LOQTEQ®

Clavicle Plates 2.7/3.5
Surgical Technique

Locking Compression Technology by aap

Disclaimer

This surgical technique is exclusively intended for medical professionals, especially physicians, and therefore may not be regarded as a source of information for non-medical persons. The description of this surgical technique does not constitute medical advice or medical recommendations nor does it convey any diagnostic or therapeutic information on individual cases. Therefore, the attending physician is fully responsible for providing medical advice to the patient and obtaining the informed consent of the patient which this surgical technique does not supersede.

The description of this surgical technique has been compiled by medical experts and trained staff of aap Implantate AG with utmost diligence and to the best of their knowledge. However, aap Implantate AG excludes any liability for the completeness, accuracy, currentness, and quality of the information as well as for material or immaterial damages arising from the use of this information.

Content

The LOQTEQ® Clavicle Plates 2.7/3.5 are part of the LOQTEQ® plating system and combine angular stability with modern plate design. The anatomically preformed plates are available in different designs:

- LOQTEQ® Clavicle Shaft Plate 3.5
- LOQTEQ® Superior Lateral Clavicle Plate 2.7/3.5
- LOQTEQ® AcroPlate 3.5

Material

The LOQTEQ® implants and instruments are manufactured using high-quality materials, which have been proven to be successful in medical technology for decades. The anatomical plates and bone screws are made of titanium alloy. All materials employed comply with national and international standards. They are characterized by good biocompatibility, good mechanical properties and insensitivity against allergic reactions. LOQTEQ® implants show a highly polished surface.

Indications/Contraindications

Indications

LOQTEQ® AcroPlate® 3.5

- Fixation of lateral clavicle fractures and dislocations of the acromioclavicular joint

LOQTEQ® Clavicle Shaft Plate 3.5 and LOQTEQ® Superior Lateral Clavicle Plate 2.7/3.5

- Fixation of fractures, mal-unions, and non-unions of the clavicle
- Osteotomies of the clavicle

Contraindications

- Infection or inflammation (localized or systemic)
- Allergies against the implant material
- High risk patients for anesthesia
- Severe soft tissue swelling impacting normal wound healing
- Insufficient soft tissue coverage
- Fractures in children and adolescents with epiphyseal plates not yet ossified

◆ **Caution:**
aap bone screws are neither designed nor approved for bolting or fixation of any elements (pediculi) of the cervical, thoracic or lumbar spine.

Detailed information on indications, contraindications and a complete list of adverse effects is included in the instructions for use.

Processing (Sterilization & Cleaning)

aap markets unsterilized products which are appropriately labeled and must be appropriately processed before use (see Instructions for Use, chapter „Processing of Medical Devices").

Never use damaged implants or implants from damaged packaging.

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Features & Benefits

LOQTEQ® Clavicle Shaft Plate 3.5

Anatomic plate designs minimize the need for intraoperative contouring

Available for left and right sides

All plate holes, apart from oblong holes, accept locking and non-locking screws ø3.5 mm

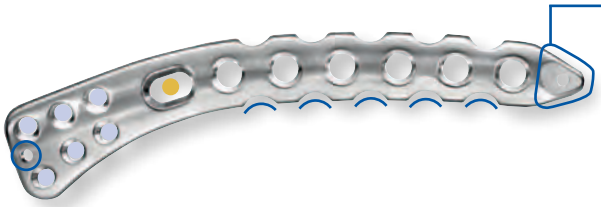
Bendable segments enhance additional Contouring

Midshaft plates feature a reinforced middle part to resist the load in the fracture zone

Oblong holes allow fracture compression / reduction (6 and 7hole midshaft plates)

Oblong holes for primary fixation

LOQTEQ® Superior Lateral Clavicle Plate 2.7/3.5

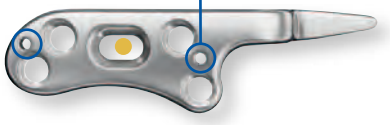


The flattened end of the plate is designed for tissue preserving, submuscular insertion

Lateral plate holes accept ø2.7 mm locking and ø2.5 non-locking screws

Minor contact undercuts help to preserve the blood supply to the periosteum

LOQTEQ® AcroPlate 3.5



K-wire holes for temporary fixation of the plate to the bone

Additional Features AcroPlate

Wide plate body with slightly concave underside is optimally adapted to the lateral clavicle anatomy

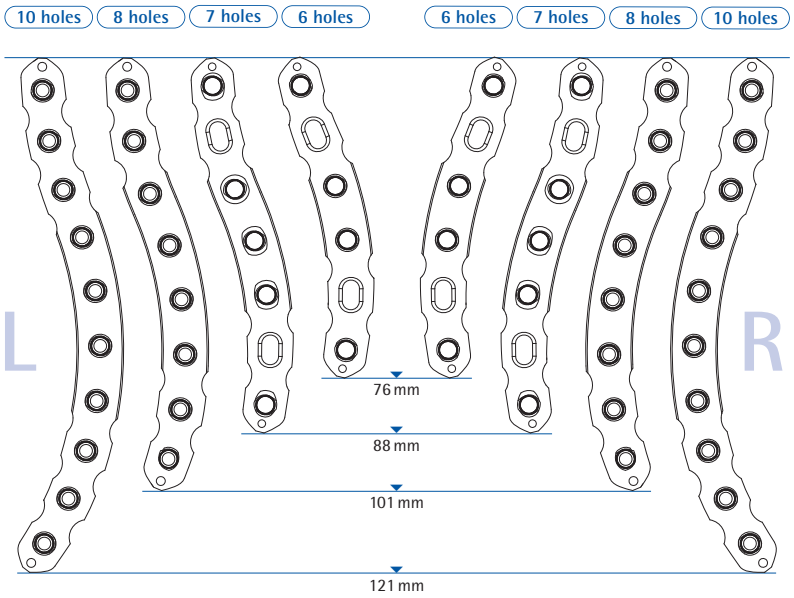
Hook placement dorsal to the joint to protect ligaments

Flat, wide hook shape (105° angle) - adapted to the acromioclavicular angle

Shallow hook depth and anatomical hook shape for reducing the risk of subacromial impingement

Preoperative planning

- Evaluate the fracture situation and select the appropriate plate size and position with an X-ray. Consider the use of independent lag screws, if necessary.
- Preoperatively assess the fracture situation using 3D CT imaging where necessary.



Patient positioning

- The patient is positioned in the beach chair position. A bolster may between the shoulder blades and the head may facilitate reduction. Ensure that the arm can be manipulated intraoperatively.

Approach

- medial to lateral transverse incision, parallel to the axis of the clavicle
- vertical incision along Langer's line
- Dissect down to the faccia to expose the Fracture

◆ **IMPORTANT:**
Care should be taken to preserve the periosteum for maintaining good vascularity and promote fracture healing.

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Preparing the plate

INSTRUMENTS	ART.-NO.
Bending iron 1 for small fragment plates, closed	IP 8405-00
Bending iron 2 for small fragment plates, closed	IP 8405-50

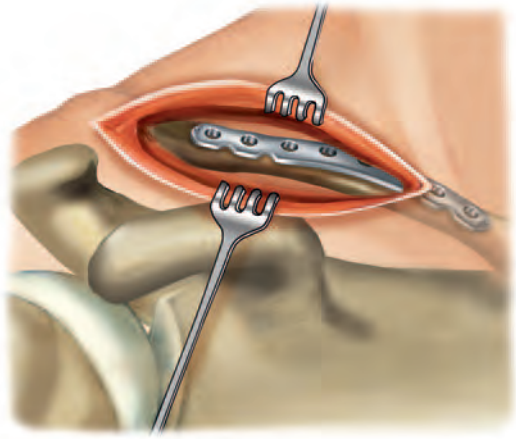
- Select the plate that fits the fracture pattern and patient's anatomy

◆ **NOTE:**
Anatomically pre-contoured plates minimize the need for intra-operative bending. If necessary, the plates may be contoured with the bending irons.

◆ **CAUTION:**
Anatomically preformed plates should not be bent where possible. If plates are adapted to anatomical bone structures, the implants should not be bent back and forth repeatedly and excessively as this may result in implant failure. Damage caused by sharp edges should be avoided when bending. Locking plates should in principle be bent in the area between the holes only. Bending plates along locking holes may impair or even abolish their function completely. If angular stability is compromised by bending, a non-locking screw should be used.

Reduction and primary fixation

INSTRUMENTS	ART.-NO.
K-wire with trocar point, ø1.6, L 150	NK 0016-15



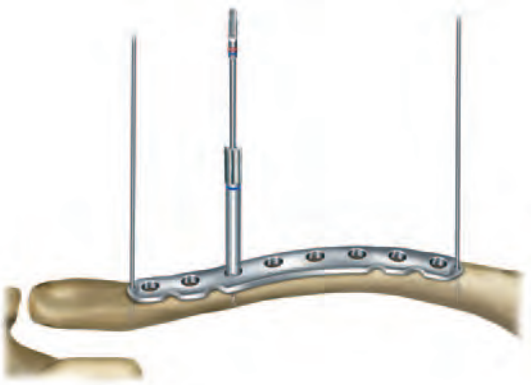
- Reduce and temporarily secure the fracture. Care must be taken when positioning K-wires or independent lag screws, that they do not interfere with the later plate position. Ensure the proper length, axial alignment and rotation of the clavicle.
- Insert and position the plate centrally over the fracture site. The plate is fixed to the bone with K-wires.
- Confirm anatomic reduction and plate position using fluoroscopy.

Insertion of locking screws (blue)

INSTRUMENTS	ART.-NO.
Drill guide for round hole LOQTEQ® 3.5, I-ø 2.8, blue	IU 8166-20
Twist drill ø2.7, L 150, coil 50, quick coupling, single use	IU 7427-15-1U
Depth gauge for screws 2.7-3.5, up to L 50	IS 7903-10
Screwdriver Duo, T15, quick coupling	IU 7825-56
Handle for quick coupling medium, cannulated	IU 7705-00
Handle with quick coupling, with torque limiter, 2.0 Nm	IU 7707-20
Double drill guide ø2.7/3.5, with spring aided centering	IU 8116-60

◆ **NOTE:**
If a combination of non-locking and locking screws is used, non-locking screws must be inserted first.

- Insert a drill guide (blue) into any chosen plate hole and drill to the desired depth using a drill ø2.7 mm (blue/red).



◆ **CAUTION:**
The screwdriver duo is not intended for screwing the drill guide into the plate.

- The screw length can be read off the calibration of the drill or determined using the depth gauge, after the drill guide has been removed.
- The stop ring facilitates reading off the calibration when attached to the drill. Push it down to the guide sleeve and remove it for reading the drilling depth in the gap of the ring.

◆ **NOTE:**
The screwdriver duo facilitates manual removal of the drill guide

- Select a locking screw (blue) of the proper length. Loosely insert the screw using the screwdriver T15 manually or under power with a low speed. Stop insertion when the screw head approaches the plate surface.

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◆ **NOTE:**
Ensure proper alignment of the screwdriver and that the screwdriver tip is fully seated in the screw head.

- Finish the screw manually using the screwdriver bit T15 with the torque limiting handle 2.0Nm. Optimal locking should be achieved with an audible and tactile click of the torque limiter.

◆ **CAUTION:**
As soon as the head of the screw reaches the plate hole, it is compulsory to switch to the torque limiter. In cases of uncommonly hard bone in the diaphysis, it may be necessary to finish the screw without the torque limiter to ensure the screw head is flush with the plate.

- To insert a cortical screw ø3.5 mm (gold) follow the instructions on page 10.

- Follow these instructions to insert further screws in the plate holes depending on the fracture pattern. Finally, confirm that all screw heads are flush with the plate surface. Check the result using fluoroscopy and adjust screw positioning or length as necessary.

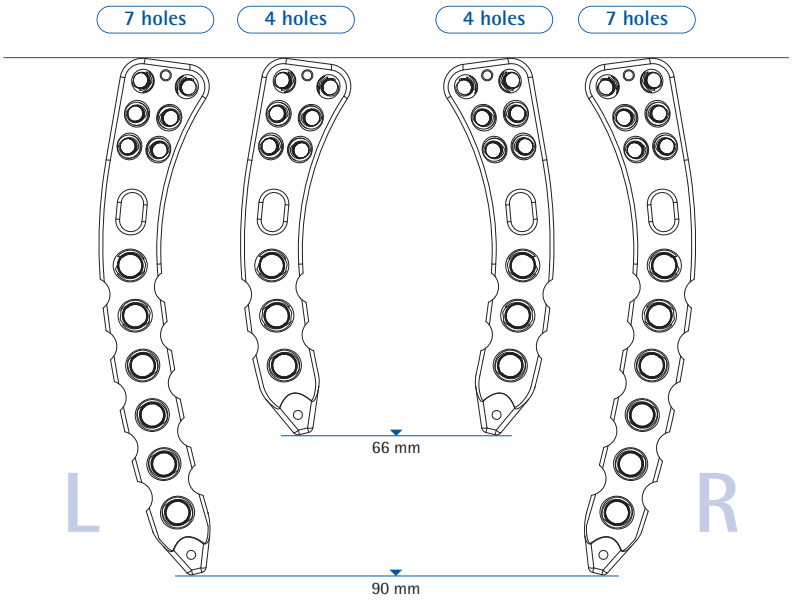
Lag screw technique

INSTRUMENTS	ART.-NO.
Double drill guide, with spring aided centering	IU 8116-60
Twist drill ø2.7, L 150, coil 50, quick coupling, single use	IU 7427-15-1U
Twist drill ø3.5, L 110, coil 50, quick coupling, single use	IU 7435-00-1U
Depth gauge for screws 2.7-3.5, up to L 50	IS 7903-10
Screwdriver Duo, T15, quick coupling	IU 7825-56
Handle for quick coupling medium, cannulated	IU 7705-00

- When using a cortical screw ø3.5 as a lag screw, use the ø3.5 end of the double drill guide and start drilling with a drill ø3.5 mm through the near cortex or perforating the fracture line. Then center the other side of the drill guide in the gliding hole and drill with a matching diameter drill the desired depth. Determine the screw length using the depth gauge and insert a non-locking cortical screw of the appropriate length.

Preoperative planning

- Evaluate the fracture situation and select the appropriate plate size and position with an X-ray. Consider the use of independent lag screws, if necessary.
- Preoperatively assess the fracture situation using 3D CT imaging where necessary.



Patient positioning

- The patient is positioned in the beach chair position. A bolster may between the shoulder blades and the head may facilitate reduction. Ensure that the arm can be manipulated intraoperatively.

Approach

- medial to lateral transverse incision, parallel to the axis of the clavicle
- vertical incision along Langer's line
- Dissect down to the faccia to expose the fracture.

◆ **IMPORTANT:**
Care should be taken to preserve the periosteum to maintain good vascularity and promote fracture healing.

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Preparing the plate

INSTRUMENTS	ART.-NO.
Bending iron 1 for small fragment plates, closed	IP 8405-00
Bending iron 2 for small fragment plates, closed	IP 8405-50

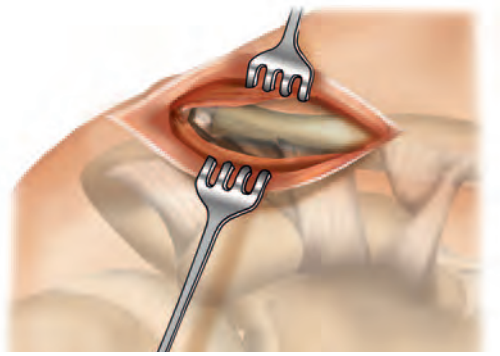
- The plate is placed on the superior aspect of the clavicle with the broad plate section covering the lateral part.

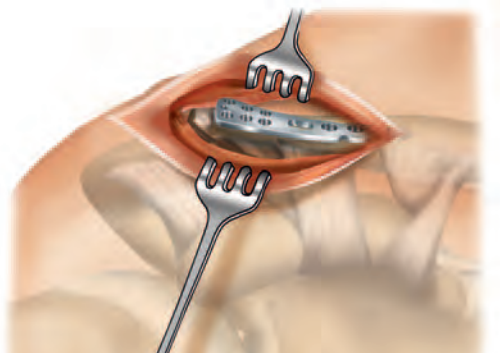
◆ **NOTE:**
Anatomically pre-contoured plates minimize the need for intra-operative bending. If necessary, the plates may be contoured with the bending irons.

◆ **CAUTION:**
Anatomically preformed plates should not be bent where possible. If plates are adapted to anatomical bone structures, the implants should not be bent back and forth repeatedly and excessively as this may result in implant failure. Damage caused by sharp edges should be avoided when bending. Locking plates should in principle be bent in the area between the holes only. Bending plates along locking holes may impair or even abolish their function completely. If angular stability is compromised by bending, a non-locking screw should be used.

Reduction and primary fixation

INSTRUMENTS	ART.-NO.
K-wire with trocar point, ø1.6, L 150	NK 0016-15





- Reduce and temporarily secure the fracture. Care must be taken when positioning K-wires or independent lag screws, that they do not interfere with the later plate position. Ensure the proper length, axial alignment and rotation of the clavicle.

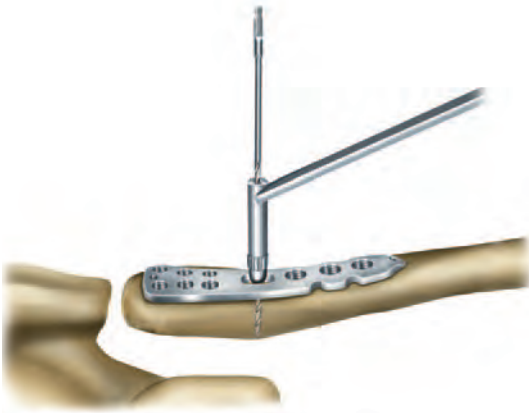
- Position the plate on the superior aspect of the clavicle with the broad section covering the lateral part. Secure the plate to the bone with K-wires or with a cortical screw in the oblong hole. Using a cortical screw in the oblong hole for primary fixation allows for corrections in plate positioning.

- Confirm anatomic reduction and plate position using fluoroscopy.

Insertion of cortical screws (gold)

INSTRUMENTS ø3.5	ART.-NO.
Double drill guide, with spring aided centering	IU 8116-60
Twist drill ø2.7, L 150, coil 50, quick coupling, single use	IU 7427-15-1U
Depth gauge for screws 2.7-3.5, up to L 50	IS 7903-10
Screwdriver Duo, T15, quick coupling	IU 7825-56
Handle for quick coupling medium, cannulated	IU 7705-00

INSTRUMENTS ø2.5	ART.-NO.
Double drill guide ø2.0 / 2.5	IU 8125-00
Twist drill ø2.0, L 110, coil 25, quick coupling, single use	IU 7420-10-1U
Depth gauge for screws 2.7-3.5, up to L 50	IS 7903-10
Screwdriver Duo, T8, quick coupling	IU 7815-56
Handle for quick coupling medium, cannulated	IU 7705-00



◆ **Note:**
If a combination of non-locking and locking screws is used, non-locking screws must be inserted first.

- To insert a cortical screw ø3.5 mm (gold) in the oblong hole, place the double drill guide in the center of the oblong hole and press it down. Chose a drill and drill through both cortices. Determine the length of the screw using the depth gauge and insert a screw of appropriate length using the screwdriver.

◆ **Note:**
Ensure proper alignment of the screwdriver and that the screwdriver tip is fully seated in the screw head.

- Follow the same steps when inserting a ø3.5 mm cortical screw into any shaft hole.

◆ **Caution:**
Avoid over-penetration of the clavicle´s far cortical bone due to the risk of damage toneurovascular structures located inferiorly.

- To insert a cortical screw ø2.5 mm (gold) in a lateral plate hole, insert a threaded drill guide (light blue) and drill to the desired depth with a drill ø2.0 mm (light blue). The screw length can be read off the calibration of the drill guide or determined using the depth gauge, after the drill guide has been removed.Insert a screw of appropriate length using the screwdriver T8.

- Check plate position using fluoroscopy and adjust screw positioning or length as necessary.

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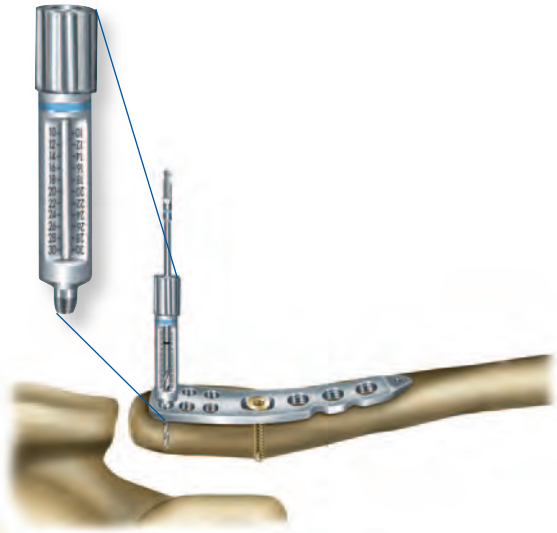
Insertion of locking screws (light blue)

INSTRUMENTS	ART.-NO.
Drill guide LOQTEQ® 2.7, scale to L 75, drill ø2.0, light blue	IU 8169-20
Twist drill ø2.0, L 110, coil 25, quick coupling, single use	IU 7420-10-1U
Depth gauge for screws 2.7-3.5, up to L 50	IS 7903-10
Screwdriver Duo, T8, quick coupling	IU 7815-56
Handle round with quick coupling, with torque limiter 1.5 Nm	IU 7707-00

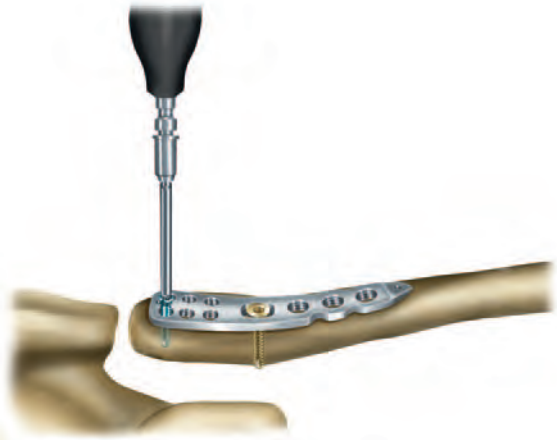


- Insert a drill guide (light blue) into any chosen lateral plate hole and drill to the desired depth using a drill ø2.0 mm (light blue).

◆ **CAUTION:**
The screwdriver duo is not intended for screwing the drill guide into the plate.

- The screw length can be read off the calibration of the drill or determined using the depth gauge, after the drill guide has been removed.

◆ **NOTE:**
The screwdriver duo facilitates manual removal of the drill guide.



- Select a locking screw (light blue) of the proper length. Loosely insert the screw using the screwdriver T8 manually or under power with a low speed. Stop insertion when the screw head approaches the plate surface.

◆ **NOTE:**
Ensure proper alignment of the screwdriver and that the screwdriver tip is fully seated in the screw head.

- Finish the screw manually using the screwdriver bit T8 with the torque limiting handle 1.5Nm. Optimal locking should be achieved with an audible and tactile click of the torque limiter.

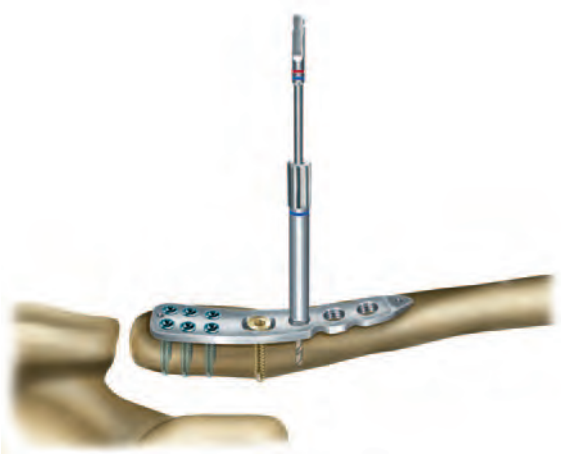
◆ **CAUTION:**
As soon as the head of the screw reaches the plate hole, it is compulsory to switch to the torque limiter. In cases of uncommonly hard bone in the diaphysis, it may be necessary to finish the screw without the torque limiter to ensure the screw head is flush with the plate.

- Follow these instructions to insert further screws in the plate holes depending on the fracture pattern. Finally, confirm that all screw heads are flush with the plate surface. Check the result using fluoroscopy and adjust screw positioning or length as necessary.

◆ **CAUTION:**
Avoid over-penetration of the clavicle's far cortical bone due to the risk of damage to neurovascular structures located inferiorly.

Insertion of locking screws (blue)

INSTRUMENTS	ART.-NO.
Drill guide for round hole LOQTEQ® 3.5, l-ø2.8, blue	IU 8116-20
Twist Drill ø2.7, L 150, coil 50, quick coupling, single use	IU 7427-15-1U
Depth gauge for screws 2.7-3.5, up to L 50	IS 7903-10
Screwdriver Duo, T15, quick coupling	IU 7825-56
Handle for quick coupling medium, cannulated	IU 7705-00



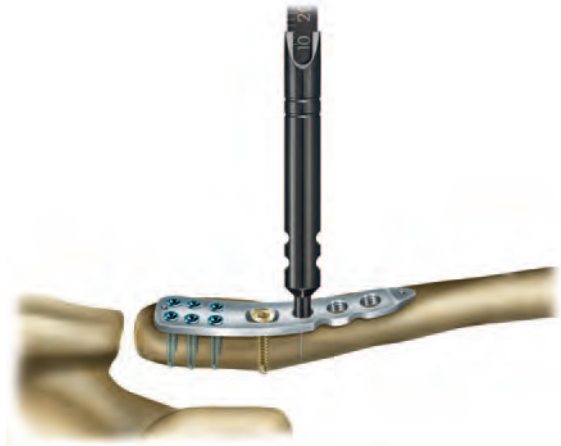
◆ **NOTE:**
If a combination of non-locking and locking screws is used, non-locking screws must be inserted first.

- Insert a drill guide (blue) into any chosen plate hole and drill to the desired depth using a drill ø2.7 mm (blue/red).

◆ **CAUTION:**
The screwdriver duo is not intended for screwing the drill guide into the plate.

- The screw length can be read off the calibration of the drill or determined using the depth gauge, after the drill guide has been removed.

- The stop ring facilitates reading off the calibration when attached to the drill. Push it down to the guide sleeve and remove it for reading the drilling depth in the gap of the ring.



◆ **NOTE:**
The screwdriver duo facilitates manual removal of the drill guide.

- Select a locking screw (blue) of the proper length. Loosely insert the screw using the screwdriver T15 manually or under power with a low speed. Stop insertion when the screw head approaches the plate surface.

◆ **NOTE:**
Ensure proper alignment of the screwdriver and that the screwdriver tip is fully seated in the screw head.

- Finish the screw manually using the screwdriver bit T15 with the torque limiting handle 2.0Nm. Optimal locking should be achieved with an audible and tactile click of the torque limiter.

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◆ **Caution:**
As soon as the head of the screw reaches the plate hole, it is compulsory to switch to the torque limiter. In cases of uncommonly hard bone in the diaphysis, it may be necessary to finish the screw without the torque limiter to ensure the screw head is flush with the plate.

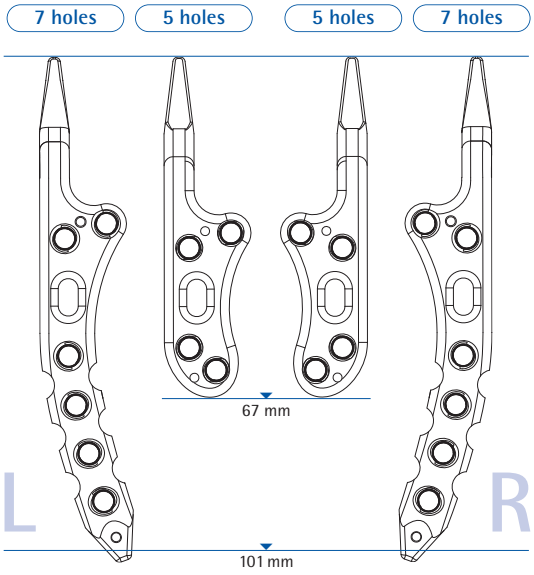
- Alternatively, insert a non-locking cortical screw ø3.5 mm (see section „Insertion of cortical screws (gold)").

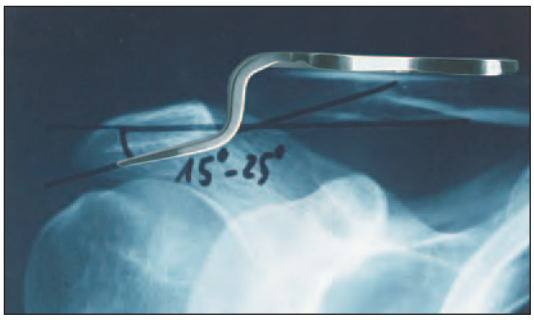
- Follow these instructions to insert further screws in the plate holes depending on the fracture pattern. Finally, confirm that all screw heads are flush with the plate surface and check the result using fluoroscopy. Confirm that all screw heads are flush with the plate surface and adjust screw positioning or length as necessary.

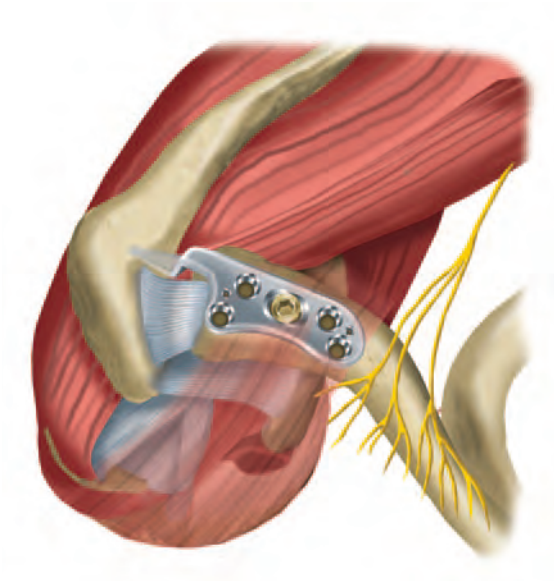
The LOQTEQ® AcroPlate 3.5 was developed with Dr. Dreithaler (Berlin, Germany) and is used for the treatment of AC joint luxations and lateral clavicle fractures. The described surgical procedure allows for anatomical reconstruction and early functional mobilization. The LOQTEQ® AcroPlate 3.5 maintains the reduction of the lateral clavicle and minimizes movement at the fracture site without limiting the rotation of the clavicle.

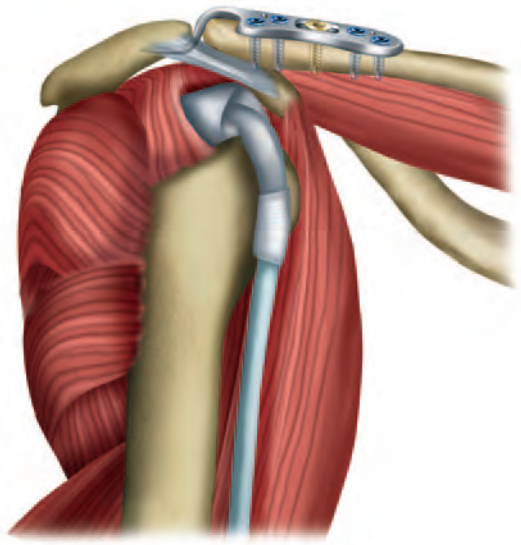
Preoperative planning

- Evaluate the fracture situation and select the appropriate plate size and position with an X-ray. Consider the use of independent lag screws, if necessary.
- The 5-hole plate is typically recommended for Tossy III or Rockwood III-VI AC joint dislocations, the 7-hole plate for lateral clavicle fractures.









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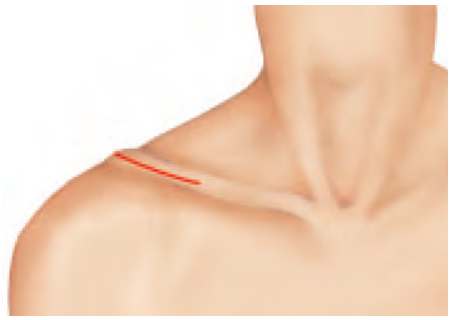
Patient positioning

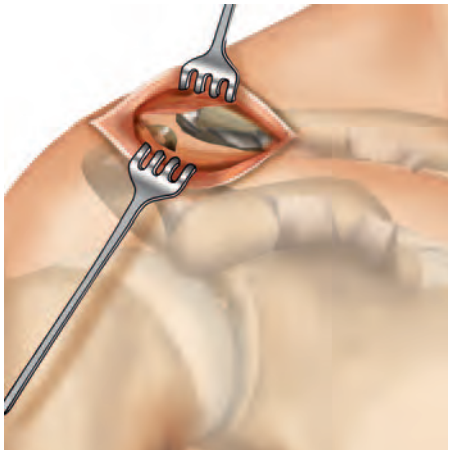
- The patient is positioned supine on a radiolucent operating table. The table is raised 30° to 40° at the shoulder level.
  Placing a bolster below the affected shoulder and tilting the head to the opposite side facilitate access. Ensure that the arm can be intraoperatively manipulated to facilitate access or repositioning.

Approach

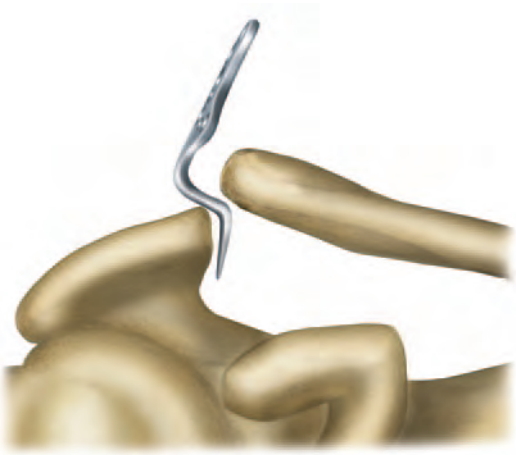
- Perform an approximately 4-6 cm long skin incision from the AC joint medially over the lateral clavicle.
- Alternatively: shoulder strap incision over the lateral clavicle
- Make subcutaneous tissue incisions and perform longitudinal separation of the muscle fascia on the lateral clavicle (deltoid / trapezius muscle).
- Using the elevatorium, detach the periosteum beneath the acromion dorsal to the lateral end of the clavicle.

INSTRUMENTS	ART.-NO.
Elevatorium small, bended	IU 6010-00





Reduction and primary fixation



INSTRUMENTS	ART.-NO.
K-wire with trocar point, ø1.6, L 150	NK 0016-15

- Insert the hook of the LOQTEQ® AcroPlate 3.5 beneath the acromion in the dorsal area of the AC joint.
- Reduction of the clavicle by pressing down on the plate.
- Position and temporarily secure the plate on the clavicle, either manually or using K-wires.
- K-wires can be placed through the plate to ensure correct repositioning. Reduction aids must not interfere with the definitive position of the implant.

◆ **Note:**
The plate hook must be aligned in touch with the acromion.

- The anatomically correct alignment of the clavicle and acromion should be performed under fluoroscopy. Ensure that the rotator cuff is not impinged by the AcroPlate.
- Determine the combination of screws to be used for fixation.

◆ **Note:**
If a combination of non-locking and locking screws is used, non-locking screws must be inserted first.

- To achieve stable fixation, at least three 3.5mm screws should be used.
- Follow the instructions on page 12 for the insertion of locking screws and page 10 for the insertion of non-locking screws ø3.5 mm.
- Suture the deltotrapezial fascia over the plate.

◆ **Caution:**
The stable, precise reconstruction of the deltotrapezial fascia is essential to ensure horizontal stability of the joint and soft tissue coverage.

◆ **Note:**
The coracoclavicular ligaments do not necessarily need to be sutured.

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Surgical treatment for stabilizing chronic AC joint dislocations using the LOQTEQ® AcroPlate 3.5 and the modified Weaver-Dunn procedure through osteoligament transfer of the coracoacromial ligament and fixation with cannulated screws.

Preoperative planning

- see Page 14

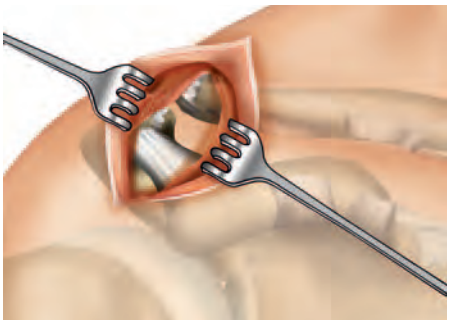
Patient positioning

- The patient is positioned in the beach chair position. Ensure the arm can be moved freely during the surgery.

Approach

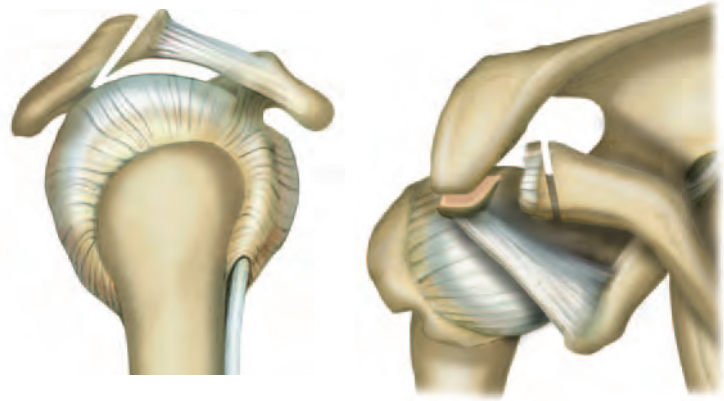
- Access is achieved by making a vertical skin incision (approx. 7 cm long) over the lateral clavicle (near the AC joint).
- Split the deltoid muscle in line with the fibers. (Do not detach the muscle at its origin!)

◆ NOTE:
Expose the coracoid ligament and anterior margin of the acromion, and attach the coracoacromial ligament using a suture loop. Then perform a longitudinal incision of the muscular fascia between the deltoid and trapezius, and retract away from the lateral clavicle (approx. 4-5 cm) to create space for placing the LOQTEQ® AcroPlate 3.5.

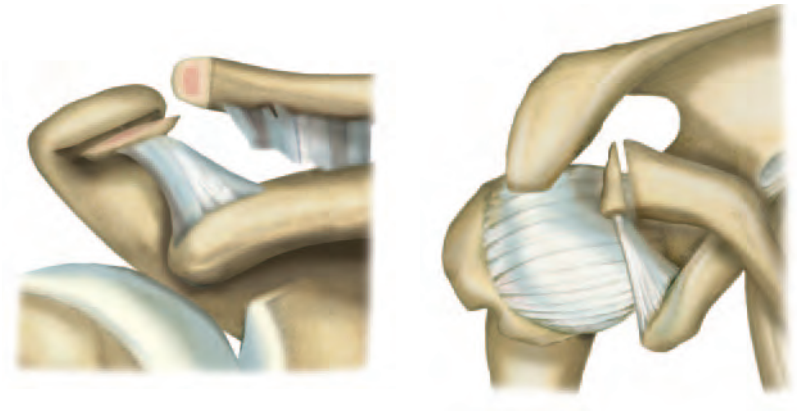


Osteotomy of the lateral clavicle and ligament transfer

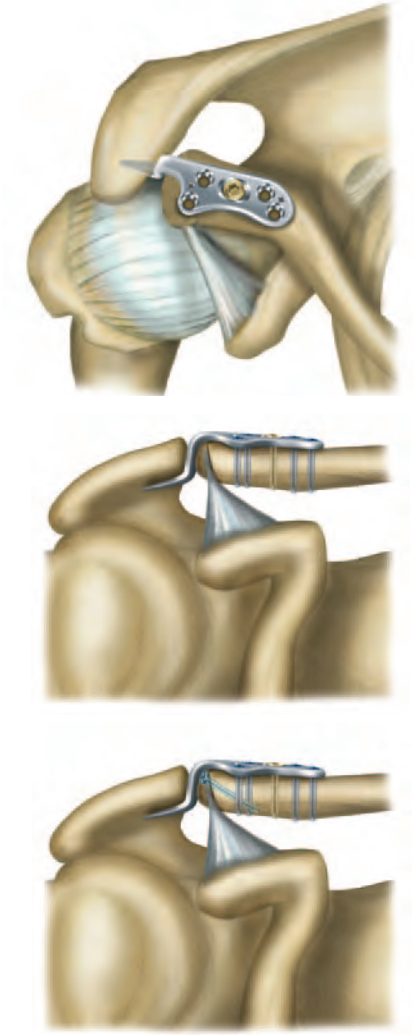
- Perform a wedge-shaped osteotomy at the anterior margin of the acromion with the coracoacromial ligament to harvest an oblique bone block approximately 1.2x1.2 cm in size.
- Perform an oblique osteotomy at the lateral clavicle approximately 2 to 5mm in a ventral direction. Match the angle with the angle of the acromial bone block.



- Attach the acromial bone block to the lateral clavicle (below the deltoid origin!).
- Reduction of the clavicle and insertion of the plate.



Reduction and primary fixation



- Use an elevatorium to remove the periosteum beneath the acromion, dorsal to the lateral clavicle.
- Reposition the clavicle, place the LOQTEQ® AcroPlate 3.5 with the hook dorsally to the AC joint, and align it on the lateral clavicle. Secure the plate to the bone.
- Follow the instructions on page 12 for the insertion of locking screws and page 10 for the insertion of non-locking screws ø3.5 mm.
- Precisely position the osseous attachment of the ligament.

◆ NOTE:
Ensure that the ligament creates sufficient tension between the coracoid process and the clavicle. If necessary, shift the wedge-shaped bony ligament origin parallel in a dorsal direction.

INSTRUMENTS	ART.-NO.
K-wire with trocar point, ø1.6, L 150	NK 0016-15

- Perform primary fixation of the fragment with one or two K-wires and fixation with a cannulated screw 2.7mm (optionally 3.5mm or second screw in case of large bone fragment). Optionally perform additional suture fixation at the dorsal part of the bone, with looping over the plate hook to secure it.

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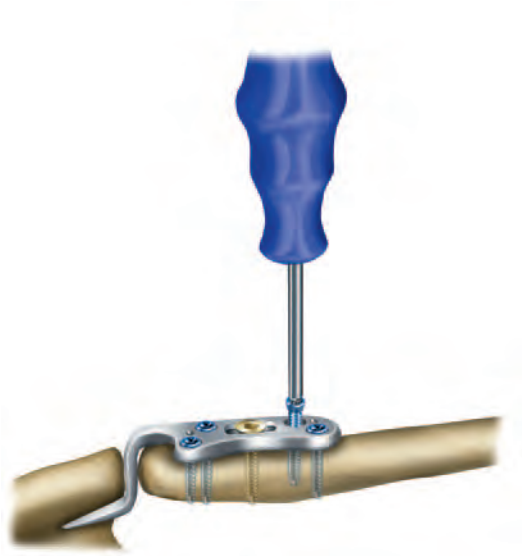
Explantation

INSTRUMENTS	ART.-NO.
Explantation screwdriver T8, round handle	IU 7811-08
Explantation screwdriver T15, round handle	IU 7811-15



◆ **Note:**

The T8 (IU 7815-56) and T15 (IU 7825-56) screwdriver in the set are self-retaining and should not be used for screw removal.

- Use the appropriate explantation screwdriver for safe removal of a screw. Explantation screwdrivers are not self-retaining, penetrate further into the screw head and thus permit a higher torque when removing screws. They are not included in the set as standard and must be ordered separately.

- Place an incision on the old scar. Manually undo all screws and sequentially remove them. After manually unlocking all screws, removal may be performed using a power tool.

◆ **Note AcroPlate:**

The LOQTEQ® AcroPlate should be removed after consolidation of the fracture and/or healing of the ligaments to avoid long-term impairment of shoulder function.
The decision on whether to remove the implant is made by the treating surgeon on the basis of an individual risk-benefit assessment for the patient.

LOQTEQ® Clavicle Shaft Plate 3.5

HOLES	LENGTH (mm)	LEFT	RIGHT
6	76	PK 3522-06-2	PK 3521-06-2
7	88	PK 3522-07-2	PK 3521-07-2
8	101	PK 3522-08-2	PK 3521-08-2
10	121	PK 3522-10-2	PK 3521-10-2

LOQTEQ® Superior Lateral Clavicle Plate 2.7/3.5

HOLES	LENGTH (mm)	LEFT	RIGHT
6/4	66	PK 3532-04-2	PK 3531-04-2
6/7	90	PK 3532-07-2	PK 3531-07-2

LOQTEQ® AcroPlate 3.5

HOLES	LENGTH (without/with hook mm)	LEFT	RIGHT
5	49 / 67	PK 3512-05-2	PK 3511-05-2
7	72 / 101	PK 3512-07-2	PK 3511-07-2

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Cortical Screw 2.5, small head T8, self-tapping

L 10	SK 2512-10-2
L 12	SK 2512-12-2
L 14	SK 2512-14-2
L 16	SK 2512-16-2
L 18	SK 2512-18-2
L 20	SK 2512-20-2
L 22	SK 2512-22-2
L 24	SK 2512-24-2
L 26	SK 2512-26-2
L 28	SK 2512-28-2
L 30	SK 2512-30-2
L 32	SK 2512-32-2
L 34	SK 2512-34-2
L 36	SK 2512-36-2
L 38	SK 2512-38-2
L 40	SK 2512-40-2
L 45	SK 2512-45-2
L 50	SK 2512-50-2
L 55	SK 2512-55-2
L 60	SK 2512-60-2
L 65	SK 2512-65-2
L 70	SK 2512-70-2

LOQTEQ® Cortical Screw 2.7, small head, T8, self-tapping

L 10	SK 2726-10-2
L 12	SK 2726-12-2
L 14	SK 2726-14-2
L 16	SK 2726-16-2
L 18	SK 2726-18-2
L 20	SK 2726-20-2
L 22	SK 2726-22-2
L 24	SK 2726-24-2
L 26	SK 2726-26-2
L 28	SK 2726-28-2
L 30	SK 2726-30-2
L 32	SK 2726-32-2
L 34	SK 2726-34-2
L 36	SK 2726-36-2
L 38	SK 2726-38-2
L 40	SK 2726-40-2
L 45	SK 2726-45-2
L 50	SK 2726-50-2
L 55	SK 2726-55-2
L 60	SK 2726-60-2
L 65	SK 2726-65-2
L 70	SK 2726-70-2

LOQTEQ® Cortical Screw 3.5, small head, T15, self-tapping

L 10	SK 3526-10-2
L 12	SK 3526-12-2
L 14	SK 3526-14-2
L 16	SK 3526-16-2
L 18	SK 3526-18-2
L 20	SK 3526-20-2
L 22	SK 3526-22-2
L 24	SK 3526-24-2
L 26	SK 3526-26-2
L 28	SK 3526-28-2
L 30	SK 3526-30-2
L 32	SK 3526-32-2
L 34	SK 3526-34-2
L 36	SK 3526-36-2
L 38	SK 3526-38-2
L 40	SK 3526-40-2
L 45	SK 3526-45-2
L 50	SK 3526-50-2
L 55	SK 3526-55-2
L 60	SK 3526-60-2
L 65	SK 3526-65-2
L 70	SK 3526-70-2
L 75	SK 3526-75-2
L 80	SK 3526-80-2
L 85	SK 3526-75-2
L 90	SK 3526-90-2

Cortical Screw 3.5, T15, self-tapping

L 10	SK 3514-10-2
L 12	SK 3514-12-2
L 14	SK 3514-14-2
L 16	SK 3514-16-2
L 18	SK 3514-18-2
L 20	SK 3514-20-2
L 22	SK 3514-22-2
L 24	SK 3514-24-2
L 26	SK 3514-26-2
L 28	SK 3514-28-2
L 30	SK 3514-30-2
L 32	SK 3514-32-2
L 34	SK 3514-34-2
L 36	SK 3514-36-2
L 38	SK 3514-38-2
L 40	SK 3514-40-2
L 45	SK 3514-45-2
L 50	SK 3514-50-2
L 55	SK 3514-55-2
L 60	SK 3514-60-2
L 65	SK 3514-65-2
L 70	SK 3514-70-2
L 75	SK 3514-75-2
L 80	SK 3514-80-2
L 85	SK 3514-85-2
L 90	SK 3514-90-2

Bending iron 1 for small fragment plates, closed	IP 8405-00
Bending iron 2 for small fragment plates, closed	IP 8405-50

Depth gauge for screws 2.7-3.5, up to L 50	IS 7903-10
Depth gauge for screws ø3.5-4.0, up to L 90mm	IS 7904-20

Elovarorium small, bended	IU 6010-00

Twist drill ø2.0, L 110, coil 25, quick coupling, single use	IU 7420-10-1U
Twist drill ø2.5, L 110, coil 50, quick coupling, single use	IU 7425-00-1U
Twist drill ø2.7, L 150, coil 50, quick coupling, single use	IU 7427-15-1U
Twist drill ø3.5, L 110, coil 50, quick coupling, single use	IU 7435-00-1U

Handle for quick coupling, medium, cannulated	IU 7705-00

Handle with quick coupling, with torque limiter 1.5 Nm	IU 7707-00

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Handle with quick coupling, with torque limiter 2.0Nm — IU 7707-20

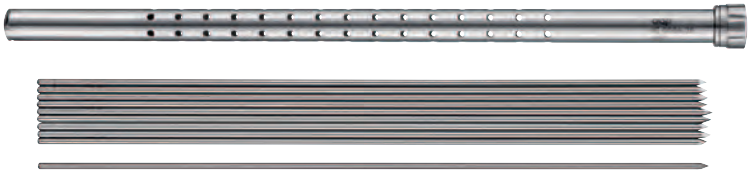
Screwdriver Duo, T8, quick coupling — IU 7815-56

Screwdriver Duo, T15, quick coupling — IU 7825-56

Double drill guide ø2.7/3.5, with spring aided centering — IU 8116-60

Drill guide for round hole LOQTEQ® 3.5, I-ø 2.8, blue — IU 8166-20

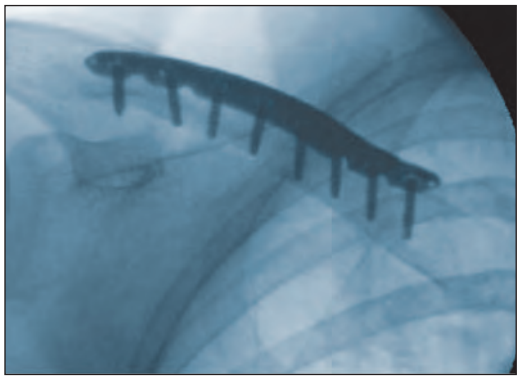
Drill guide LOQTEQ® 2.7 scale to L30, drill ø2.0 light blue — IU 8168-20

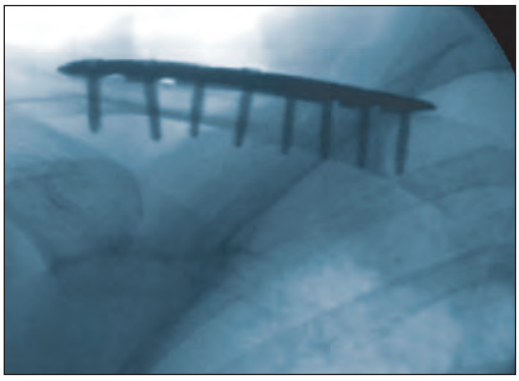


Caddy for K-wire L 200 — IC 0006-15
K-wire with trocar point, ø1.6, L 150 — NK 0016-15

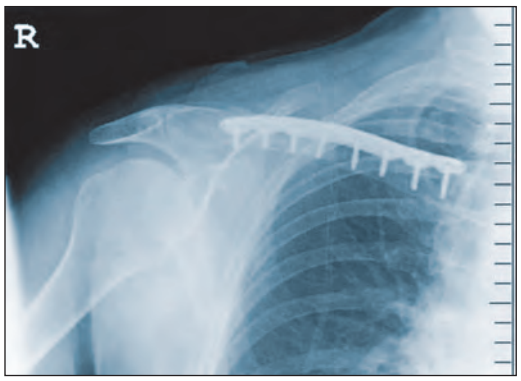
Preoperative

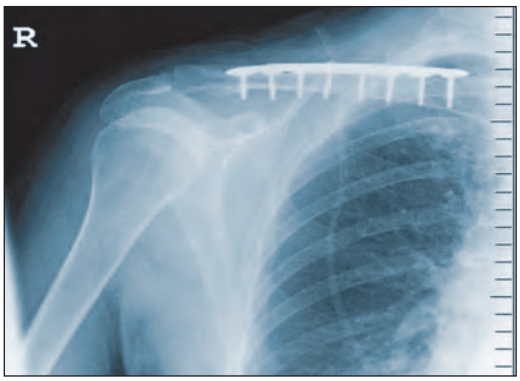
Intraoperative





Postoperative





Clinical case and CT images with the kind permission of Dr. Ulrich Leyer, AGAPLESION BETHESDA Hospital Wuppertal, Germany

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