

AOS™

ADVANCED ORTHOPAEDIC SOLUTIONS



Clavicle

PLATING SYSTEM
Surgical Technique

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System Overview

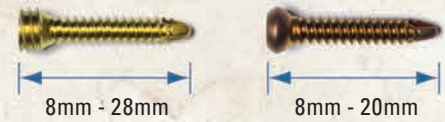
Lateral Superior Plates



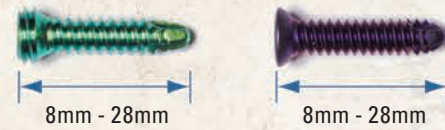
Midshaft Superior Plates



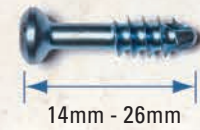
2.7mm Cortical Screws



3.5mm Cortical Screws



4.0mm Cancellous Lag Screw



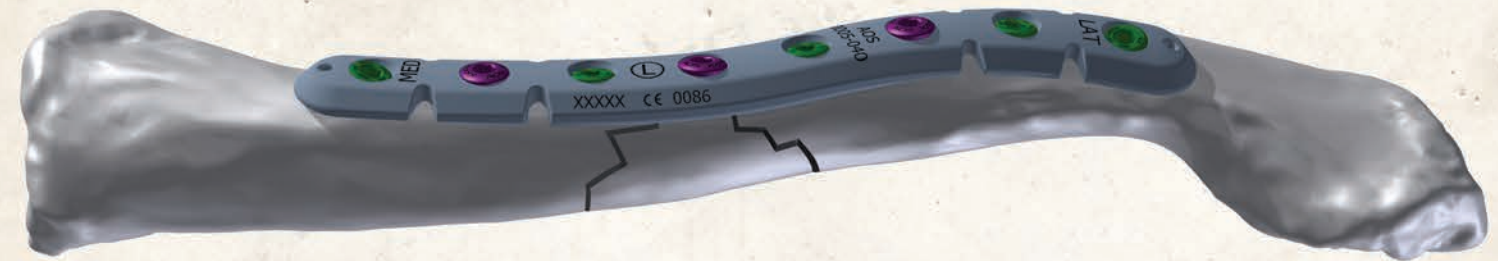
Depth Limiting (20mm Max)

Anterior Plates



Anatomical Fit & Bow

Midshaft Superior Plate



Lateral Superior Plate



Anterior Plate

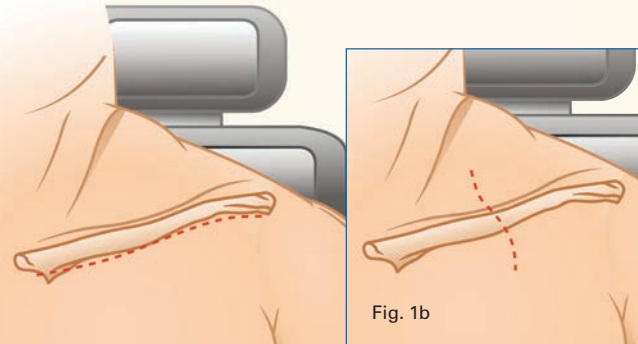


AOS Clavicle System Surgical Technique

Patient Positioning & Surgical Approach

Position patient in beach/captain's chair position. Place a bolster between shoulder blades and prep limb free to facilitate fracture reduction during case.

Fig. 1a



Make 4cm-6cm transverse incision parallel to the long axis just beneath the clavicle (Fig. 1a) or 2cm-4cm perpendicular incision to the long axis over fracture (Fig. 1b). Create full thickness subcutaneous flaps, taking care to preserve and protect cutaneous nerves. Cut through muscle directly down to clavicle bone and make full-thickness subperiosteal flaps. Place soft-tissue friendly self-retaining retractors as needed.

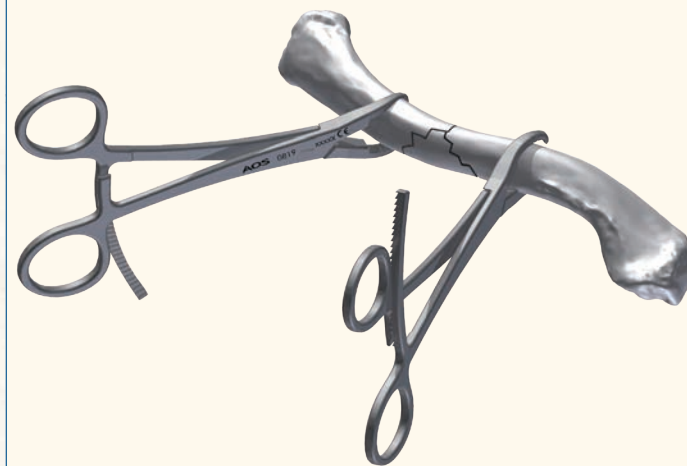
Step 1

Fracture Reduction

Reduce fracture using **Lobster Claw Forceps (0819)** on both the medial and lateral fragments.

Tip: Use **Plate Clamp Forceps (0824)** to secure the plate to both sides of the fracture while reducing.

Tip: Lifting the arm superiorly helps reduce the fracture.



Step 2

Plate Placement/Additional Plate Contouring

Plate Bending

If additional contouring is required **Plate Benders (0823)** are available to achieve an exact fit to the clavicle. Bend only at designated bending notch locations.

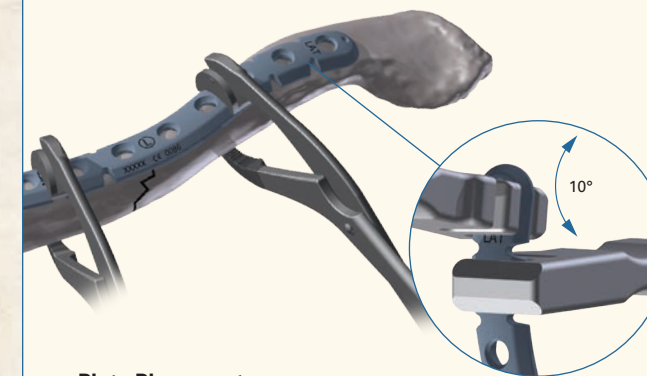


Plate Placement

Use forceps and/or K-wires to stabilize plate placement on bone.

Tip: It is ideal to have 3 holes both medial and lateral to the fracture fragments.

Note: For fractures that are more medial or lateral than the central-third, the plate may be rotated 180° or a plate of the opposite side may be used.

Step 5

3.5mm Non-Locking Screw Insertion

Drills, Drill Guides and Taps are color coded by screw color.

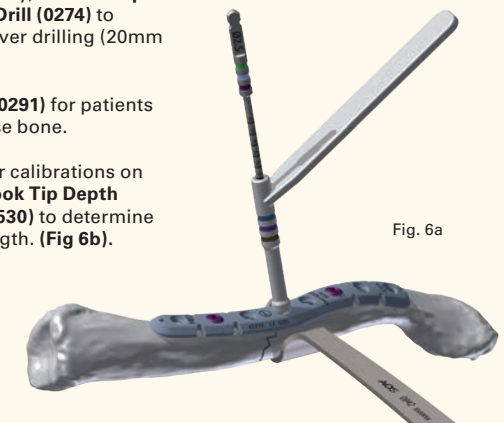
Insert **Drill Guide (0330)** into plate and drill using **2.5mm Calibrated Drill (0253)**.

Note: The **Clavicle Elevator (0842)** can be placed under the clavicle to prevent over penetration when drilling. (Fig. 6a).

Alternatively, use the **Depth Limiting Drill (0274)** to prevent over drilling (20mm max).

Use **Tap (0291)** for patients with dense bone.

Use either calibrations on drill or **Hook Tip Depth Gauge (0530)** to determine screw length. (Fig 6b).

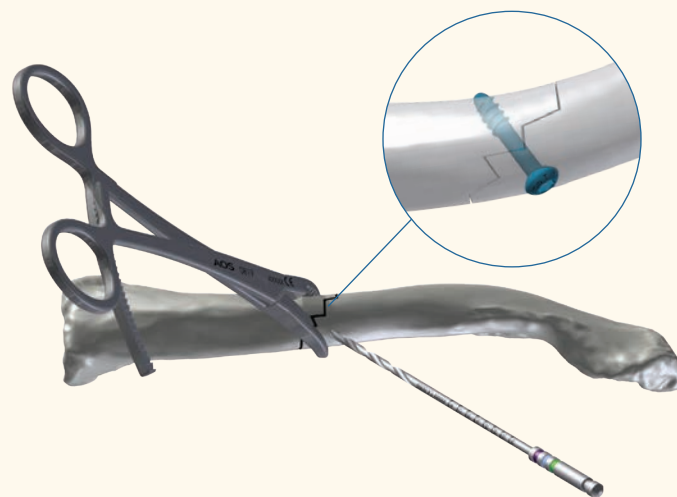


Step 6

Lag Screw Reduction

Lag Screws may be used for interfragmentary fixation by drilling through both cortices with the **2.5mm Drill (0253)**.

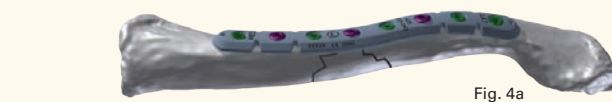
A **Countersink (0278)** is available to recess the head of the 4.0mm Lag Screw.



Step 3

Plate Selection

The appropriate sized left or right Superior (Fig. 4a), Anterior (Fig. 4b), or Lateral (Fig. 4c) plate is selected. When selecting appropriate Superior plate (Fig. 4a), be sure to position it directly superior on the clavicle and avoid inadvertently positioning anteriorly.



Step 4

3.5mm Locking Screw Insertion

Insert **Locking Drill Guide (0324)** in desired plate hole.

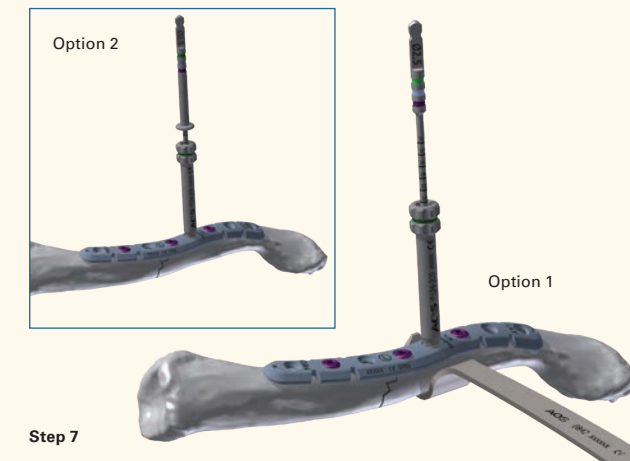
Option 1:

Insert **2.5mm Calibrated Drill (0253)** to desired depth and determine screw length from drill calibrations.

Option 2:

Use **Depth Limiting Drill (0274)** in desired plate hole to prevent over drilling (20mm max).

Use **Tap (0291)** for patients with dense bone.



Step 7

2.7mm Non-Locking and Locking Screws

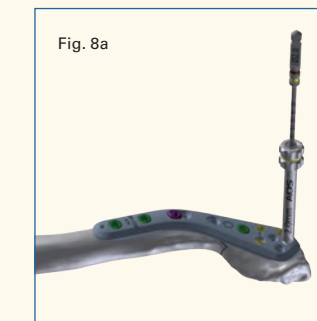
Locking Screws (Fig. 8a).

Screw the **2.0mm Drill Guide (0325)** into a 2.7mm hole. Use the **2.0mm Calibrated Drill (0252)** to drill to desired depth.

Use either calibrations on drill or **Hook Tip Depth Gauge (0530)** to determine length for locking and non-locking screws.

Non-Locking Screws (Fig. 8b).

Insert **Drill Guide (0330)** into plate and drill using **2.0mm Calibrated Drill (0252)**.



Step 8