



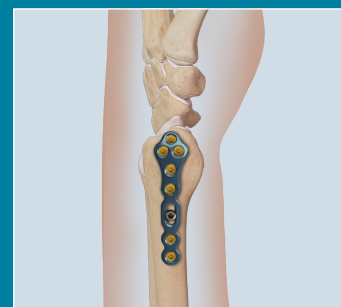
Comprehensive Fragment Specific Wrist Plating Solutions

Surgical Technique

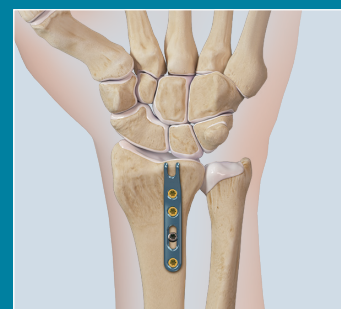
Dorsal Plating



Radial Styloid



Volar Hook Plate



Ulna Styloid



Spanning Plate



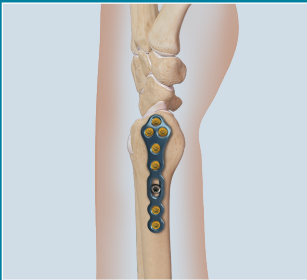
Universal L-plates





Dorsal Plating Options

Low-profile dorsal plating options providing narrow and standard width plate options to buttress dorsally comminuted fracture fragments.



Radial Styloid Plate

Provides direct radial styloid buttressing in a low profile design with anatomic screw trajectory for stable support.



Volar Hook Plate

Provides fixed tine support for very distal subchondral fracture fragments.



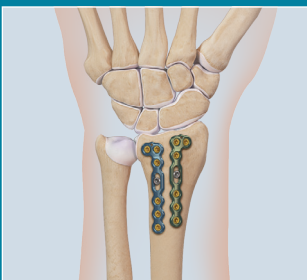
Ulna Styloid Plate

Hook plate design provides stable and contoured support to the distal ulna.



Spanning Plate

Low-profile design maintains height of highly comminuted wrist fractures for stability during the healing period.



L-Plates

Universal L-plates provide stability for a variety of fracture patterns and can be used in conjunction with other fragment specific plates for added stability.

Ordering Information

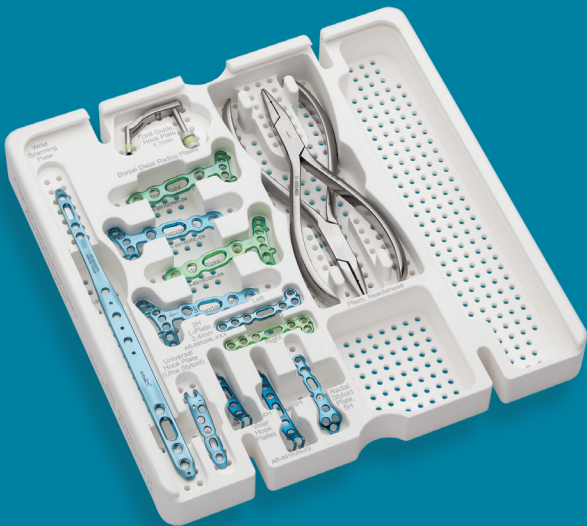
Fragment Specific Set includes:

Fragment Specific Case	AR-8916C-21
Needle Nose Pliers x 2	AR-8916-24
1.7 mm Parallel Drill Guide	AR-8916-26

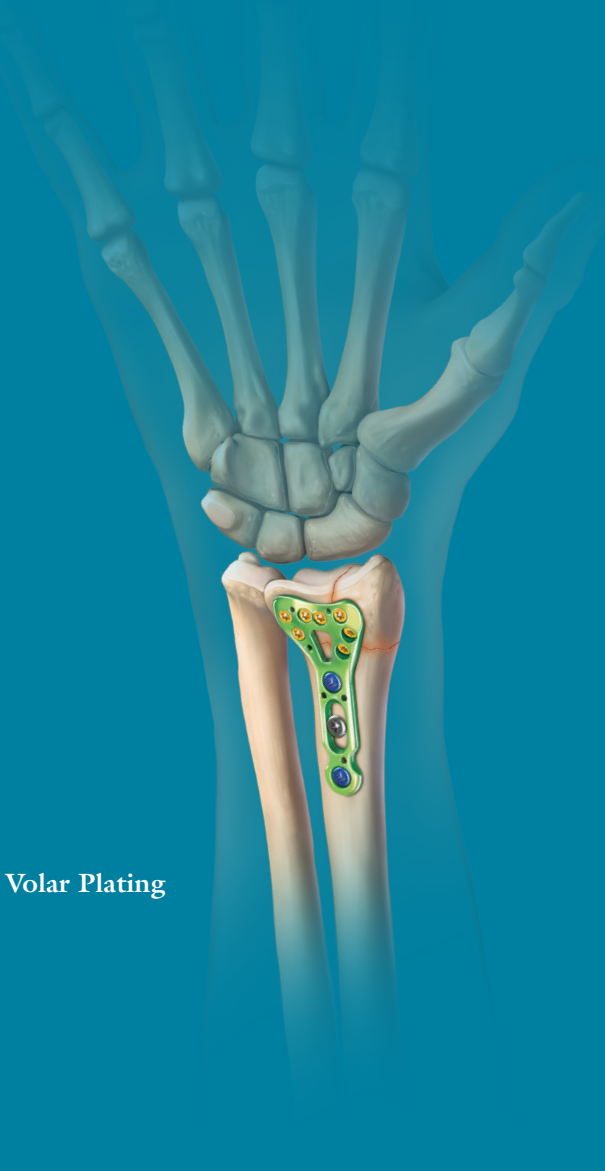
Plates:

2.4 mm 2H L-Plate, Ti, Right, 5H	AR-8952ML-05R
2.4 mm 2H L-Plate, Ti, Left, 5H	AR-8952ML-05L
Wrist Spanning Plate, Ti, 9H	AR-8916SPN
2.4 mm Distal Radius Styloid Plate, Ti, 5H	AR-8916RSTY-05
Volar Hook Plate, Ti, 4H	AR-8916VH-04
Volar Hook Plate, Ti, 6H	AR-8916VH-06
Dorsal Distal Radius Plate, Ti, Standard, Right, 4H	AR-8916DSR-04
Dorsal Distal Radius Plate, Ti, Standard, Left, 4H	AR-8916DSL-04
Dorsal Distal Radius Plate, Ti, Narrow, Right, 4H	AR-8916DNR-04
Dorsal Distal Radius Plate, Ti, Narrow, Left, 4H	AR-8916DNL-04
Ulna Styloid Plate	AR-8956-01

**Must be used with Wrist Plating System (AR-8916S)*



Volar Plating

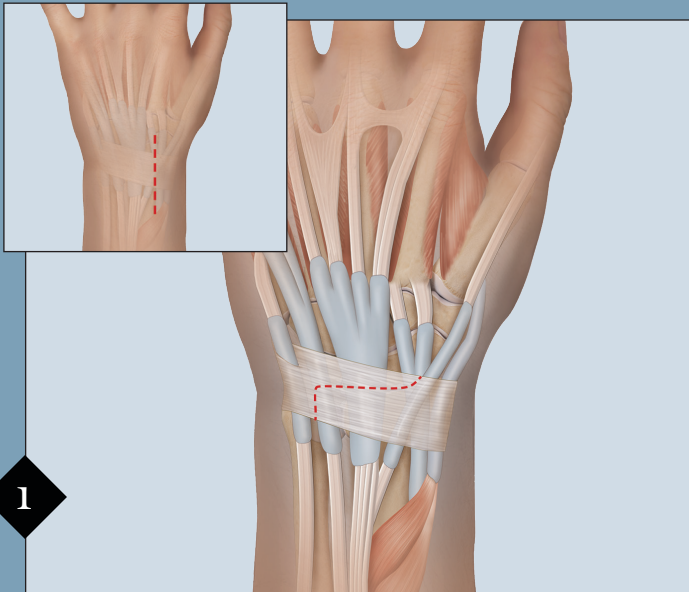
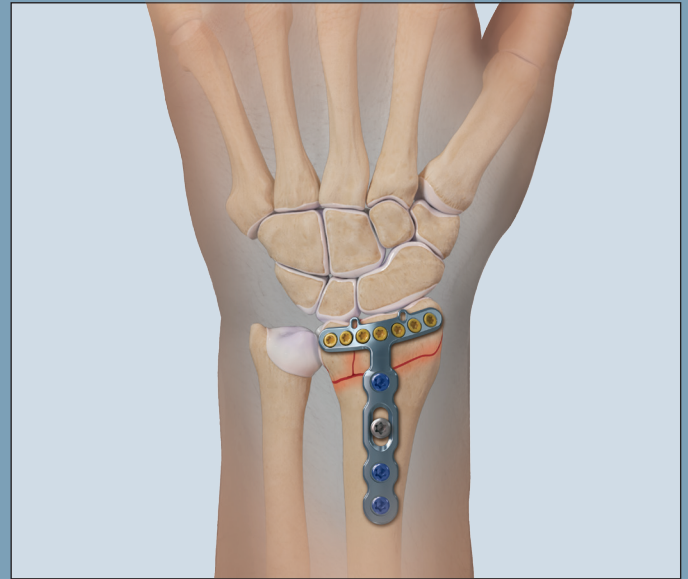


Arthrex® Dorsal Plating Technique Guide

The Dorsal Distal Radius Plate provides distal subchondral fracture support and direct dorsal buttressing of the distal radius. The plate is designed to be low profile and offers anatomic contoured support of the subchondral bone.

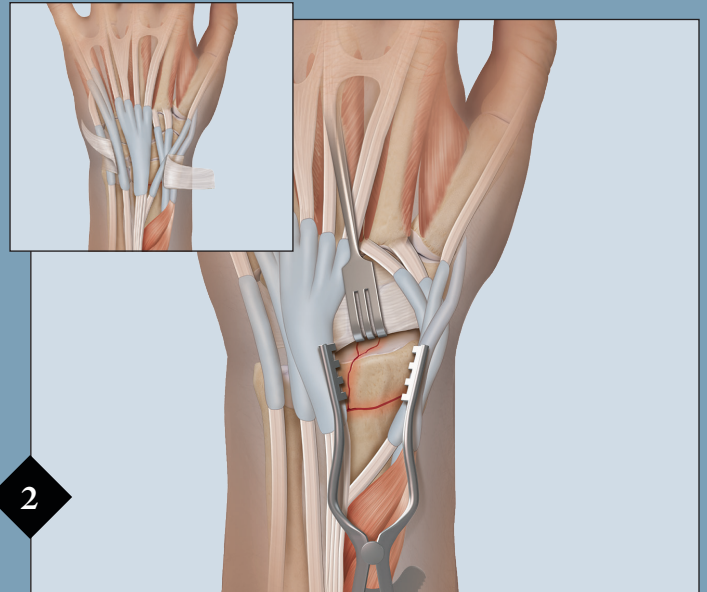
Benefits of dorsal plating include:

- Ability to directly buttress dorsal fragments that may not be easily captured with traditional volar plating options
- Reduce intra-articular fragments under direct visualization by accessing the articular surface through the dorsal capsule
- Correction of malunions and grafting through dorsal osteotomy and plating



1

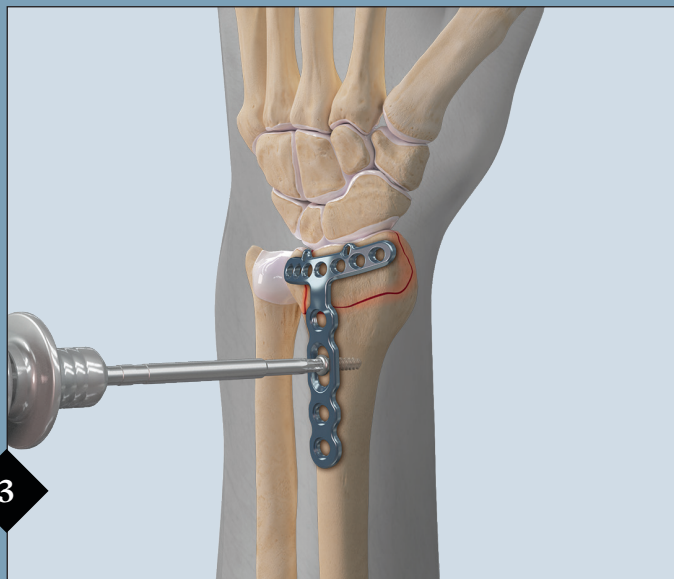
A dorsal approach is used over the center of the radius using the radial styloid and Listers tubercle as landmarks. Dissection is taken down to the retinaculum with an incision through the distal retinaculum transversely from the 4th dorsal extensor compartment out through the EPL.



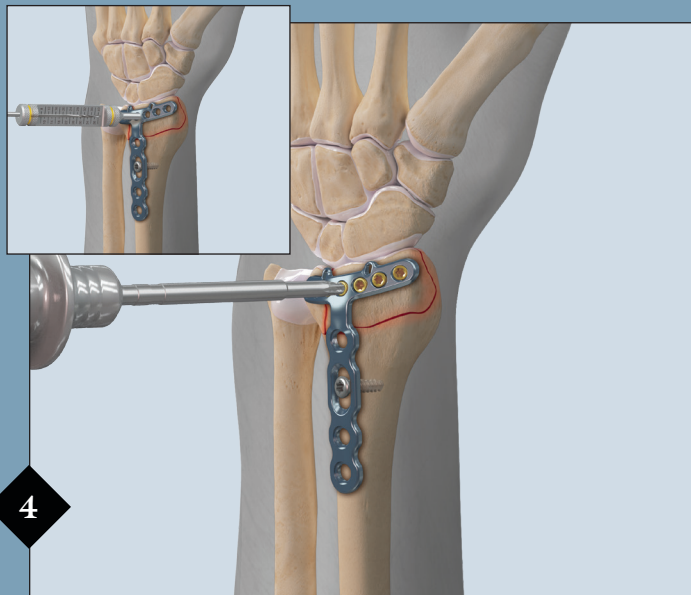
2

The proximal retinaculum is elevated from the 5th dorsal extensor compartment to Listers tubercle with close subperiosteal dissection to the second compartment to create a proximal flap. The extensor tendons are retracted between the third and fourth extensor compartments. Listers tubercle is removed with a rongeur and can be used for bone grafting if desired. The joint capsule can be reflected off the dorsal lip of the dorsal radius for access to the joint and fragment reduction if desired.

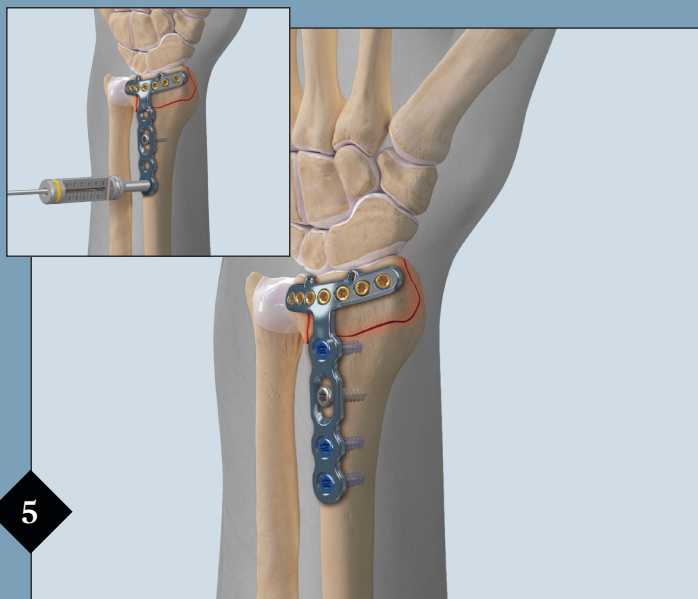
Arthrex® Dorsal Plating Technique Guide



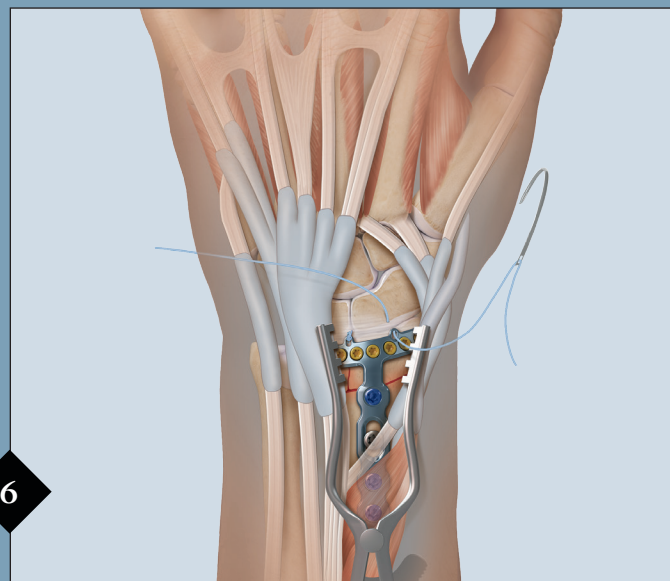
Once dissection and exposure are complete, select either a narrow or standard width dorsal plate. Next, position plate to capture the distal subchondral bone and insert a nonlocking 3.5 mm screw into the oblong slot of the shaft for provisional fixation. Check positioning under fluoroscopy and adjust plate as needed using the oblong positioning slot.



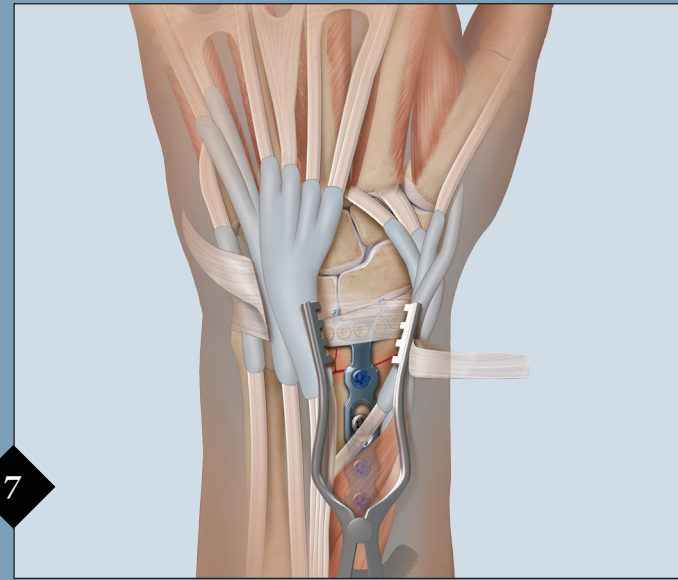
Once placement is satisfactory, place the distal 2.4 mm locking screws using either the locking drill guide, short drill sleeves, or the VAL drill guide (locking drill shown). Confirm proper screw placement under fluoroscopy.



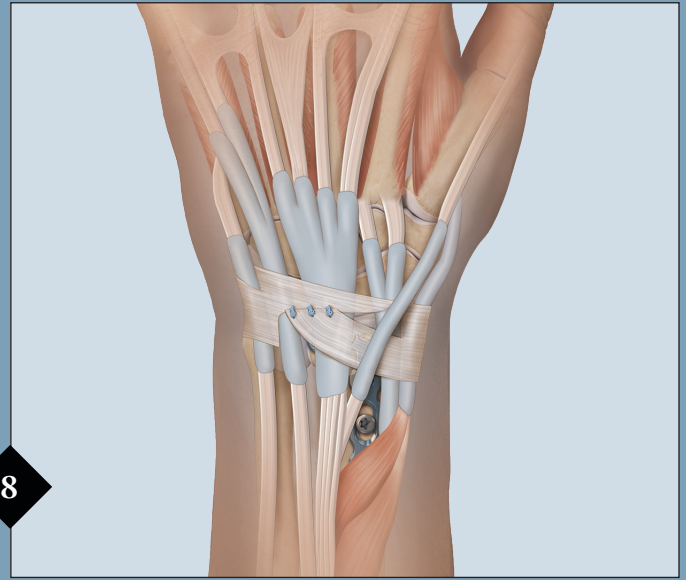
Next, secure the plate proximally by placing the remaining 3.5 mm locking screws using the locking drill guide.



Once final plate positioning and screw placement is satisfactory, the joint capsule can be reattached to the distal suture holes in the plate if adequate re-approximation tissue is unavailable.



7 The extensor retinaculum flap is then divided down to the floor between the first and second compartments. The distal flap is passed under the tendons of the second compartment and covers the plate distally to protect against tendon irritation with the plate. The retinaculum can be secured to the periosteum ulnarly and the capsule distally.



8 The remaining proximal retinaculum is placed over the tendons of the second and fourth compartments leaving the EPL superficial. Leave at least 1 cm of retinaculum to keep the retinaculum functional.

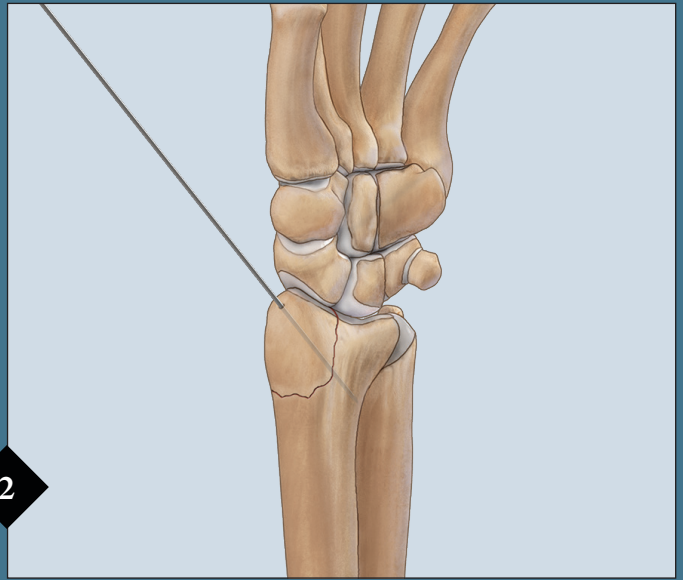
Arthrex® Radial Styloid Plating Technique Guide

1



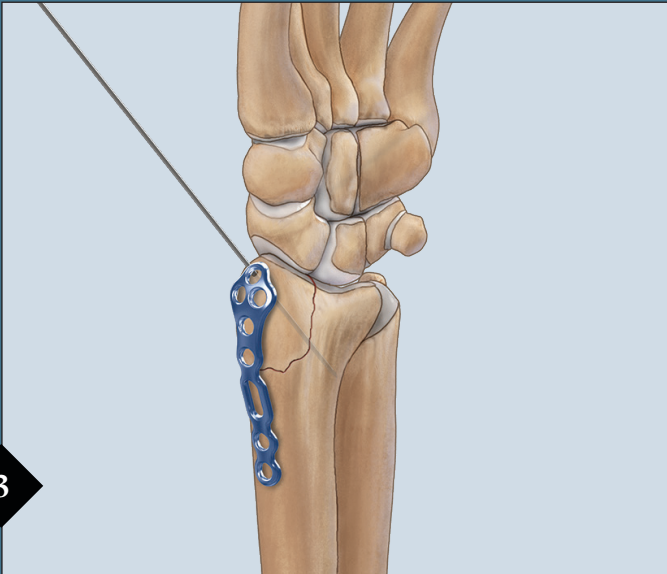
A longitudinal radial skin incision is made along the 1st and 2nd dorsal extensor compartment tendons. Alternatively, through an extended FCR approach, the skin envelope containing the radial artery can be mobilized off the radial extensor compartments. Care is taken to dissect and mobilize the superficial branch of the radial nerve. The extensor retinaculum of the 1st dorsal compartment is opened, cheating dorsally, to prevent subluxation of these tendons. Alternatively, the distal 1 cm of the retinaculum is not divided. The fracture site is exposed.

2



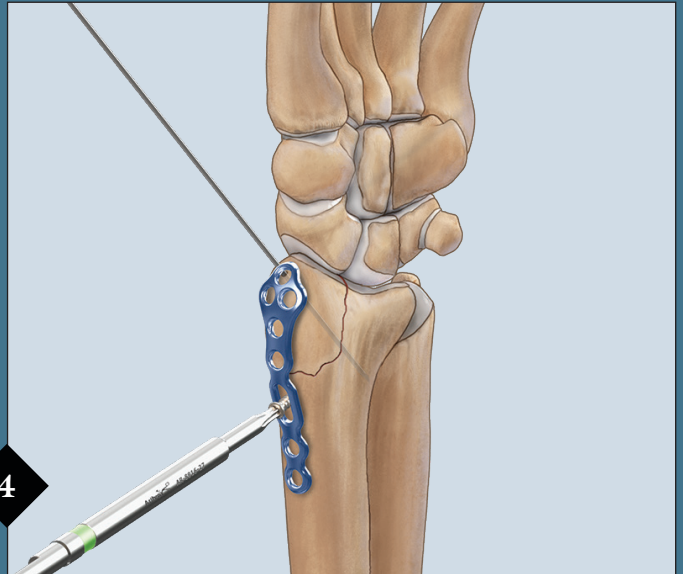
A trans-styloid K-wire can be placed distally through the fragment to reduce the fracture and provide a guide for plate placement. To aid in fracture reduction, a dorsal capsulotomy may be required.

3



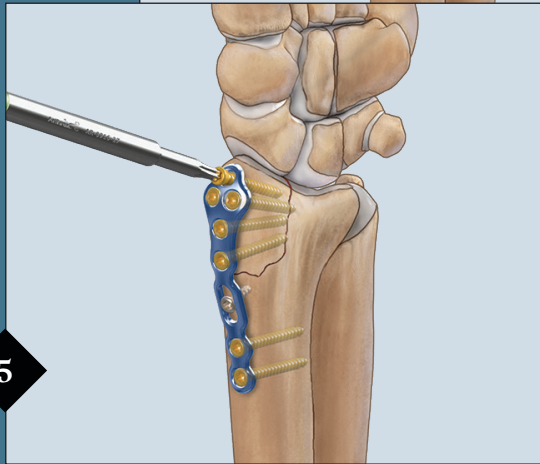
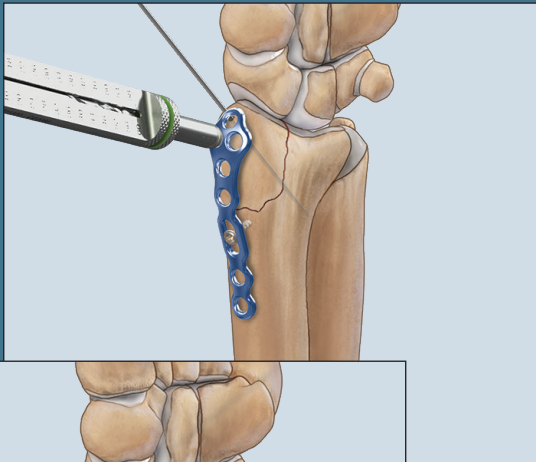
The plate can be positioned over the trans-styloid guidewire to aid in positioning if desired. The plate is slid under the tendons of the first dorsal compartment.

4



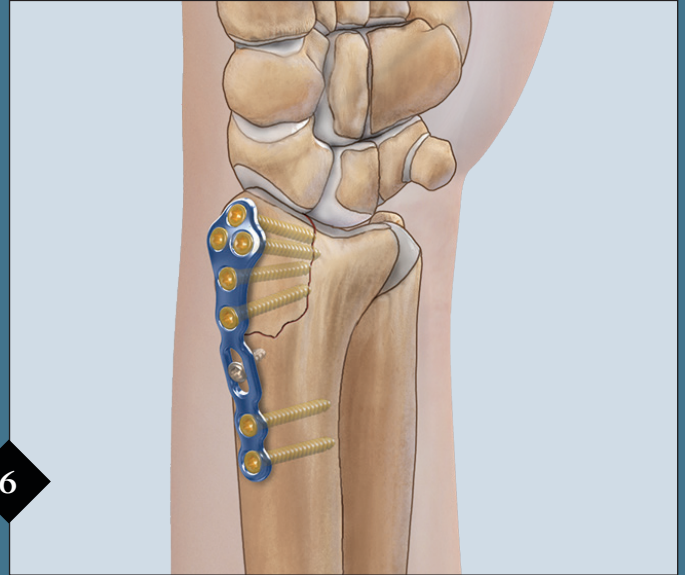
Next, provisionally fix the plate by placing a 2.4 mm nonlocking screw or BB-Tak™ anchor into the oblong slot of the shaft of the plate using the drill guide and 1.7 mm drill bit. Confirm reduction of the fracture and plate placement using fluoroscopy.

Arthrex Radial Styloid Plating Technique Guide



5

Use the threaded locking tower, VAL guide, or short drill sleeves to drill and place the 2.4 mm VAL locking screws into the remaining screw holes. The initial K-wire can be removed and screw hole filled with 2.4 mm locking screws (AR-8724V-xx). Care is taken when placing these distal screws to prevent fracture of the fracture fragments.



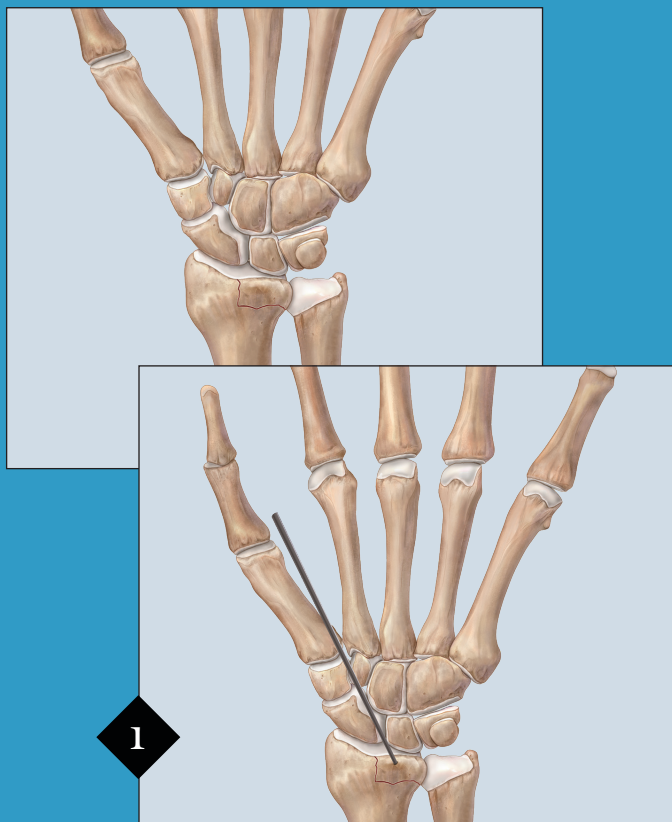
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Confirm final fragment reduction, plate placement, and screw trajectory on fluoroscopy to ensure proper screw placement and satisfactory fracture reduction.

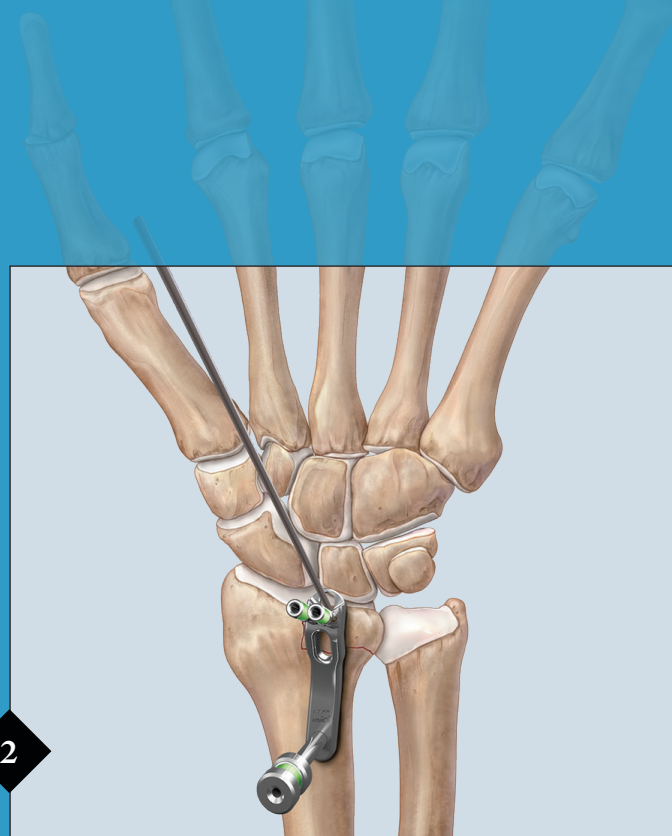


This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex® products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations 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.

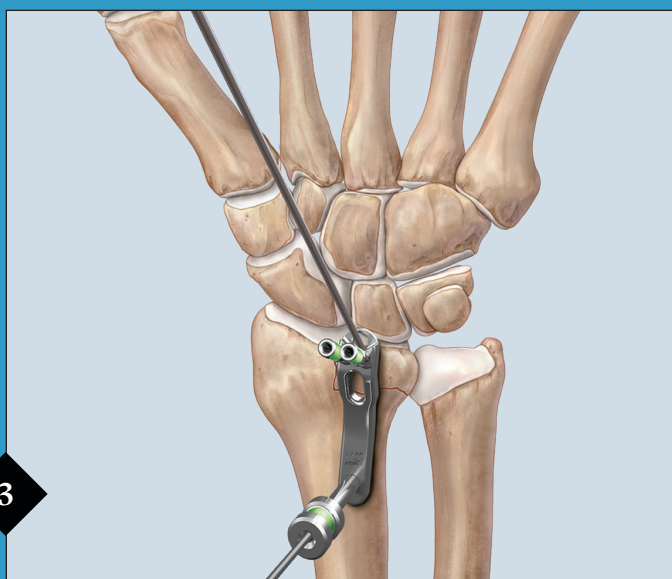
Arthrex® Volar Hook Plating Technique Guide



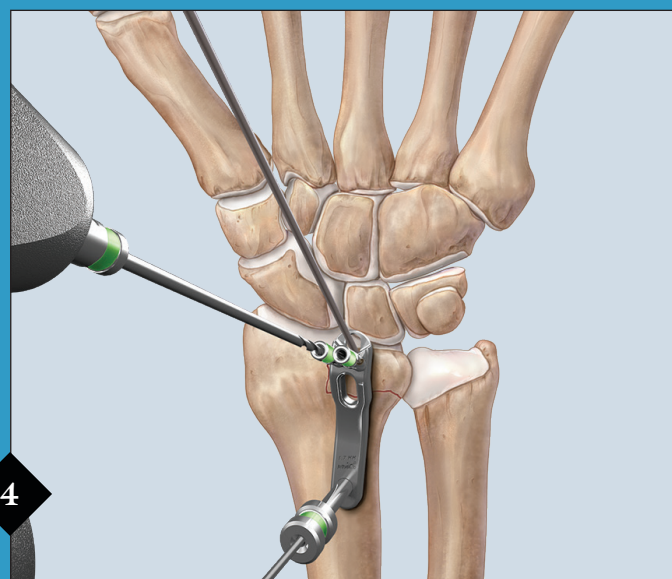
An extended FCR approach may be used to expose the very distal aspect of the radius to adequately expose the distal fracture fragment. A K-wire can be placed into the fragment distally for temporary stabilization and fixation. Confirm the reduction on fluoroscopic imaging.



Place the volar hook guide next to the provisional K-wire or use the volar hook guide distal loop to position the guide over the K-wire.

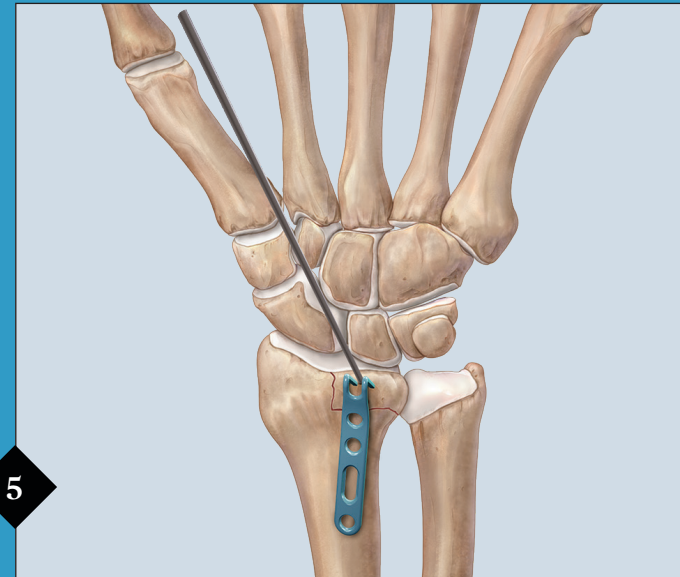


Once positioned distally, a second K-wire can be inserted into the proximal portion of the guide for temporary fixation. Confirm positioning of the guide under fluoroscopic imaging to ensure that the tynes of the hook plate will capture this distal fragment.

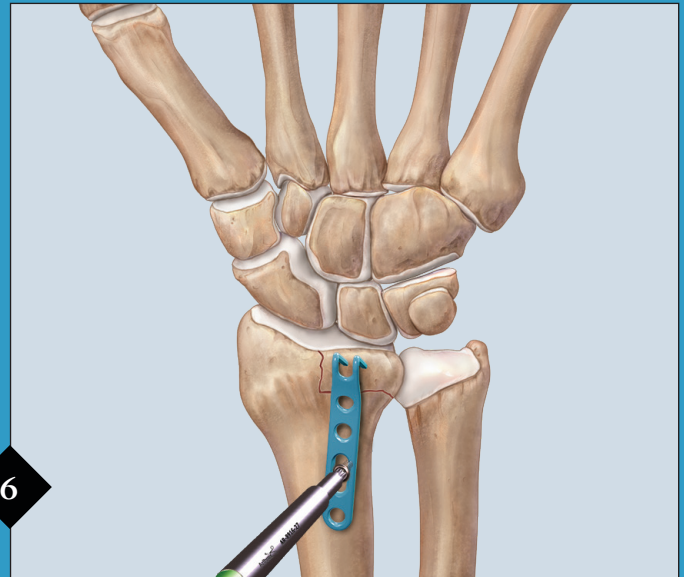


Next, drill through the distal drill guides using the 1.7 mm drill bit up to the second cortex. (Bend or cut the distal K-wire out of the way if necessary.) Remove the proximal K-wire (in the shaft of the radius) to enable the guide to be removed. Leave the distal K-wire in place as this is maintaining your reduction of the fracture. Mark the drill holes in the distal fracture fragment with a marker pen to aid in their visualization.

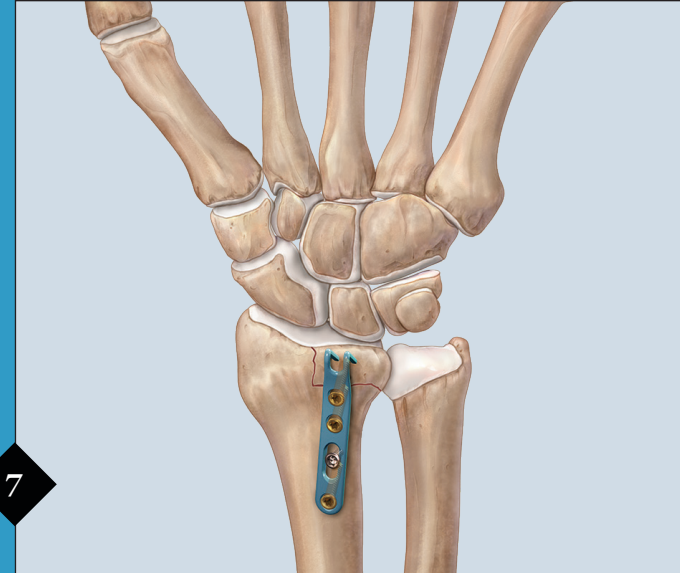
Arthrex Volar Hook Plating Technique Guide



Position the hook plate (AR-8916VH-xx) over the predrilled holes and insert the plate tynes with manual pressure into the predrilled holes. To help with placement of the plate, you may consider cutting a few millimeters off one of the tynes with a wire cutter. Place the longer tine in a drill hole and the shorter tine in the other drill hole.



Place a 2.4 mm nonlocking screw into the shaft to secure the plate to the radius. Distal K-wire can be removed at this time as the plate tynes will hold fragment fixation. Confirm reduction of the fracture under fluoroscopy.



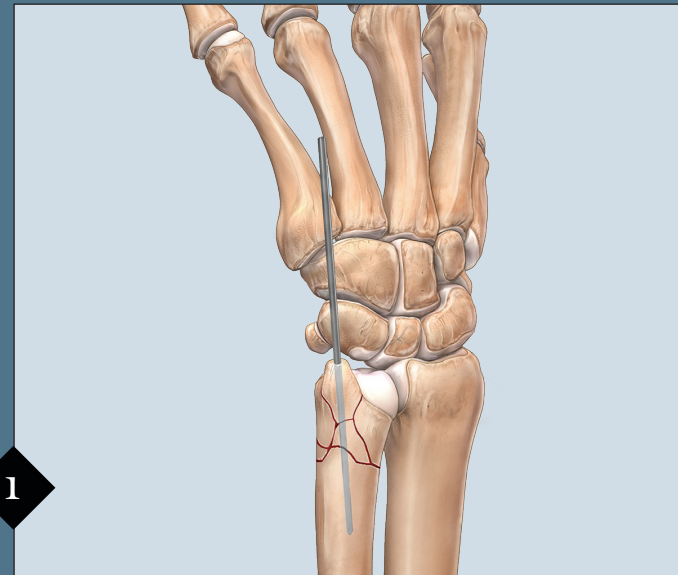
The most distal drill holes can be filled with a 2.4 mm VAL screw angled from proximal volar to distal dorsal, thereby supporting the subchondral bone. Fill the remaining 2.4 mm locking holes with the VAL locking screws using the threaded locking guide or VAL for final fixation.



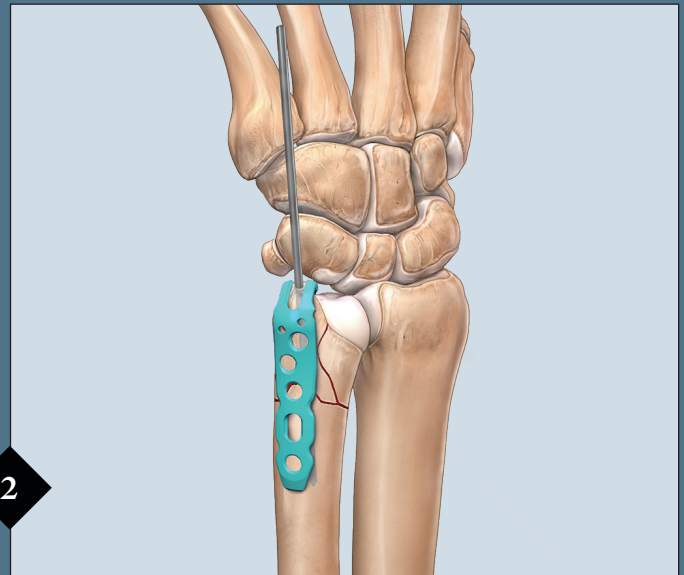
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Arthrex® Ulna Hook Plating Technique Guide

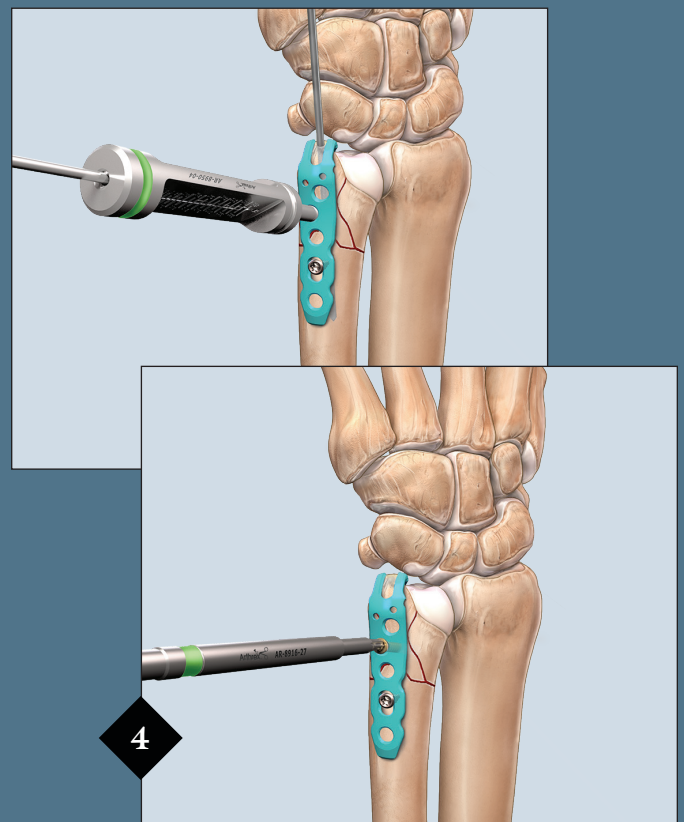
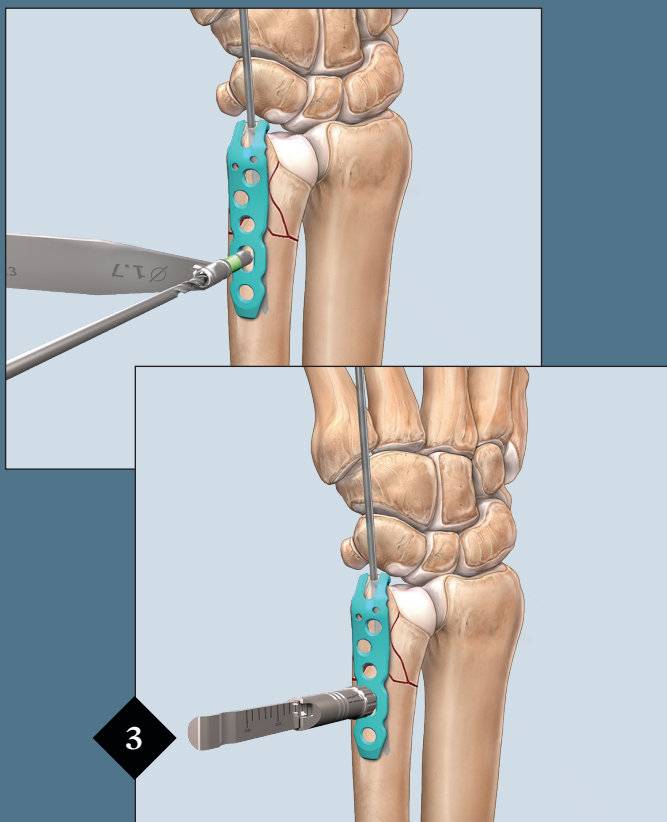
A straight longitudinal incision is made over the distal ulna, between the tendons of the extensor and flexor carpi ulnaris. Care is taken to avoid injury to the dorsal branch of the ulnar nerve. The fracture site is exposed.



Under direct visualization, the fragments are reduced and a temporary distal stabilizing K-wire can be used for temporary fixation.



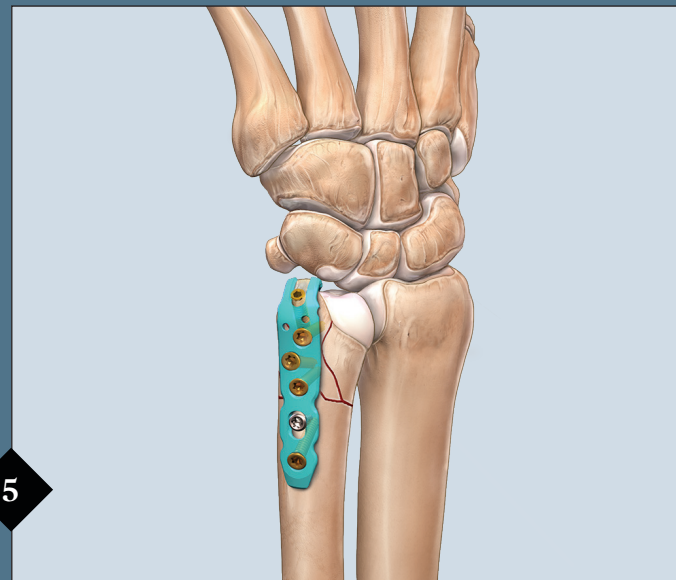
The ulna hook plate is pre-contoured to fit the distal ulna and allows for fixation of the ulnar styloid with the pointed hooks. These hooks can engage the distal ulna and slide over the K-wire.



Once the reduction is confirmed under fluoroscopy, place a 2.4 mm nonlocking screw in the oblong slot to reduce the plate to bone.

Once satisfactory reduction and plate positioning is confirmed on fluoroscopy, the remaining locking holes can be filled with 2.4 mm VAL locking screws using either the threaded locking tower, VAL drill guide, or short drill sleeves.

Arthrex Ulna Hook Plating Technique Guide

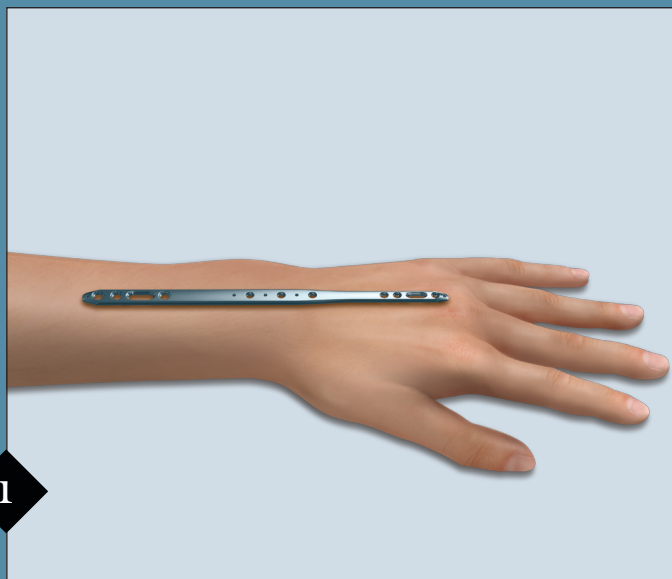


5
A 2.5 mm Headless Compression FT Screw can be inserted between the hook tynes for additional fixation if desired. Be aware of distal locking screw trajectory if placing this screw. Check stability of the DRUJ.

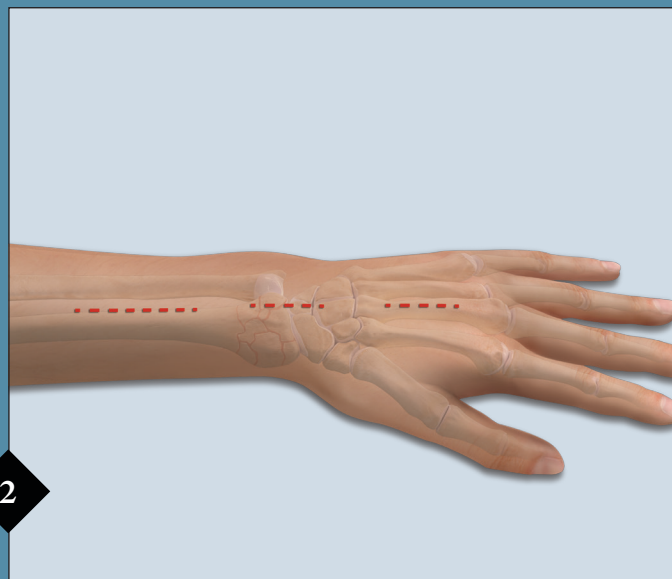


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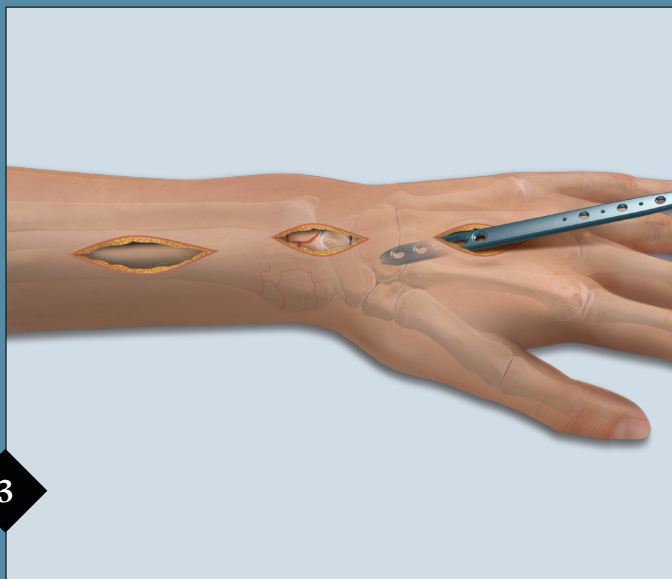
Arthrex® Spanning Plate Technique Guide



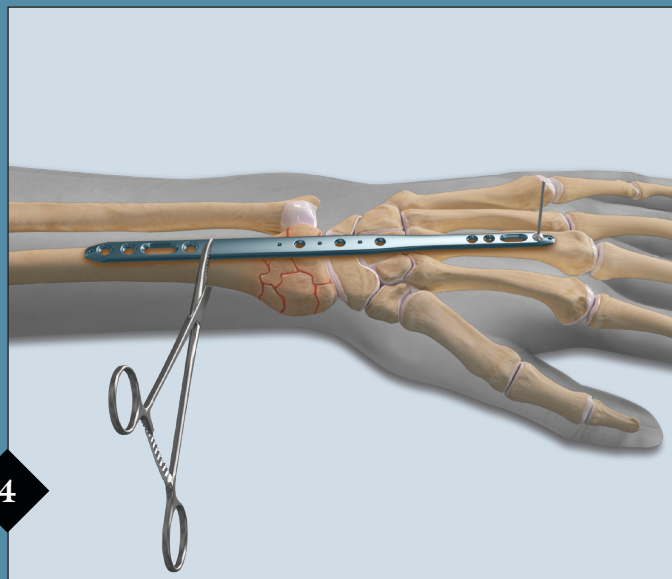
Position plate on the skin and use fluoroscopy to assess ideal positioning of the plate. The plate can be positioned over the 2nd or 3rd metacarpal distally and the radial shaft proximally. Additional screw holes in the central part of the plate can be utilized for additional fixation in the distal radius or carpus as desired.



A distal incision over the 2nd or 3rd metacarpal is made as well as over the radial shaft. Care is taken to protect the dorsal sensory cutaneous nerve. The radial incision can be made dorso-radial from the midline to facilitate clamping of the plate on the bone. An additional incision over Lister's tubercle to mobilize the EPL can be made to facilitate fracture reduction and placement of additional screws if desired.

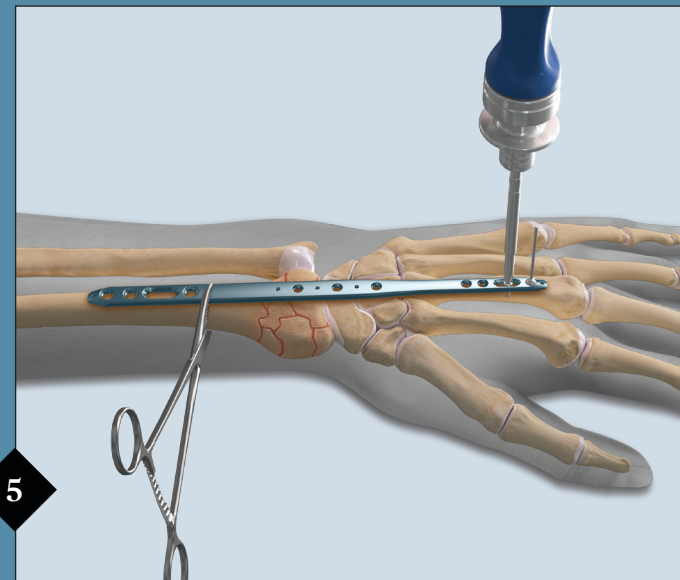


Using a Freer elevator or tendon passer, a passage is made underneath the extensor compartment tendons to facilitate plate placement. The plate can be placed from proximal to distal or distal to proximal, ensuring it slides underneath the extensor tendons without their entrapment.

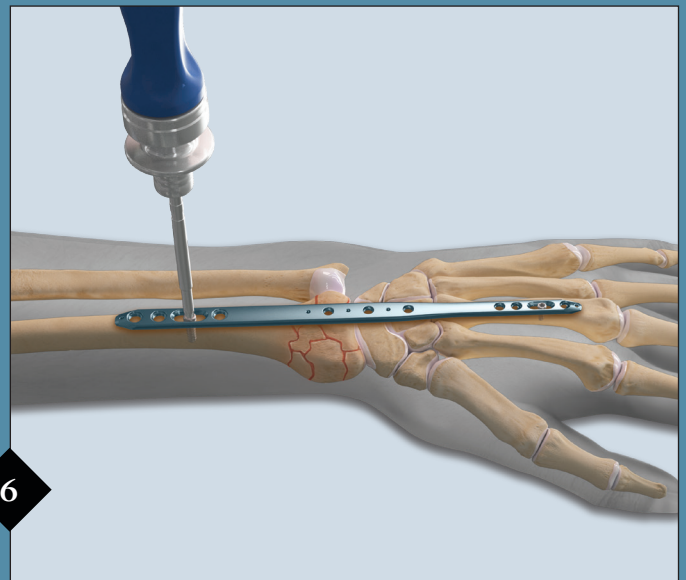


The plate is positioned over the second or third metacarpal as desired. A serrated bone clamp can be used to provisionally fix the plate proximally or BB-Tak™ anchors can be used to provisionally fix the plate in both proximal and distal holes.

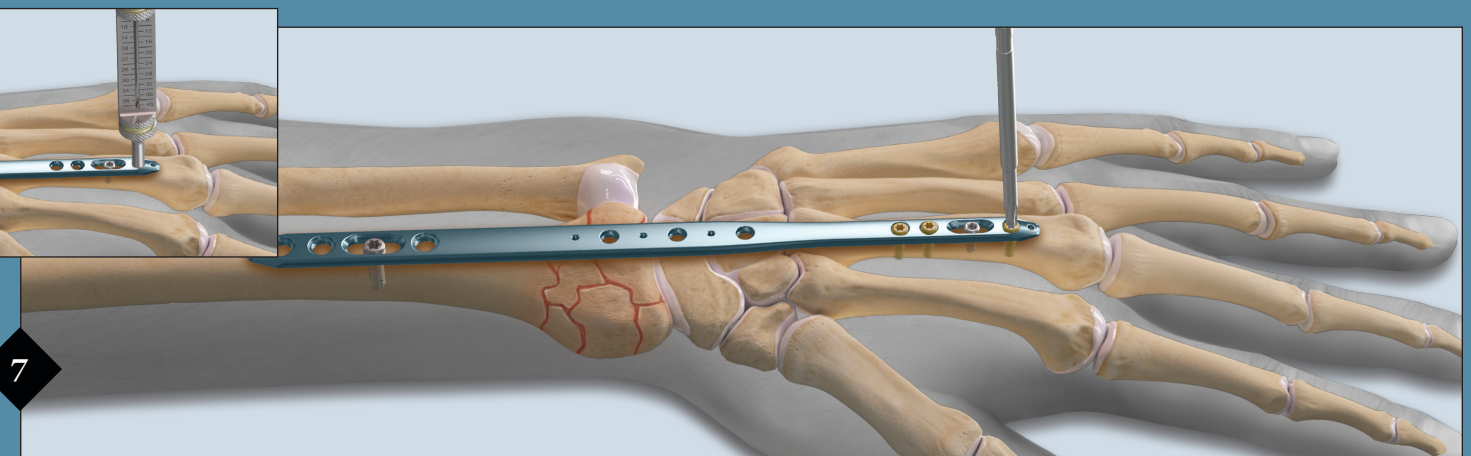
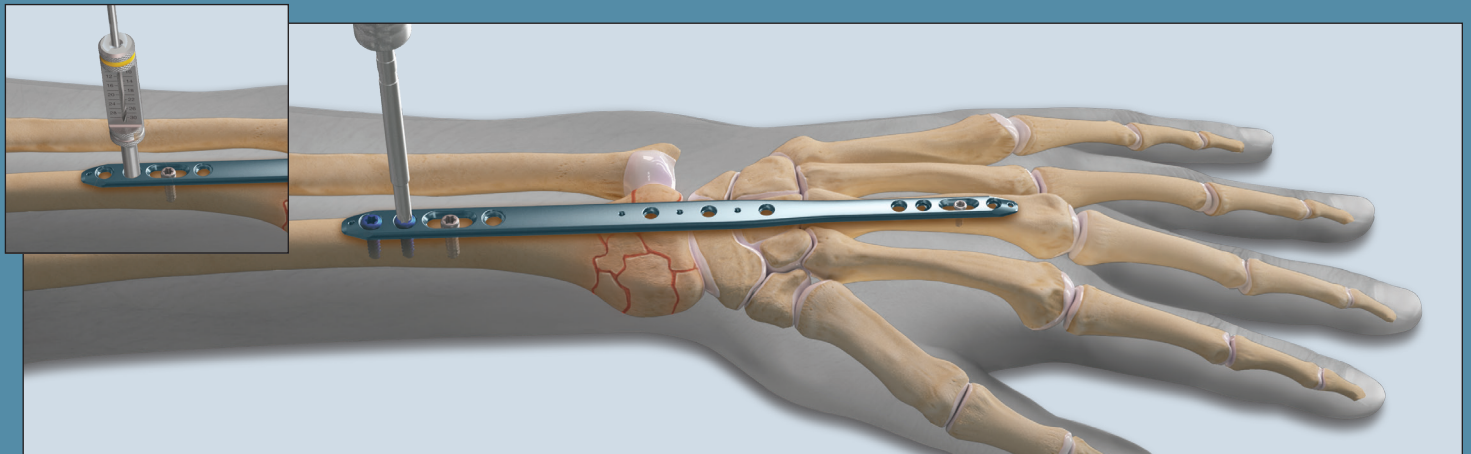
Arthrex® Spanning Plate Technique Guide



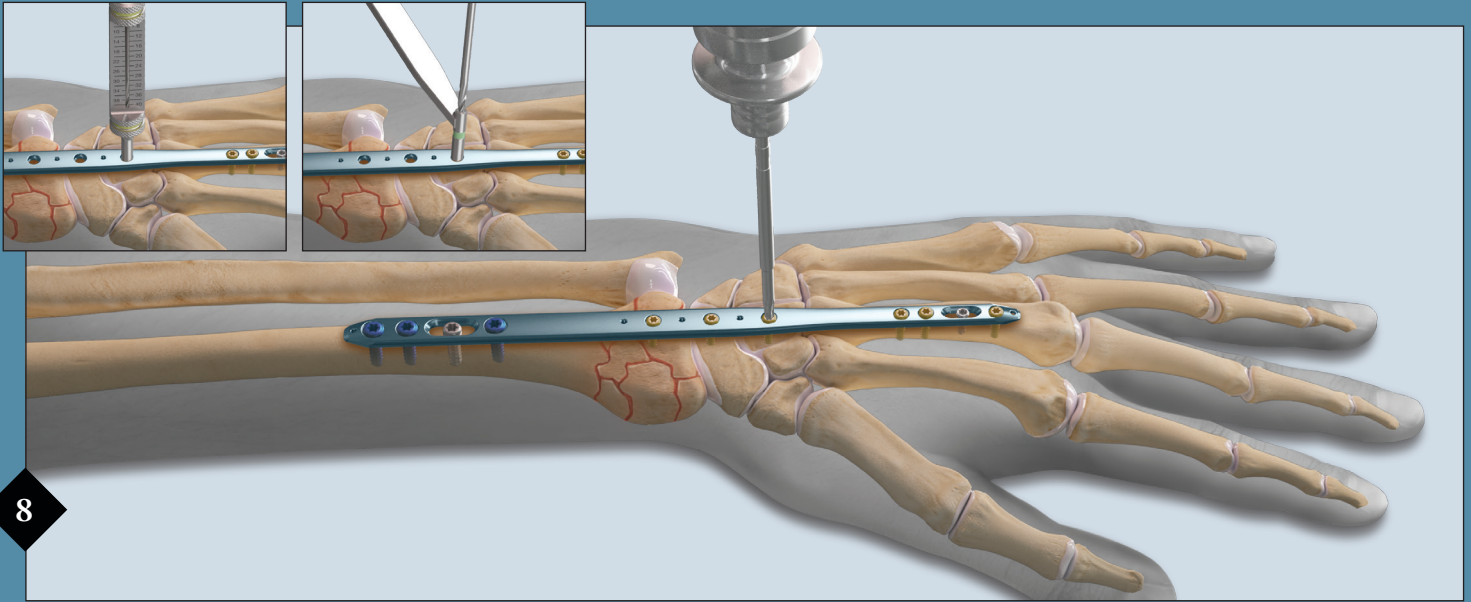
5 With the wrist in neutral rotation, the plate is first secured to the metacarpal. A 2.4 mm nonlocking cortex screw is used distally to secure the plate to the bone and allow for slight adjustment. Ensure that the plate is well positioned to ensure bicortical placement of the metacarpal screw's site is exposed.



6 Ensure that the plate is appropriately positioned on the radius proximally. Confirm position of the central holes if support of the distal radius fracture fragments are needed. Center the plate over the radial shaft, apply traction and place a nonlocking 3.5 mm screw into the distal end of the oblong shaft slot of the plate. This will allow for additional distraction if needed.

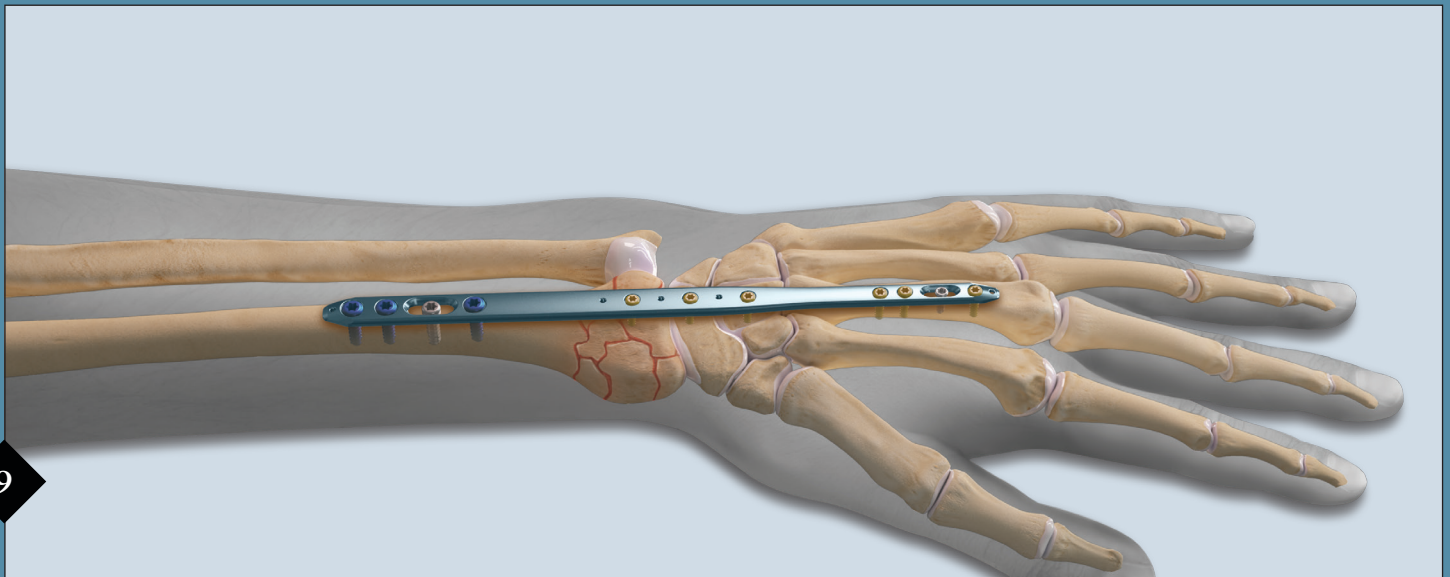


7 Once desired distraction and reduction is achieved, fill remaining shaft holes with 3.5 mm locking screws using the locking drill guide in the shaft and 2.4 mm screws in the metacarpal shaft. The 2.4 mm locking screws can be inserted with either the threaded locking drill guide or the variable angle drill guide into the remaining metacarpal holes. Ensure that the carpus is not over distracted and one can easily range the fingers from full extension to flexion.



8

If optional subchondral or carpal support is needed, the central holes can be filled with 2.4 mm screws as desired using either the locking drill guides or the VAL drill guide.



9

Confirm final plate and screw placement on x-ray.



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Ordering information for all five techniques is located on the inside cover of this technique packet.

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May not be ordered separately.



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