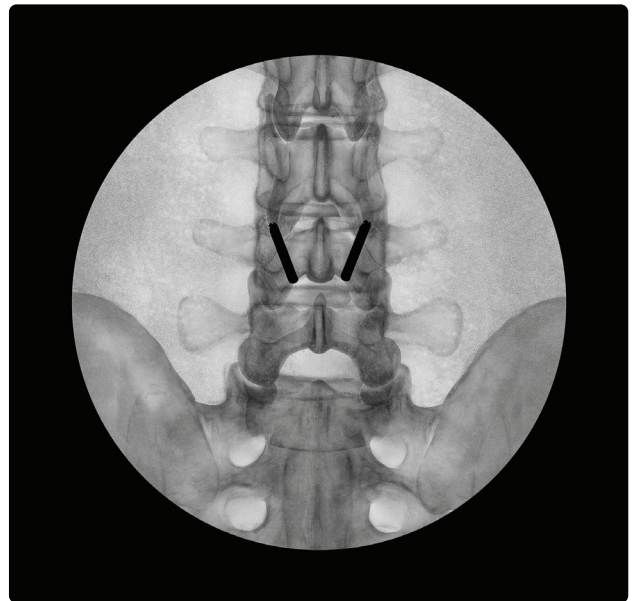
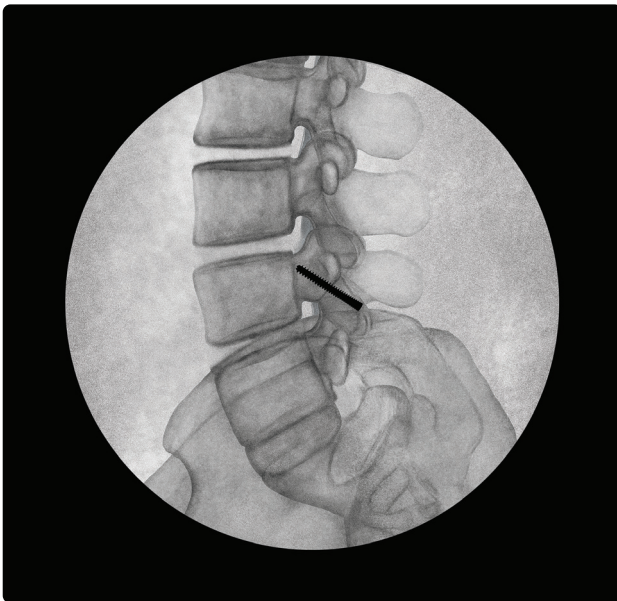
Remove the dilator and insert the drill bit over the guidewire. Align the drill bit coaxially with the guidewire, then drill to the desired implant depth. Confirm trajectory and depth periodically with fluoroscopy, ensuring the guidewire is not advanced during drilling. Use the laser line and corresponding measurements on the drill guide to verify depth and determine implant length.



8

Remove Drill Bit

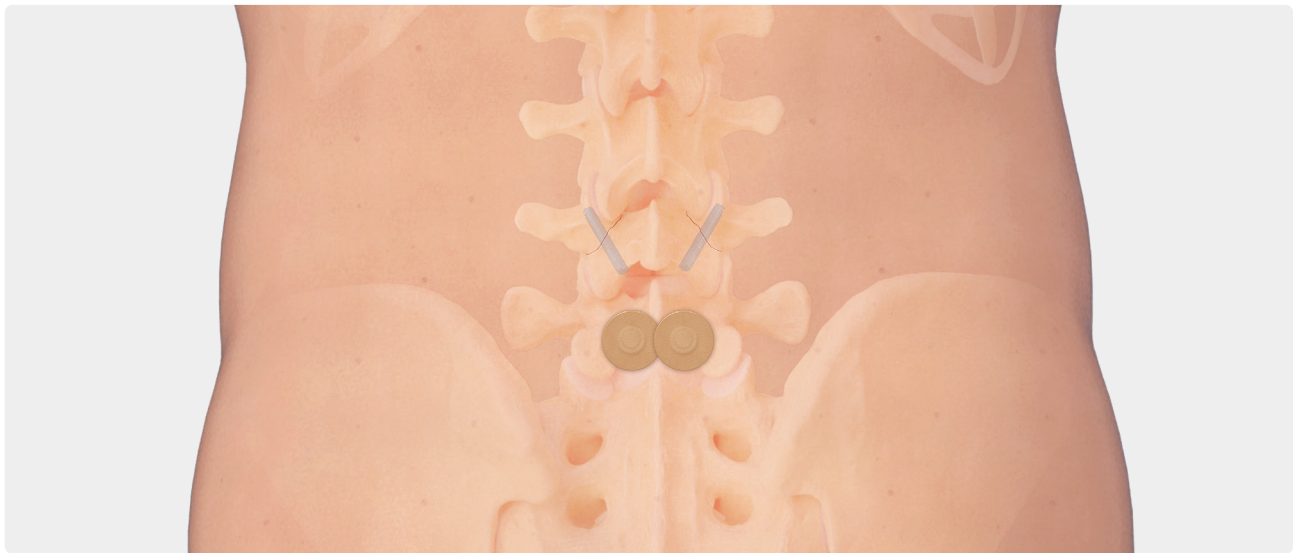
Reverse the drill bit under power 10-15 mm, stopping before the tip passes the fracture site. Remove the guidewire and insert a new guidewire. Continue removing the drill bit with a ratcheting handle while maintaining guidewire depth and location.



9

Place Implant

Load the screw firmly onto the screwdriver. Place the cannulated implant and screwdriver over the guidewire and advance to the desired depth. Confirm guidewire and implant position periodically with AP and lateral fluoroscopy. The implant will be fully seated when the laser line on the screwdriver is flush with the back of the drill guide.



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Wound Closure and Dressing

Remove the instruments, close the incision, and apply JumpStart® dressing to the incision site(s).

Ordering Information

Instruments and Disposables

Percutaneous Instrument Case	AR-S1087-C1
Percutaneous Instrument Set	AR-S1087-C1S
Compression Screw Kit, 5 mm, 9 ga introducer needle and 1.6 mm guidewire	AR-S8700-0050K-S
Compression Screw Kit, 3.5/4.0 mm, 11 ga introducer needle and 1.1 mm guidewire	AR-S8700-3540K-S
Screw extractor, 5 mm	AR-S8720-0050-EO
Inner dilator, 1.1 mm	AR-S8720-011
Inner dilator, 1.6 mm	AR-S8720-016
Compression Screw Drill Kit, 4 mm, 3.2 mm drill bit w/ integrated removable trocar and 1.1 mm guidewire	AR-S8720-040K-S
Drill bit, cannulated, 3.2 mm	AR-S8720-040-S
Compression Screw Drill Kit, 5 mm, 3.7 mm drill bit w/ integrated removable trocar and 1.6 mm guidewire	AR-S8720-050K-S
Drill bit, cannulated, 3.7 mm	AR-S8720-050-S
Screw extractor, 3.5/4 mm	AR-S8720-3540-EO
Drill guide handle	AR-S8720-DGH
Drill guide, crown tip	AR-S8720-DG-H
Drill guide, angled tip	AR-S8720-DG-P
Driver, cannulated, T10	AR-S8720-T10
Driver, cannulated, T15	AR-S8720-T15
Guidewire, threaded, 1.1 mm × 430 mm	AR-S8710-011-430-S
Guidewire, threaded, 1.6 mm × 430 mm	AR-S8710-016-430-S

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 eFUs)



US patent information