Locking Proximal Humerus Plate.
For complex and unstable fractures.

Discontinued – December 2016
DSEM/TRM/1016/0761(1)
Features and Benefits

Anatomic design & low profile (2.2mm)
- No bending required
- Minimised soft tissue irritation
- Low risk of subacromial impingement
- A displaced fracture can be reduced using the plate

Suture holes
The fixation of additional wireloops or sutures attached to the tubercles (in 3- or 4-fragment fractures) neutralises the muscle tension and helps to maintain reduction.

Combination holes (LCP)
The choice of two fixation techniques in one implant: dynamic compression with standard screws, and/or angular stability with locking head screws, to satisfy various intra-operative requirements. A compression screw can be applied for indirect reduction.

Angular stability
- Avoids screw loosening as well as primary and secondary loss of reduction
- Enables early functional rehabilitation
- As an internal fixator, the plate maintains the vascularisation of the humeral head

Optimal placement of holes and angulation of screws
- High pullout strength and good anchorage in osteopenic bone and multifragmentary fractures
- Increased buttressing of the humeral head
Indications – Proximal Humerus

- Multifragmentary (dislocated) fractures requiring open reduction
- Unstable subcapital fractures
- Subcapital pseudarthrosis
- Osteotomies

Surgical steps¹

Preparation of implant

The Guiding Block for Locking Proximal Humerus Plate (312.925) provides for easy and accurate mounting of the Threaded LCP Drill Guide for 2.8mm Drill Bits (323.027) in the proximal part of the plate.

After pre-drilling and removal of the threaded LCP drill guide, screws can be inserted without removing the guiding block.
Surgical steps

Plate positioning

The Locking Proximal Humerus Plate is usually positioned 5mm caudal to the proximal end of the greater tuberosity and 10mm dorsal to the posterior border of the intertubercular sulcus.

Plate fixation

The application of the Locking Proximal Humerus Plate follows LCP principles. The Threaded LCP Drill Guide for 2.8mm Drill Bits (323.027) for axially correct pre-drilling, and the Torque-limiting Attachment (511.115) for accurate tightening of locking head screws, must be used.

Use of sutures

After temporary fixation of the reduction with threaded K-wires, sutures or wireloops can be attached to the tendons of M. supraspinatus and M. sub-scapularis in fractures with four fragments. The sutures are inserted through the suture holes in the proximal part of the plate, prior to plate positioning. After fixation of the plate, the sutures are knotted tightly to the plate.

For patient positioning and surgical approach see for example “AO Principles of Fracture Management”, R.P. Rüedi, W.M. Murphy, Thieme Verlag, 2000, pp. 270–289.
**Ordering information**

**Locking Proximal Humerus Plate**

<table>
<thead>
<tr>
<th>St. Steel</th>
<th>Titanium</th>
<th>Designation</th>
<th>Holes</th>
<th>Length</th>
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<td>441.188</td>
<td>Locking Proximal Humerus Plate</td>
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<td>121mm</td>
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All plates are available sterile packed.

**Screws**

The Locking Proximal Humerus Plate is used with small fragment standard and locking head screws, included in the LCP 3.5 Implant Set (172.210 st. steel, 172.211 titanium).

All screws are available sterile packed.

**Instruments**

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<tr>
<td>312.925</td>
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<tr>
<td>172.200</td>
<td>LCP 3.5 Instrument Set</td>
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