Small Fragment Locking Compression Plate (LCP) System. For fractures of small bones.

Versatile system

Combi hole for standard and locking screws

Broad range of standard and specialty plates
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The Synthes Small Fragment Locking Compression Plate (LCP) System provides implants and instruments for fixation of fractures, osteotomies and nonunions of the clavicle, scapula, olecranon, humerus, radius, ulna, pelvis, distal tibia and fibula, particularly in osteopenic bone.

The base instrument and implant set functions as a stand-alone set, but is also used in conjunction with many other plate sets. This brochure features a wide selection of these precontoured specialty plates.

**Note:** Please refer to individual technique guides for detailed indications of each plate.

**Implants included in the Small Fragment LCP Instrument and Implant Sets***

- 3.5 mm LCP Plates
- LCP One-Third Tubular Plates
- 3.5 mm LCP Reconstruction Plates (straight)
- 3.5 mm LCP T-Plates (right angle and oblique)
- 3.5 mm LCP Proximal Humerus Plates (3 and 5 holes)
- Cortex, shaft and cancellous bone screws
- Locking screws

* The 4.0 mm Cannulated Screw Set, which can be purchased separately, may be used with this system.
Locking compression plates (LCP)

- Combi holes allow fixation with locking screws in the threaded section, for angular stability, and cortex screws in the dynamic compression unit (DCU) section, for compression
- Locking screws do not rely on plate-to-bone compression to resist patient load, but function similarly to multiple, small, angled plates. These screws provide the ability to create a fixed-angle construct while utilizing familiar AO plating techniques
- A fixed-angle construct provides advantages in osteopenic bone and multifragment fractures, where traditional screw purchase is compromised
- Limited plate contact on the bone reduces impairment of the periosteal blood supply
- Implant materials include implant-quality 316L stainless steel, commercially pure (CP) titanium and titanium alloy (Ti-6Al-7Nb)
3.5 mm LCP Clavicle System

**Features**

- Precontoured superior and superior-anterior plates to fit the anatomy of the clavicle
- Left and right plates
- Available with 6, 7, or 8 Combi holes in the shaft
- Available with or without lateral extension; lateral extension features six distal locking holes
- Recon notches for easier 3-D contouring

- Tapered plate top
- Rounded plate profile
- Locking screwheads seat flush in the plate holes
- Superior anterior plates available in stainless steel and titanium alloy
- Superior plates available in stainless steel

3.5 mm LCP Clavicle Plate Systems
(01.112.022 and 01.112.024)

3.5 mm LCP Superior Clavicle Plates are shown with and without lateral extension
The 3.5 mm LCP Clavicle Hook Plate provides fixation for lateral clavicle fractures and for acromioclavicular joint injuries.

**Anatomically precontoured**
The plate facilitates optimal implant placement to provide an improved outcome.
- Rounded shaft profile minimizes the risk of soft tissue irritation between the plate and surrounding soft tissue, the acromioclavicular joint and the rotator cuff
- Undercuts in shaft reduce impairment of blood supply
- 12º bend in shaft eases implant placement
- Smooth hook design and posterior hook offset

**Intraoperative choice of hook size**
- 6 sizing templates help in selection of the proper hook size

**Optimized implant selection**
- Left and right plates
- 4, 5, 6 and 7 hole plates
- 3 hook depths: 12 mm, 15 mm and 18 mm
- Available in stainless steel and titanium

**3.5 mm LCP Clavicle Hook Templates and Graphic Case Set (01.112.010)**

* Plates are sterile packed
3.5 mm LCP Proximal Humerus Plate

**Features**

- Anatomically shaped plates
- Same plate for right or left humerus
- Proximal locking holes accept 3.5 mm locking screws to create a locked construct in the humeral head
- Distal holes accept 3.5 mm locking screws in the threaded portion, or 3.5 mm cortex screws, 4.0 mm cortex screws, and 4.0 mm cancellous bone screws in the compression portion
- Ten suture holes around the perimeter of the proximal end
- Distal shaft of standard plate consists of three or five locking compression holes, including one elongated hole to aid in plate positioning
- Distal shaft of long plates consists of five to twelve elongated locking compression holes, contains limited-contact undercuts, and is thicker for additional strength
- Available in stainless steel or titanium alloy

3.5 mm LCP Long Proximal Humerus Plate Implant Sets (01.109.602 and 01.109.604)
3.5 mm LCP Distal Humerus Plates

Features

- Choice of Thirty (30) posterolateral and medial plates allows implant placement to address the individual fracture pattern
- Plates are precontoured for anatomical fit
- Combi holes in the plate shaft offer the option of locking or nonlocking fixation at each hole
- Distal holes accept 2.7 mm locking screws and 2.4 mm cortex screws
- Choice of five lengths of each plate type eliminates the need to cut plates
- Posterolateral plates offer fixation of the capitulum with three distal screws
- Available in stainless steel and titanium

Two-plate technique for distal humerus fractures

Increased stability can be gained from two-plate fixation of distal humerus fractures. The two-plate construct creates a girder-like structure which strengthens the fixation. The posterolateral plate functions as a tension band during elbow flexion, and the medial plate supports the medial side of the distal humerus.

3.5 mm LCP posterolateral distal humerus plates, with support
3.5 mm LCP posterolateral distal humerus plates
3.5 mm LCP medial distal humerus plates

3.5 mm LCP Elbow System (01.104.000)
3.5 mm LCP Extra-articular Distal Humerus Plate

**Features**
- Left and right plates are anatomically contoured to match the posterolateral distal humerus
- Plate head is tapered to minimize soft tissue irritation
- Five locking holes in plate head are angled medially to maximize screw purchase in the bone
- Two most distal holes are angled toward the capitulum and trochlea
- Available with 4, 6, 8, 10, 12 or 14 elongated Combi holes in the plate shaft, to allow greater adjustment of plate placement on the humerus
- Available in stainless steel or titanium

3.5 mm LCP Extra-articular Distal Humerus Plate Sets (01.104.010 and 01.104.020)
**3.5 mm LCP Hook Plate**

**Features**
- Low-profile construct with minimal hardware prominence
- Sharp hooks provide additional points of fixation and facilitate plate placement
- Shaped to provide spring-effect, to aid in reduction
- A single 3-hole plate can be used in multiple locations, applied to either the right or left side of the anatomy, resulting in less inventory required
- Nonlocking hole between the hooks allows fracture compression with a lag screw
- One elongated nonlocking hole and two elongated Combi holes in the shaft facilitate plate placement and fracture compression
- Available in stainless steel or titanium

The 3.5 mm LCP Hook Plates are found in the following sets:
- 01.104.015 3.5 mm LCP Olecranon Plate Set
- 01.104.016 3.5 mm Titanium LCP Olecranon Plate Set
- 01.104.000 3.5 mm LCP Elbow System Set
- 01.104.004 3.5 mm Titanium LCP Elbow System Set
**3.5 mm LCP Olecranon Plates**

**Features**
- Anatomically precontoured
- Left and right plates
- Head holes accept 3.5 mm locking screws, and 2.7 mm and 3.5 mm cortex screws
- Shaft holes accept 3.5 mm locking screws and 3.5 mm cortex screws
- Choice of six lengths with 2, 4, 6, 8, 10 or 12 Combi holes in the shaft
- Guide block facilitates correct insertion of proximal screws
- Available in stainless steel or titanium

*3.5 mm LCP Olecranon Plate Sets (01.104.015 and 01.104.016)*
**Features**

- Precontoured plate offers an anatomic fit in the distal radius and radial shaft
- All plates are straight up to 5 holes. Beyond the fifth hole the shaft is precontoured to match the radial bow
- Relief notches after the seventh hole facilitate additional contouring
- Elongated Combi holes in the plate shaft accept 3.5 mm locking screws or 3.5 mm cortex screws and 4.0 mm cancellous bone screws
- 4-hole head configuration is similar to the 2.4 mm LCP extra-articular volar distal radius plate
- Distal 2.4 mm locking screws offer a fixed-angle construct to support the articular surface
- Smooth surface finishing and rounded edges minimize tendon irritation and adhesion
- Available in left or right designs, with 5, 7, 9, 11, 13, or 15 hole shaft lengths
- Available in stainless steel or titanium
The LCP Wrist Fusion System consists of plates, locking screws and cortex screws. Implants are available in stainless steel or titanium.

**Features**
- Standard bend plates for average-sized individuals
- Short bend plates for small-stature individuals or patients with previous proximal row carpectomy
- Straight plate for patients with unusual anatomy or a severely deformed wrist joint
- Precontoured plates reduce the need for intraoperative bending
- Low-profile plates minimize plate prominence
- Limited-contact design minimizes periosteal contact
- Fusion angle of 10° dorsiflexion provides optimum hand position
- Plates accept 2.7 mm locking and cortex screws distally and 3.5 mm locking and cortex screws proximally
- Plate geometry is identical to the LC-DCP wrist fusion plates, except for overall length
- Combi hole dorsal to the capitate allows lagging or locking the capitate to the plate

**LCP Wrist Fusion Instrument and Implant Set (01.110.051) consists of:**
01.110.050 LCP Wrist Fusion Instrument Set
01.110.052 LCP Wrist Fusion Implant Module Set

**LCP Wrist Fusion Instrument and Titanium Implant Set (01.110.061) consists of:**
01.110.050 LCP Wrist Fusion Instrument Set
01.110.062 LCP Wrist Fusion Titanium Implant Module Set
3.5 mm LCP Proximal Tibia Plates

Features
Available in left and right plates, in stainless steel or titanium.

Plate head
- Anatomically contoured to match the lateral proximal tibia
- Four convergent threaded screw holes accept 3.5 mm locking screws
- Three 2.0 mm holes for preliminary fixation with K-wires, or meniscal repair with sutures

Plate shaft
- Available with 4, 6, 8, 10, 12, 14, or 16 screw holes
- The three locking holes distal to the plate head accept 3.5 mm locking screws to secure plate position. The hole angles allow the locking screws to converge with three of the four locking screws in the plate head to support medial fragments
- Combi holes distal to the three angled locking holes accept 3.5 mm locking screws in the threaded portion of the hole and 3.5 mm cortex screws or 3.5 mm shaft screws in the DCU portion of the hole

3.5 mm LCP Proximal Tibia Plate Implant Sets (105.242 and 145.242)
3.5 mm LCP Medial Proximal Tibia Plates

**Features**
Available in left and right plates, in stainless steel or titanium.

**Plate head**
- Anatomically contoured to approximate the anteromedial proximal tibia
- Three convergent threaded screw holes accept 3.5 mm locking screws or 3.5 mm conical screws
- Two 2.0 mm holes for preliminary fixation with K-wires, or meniscal repair with sutures

**Plate shaft**
- The two angled locking holes distal to the plate head accept 3.5 mm locking screws or 3.5 mm conical screws, to secure the plate position. The hole angles allow the locking screws to converge with two of the three screws in the plate head
- Combi holes distal to the angled locking holes accept 3.5 mm locking screws or 3.5 mm conical screws in the threaded portion of the hole and 3.5 mm cortex screws or 3.5 mm shaft screws in the DCU portion of the hole
- Available with 4, 6, 8, 10, 12, 14, 16, 18, or 20 Combi holes in the plate shaft
- Limited-contact profile

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3.5 mm LCP Medial Proximal Tibia Plate Set (01.112.050)
3.5 mm LCP Distal Tibia T-Plates

**Features**
- Anatomically shaped
- 4.5 mm narrow shaft width
- Four locking rafting screws in distal portion
- Head holes accept 2.7 mm and 3.5 mm cortex screws and 3.5 mm locking screws
- Shaft holes accept 3.5 mm locking, 3.5 mm cortex and 4.0 mm cancellous bone screws
- Available in stainless steel

**Long plates**
- Two elongated holes for positioning
- 3.6 mm shaft thickness tapers to 2.4 mm distally
- Two locking strut screws (38 mm maximum length)
- Available with 8, 12 or 16 shaft holes

**Short plates**
- One elongated hole for positioning
- 1.5 mm thickness
- One locking strut screw (38 mm maximum length)
- Available with 3 or 5 shaft holes

3.5 mm LCP Distal Tibia T-Plate Implant Set (01.112.050)
3.5 mm LCP Medial Distal Tibia Plates

**Features**
- Anatomically contoured; plate is twisted 20° and bent to fit the distal tibia
- Available for left and right tibias
- Limited-contact shaft design with 4 to 14 combination locking/compression holes
- Eight distal locking holes accept 2.7 mm cortex, 3.5 mm locking, 3.5 mm cortex, or 4.0 mm cancellous bone screws
- Proximal and distal holes for 1.6 mm or 2.0 mm Kirschner wires
- Locking holes in distal region are parallel to the joint
- Elongated hole in shaft aids in initial plate positioning
- The shaft holes accept 3.5 mm locking screws in the threaded portion and 3.5 mm cortex screws, 4.0 mm cortex screws and 4.0 mm cancellous bone screws in the compression portion
- Distal tab for optional medial malleolus screw accepts 3.5 mm locking, 2.7 mm cortex, 3.5 mm cortex, 4.0 mm cortex or 4.0 mm cancellous bone screws
- Available in stainless steel

**Distal screw profile in round locking holes**

3.5 mm locking

3.5 mm cortex

2.7 mm cortex

4.0 mm cancellous

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3.5 mm LCP Medial Distal Tibia Plate Instrument and Implant Set (115.358)
3.5 mm LCP Medial Distal Tibia Plates, without tab and 3.5 mm LCP Low Bend Medial Distal Tibia Plates

**Features**

- Low-profile plate head for minimal prominence on medial malleolus
- Round locking holes in the head of the plate accept 2.7 mm and 3.5 mm cortex, 3.5 mm locking, and 4.0 mm cancellous bone screws
- Three distal locking screws diverge across subchondral bone and are parallel to the joint
- 3.5 mm cortex and 4.0 mm cancellous bone screws sit flush with plate in the nonlocking portion of distal Combi holes
- Distal K-wire hole for plate placement (2.0 mm maximum diameter)
- Four to fourteen Combi holes in the shaft
- Combi holes in the head and shaft accept 3.5 mm cortex screws, 3.5 mm locking screws and 4.0 mm cancellous bone screws
- Rounded edges to minimize soft tissue irritation
- Available in stainless steel or titanium
- 3.5 mm LCP Medial Distal Tibia Plate, without tab, includes an articulated tension device (ATD) hole for compression or distraction
3.5 mm LCP Anterolateral Distal Tibia Plates

Features
- Anatomically shaped
- 60° twist in shaft is contoured for the distal tibia anatomy
- 3.6 mm shaft thickness tapers to 2.0 mm distally
- Combi holes in the plate shaft accept 3.5 mm locking screws, 3.5 mm cortex screws and 4.0 mm cancellous bone screws
- Targeted locking for Volkmann’s triangle and the Chaput fragment
- Head holes accept 3.5 mm locking screws, 2.7 mm and 3.5 mm cortex screws and 4.0 mm cancellous bone screws to provide support for the articular surface
- The head of the plate is designed to provide a low-profile construct when using locking screws or 2.7 mm cortex screws
- Tapered tip for submuscular insertion
- Available in stainless steel or titanium alloy

3.5 mm LCP Anterolateral Distal Tibia Plate Implant Sets (01.124.001 and 01.124.002)
**3.5 mm LCP Pilon Plates**

**Features**
- Can be cut and contoured for anatomic fit on left or right distal tibia
- May be placed on the anterior, medial, anteromedial, or anterolateral distal tibia
- Combi holes in the plate shaft accept 3.5 mm locking screws in the threaded portion, and 3.5 mm cortex or 4.0 mm locking screws in the DCU portion
- Round holes in the distal portion of the plate accept 3.5 mm locking, 2.7 mm cortex, 3.5 mm cortex or 4.0 mm cancellous bone screws
- The distal portion and arms may be contoured or holes may be removed as necessary
- Available in stainless steel

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<th>Holes</th>
<th>Length (mm)</th>
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<td>240.082</td>
<td>7</td>
<td>147</td>
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<tr>
<td>240.083</td>
<td>9</td>
<td>173</td>
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**Screw profiles in plate arms**

- 2.7 mm cortex screw
- 3.5 mm cortex screw
- 3.5 mm locking screw
Features
- Anatomically shaped
- Distal holes accept 2.4 mm and 2.7 mm locking and cortex screws to provide multiple screw options
- Combi holes in the plate shaft accept 3.5 mm locking screws, 3.5 mm cortex screws, and 4.0 mm cancellous bone screws
- Recesses for screwheads minimize screw prominence to create a low-profile construct
- Four K-wire holes in the lateral plate head accept 2.0 mm K-wires
- Available in stainless steel

2.7 mm/3.5 mm LCP Distal Fibula Plate Instrument and Implant Set (01.112.077)

Screw profiles

2.7 mm locking screw
2.7 mm cortex screw
Locking Calcaneal Plate Instrument and Implant Sets

**Plate features**
- Available in mini, short, long and extra long, in left and right designs
- Versatile—15 locking holes address multiple fracture patterns
- Bendable tabs provide support for the anterior process and plantar fragments
- Angled and ascending holes buttress the sustentaculum and provide better support of the calcaneotalar articular surface
- Lateral application
- Locking screws provide standard bicortical and/or unicortical fixation
- Available in stainless steel

**Threaded locking holes**
- Offer a fixed-angle construct to buttress the articular surfaces of the calcaneus
- Permit multiple points of fixation to buttress small fragments
- Accept standard 2.7 mm and 3.5 mm cortex screws as alternatives to, or in conjunction with, 3.5 mm locking screws
- Provide 15° of angulation when using 2.7 mm cortex screws and 5° of angulation when using 3.5 mm cortex screws
Orthopaedic Small Fragment Implants: Know Your Options.
Anatomical locations for the locking compression plates (LCP).

1. 3.5 mm LCP Superior Anterior Clavicle Plate (Page 4)
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   - 3.5 mm LCP Reconstruction Plate (Page 2)
   - 3.5 mm LCP Plate (Page 2)
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   - 3.5 mm LCP Metaphyseal Plate

3. 3.5 mm LCP Plate (Page 2)

4. 3.5 mm LCP Plate (Page 2)
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11. 3.5 mm LCP Medial Proximal Tibia Plate (Page 14)

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13. 3.5 mm LCP Hook Plate (Page 9)

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3.5 mm LCP Medial Distal Tibia Plate

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