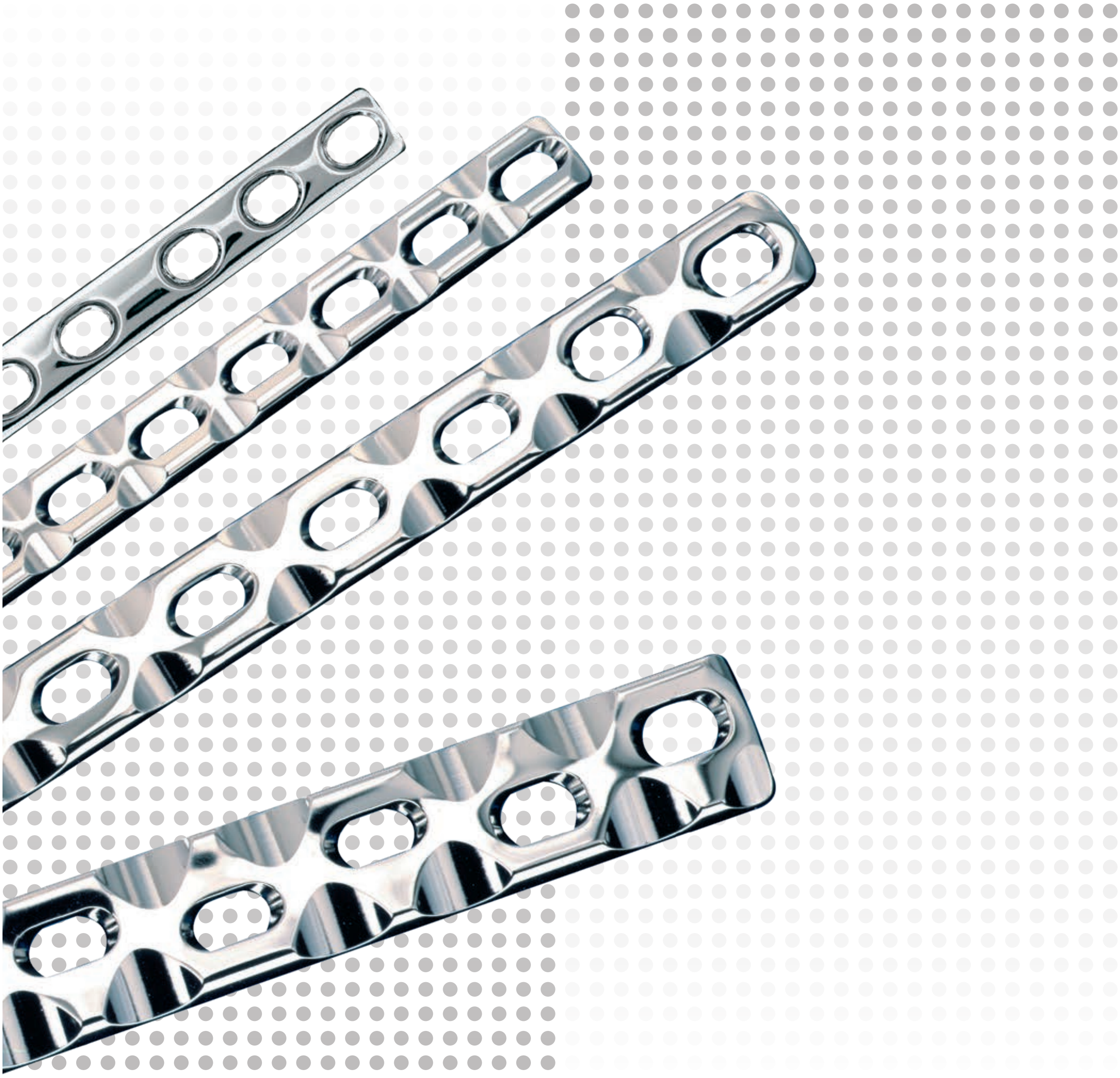
DCP AND LC-DCP SYSTEMS

Dynamic Compression Plates (DCP) and Dynamic Compression Plates with Limited Bone Contact (LC-DCP)

Surgical Technique



AO approved by AO Technical Commission

DePuy Synthes
THE ORTHOPAEDICS COMPANY OF Johnson & Johnson

Image intensifier control

This description alone does not provide sufficient background for direct use of DePuy Synthes products. Instruction by a surgeon experienced in handling these products is highly recommended.

Processing, Reprocessing, Care and Maintenance
For general guidelines, function control and dismantling of multi-part instruments, as well as processing guidelines for implants, please contact your local sales representative or refer to:
http://emea.depuysynthes.com/hcp/reprocessing-care-maintenance
For general information about reprocessing, care and maintenance of DePuy Synthes reusable devices, instrument trays and cases, as well as processing of DePuy Synthes non-sterile implants, please consult the Important Information leaflet (SE_023827) or refer to:
http://emea.depuysynthes.com/hcp/reprocessing-care-maintenance

Table of Contents

■ Notes
▲ Precautions
▲ WARNINGS

DCP and LC-DCP Systems

Dynamic Compression Plates (DCP) and Dynamic Compression Plates with Limited Bone Contact (LC-DCP)

Dynamic Compression Plates are available in dimensions ranging from 1.3 to 4.5 mm, Limited Contact Dynamic Compression Plates range from 2.0 to 4.5 mm.

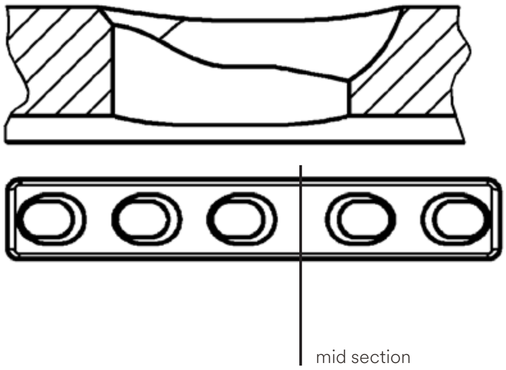
Intended Use, Indication and Contraindication can be found in the corresponding Instruction For Use.

Plate hole geometries

Non-symmetrical holes

Some Dynamic Compression Plates have non-symmetrical holes. These plates have a mid section which is placed at the position of fragments to be compressed.

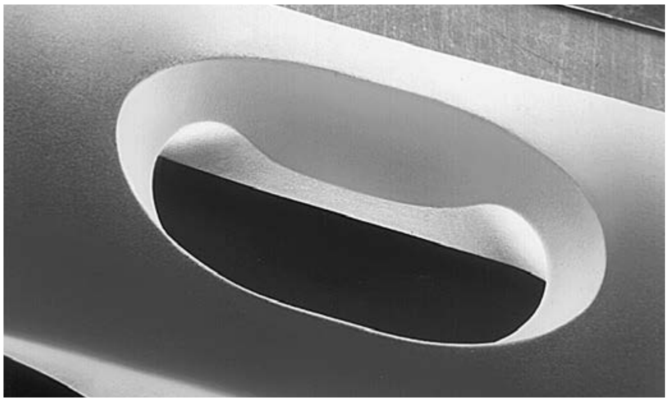
The non-symmetrical DCP holes are shaped like a portion of an inclined and angled cylinder. They possess one compression point at the inclined side and one neutral point in the middle.



Symmetrical holes

Most 1.3 to 3.5 mm Dynamic Compression Plates have symmetrical holes similar to the LC-DCP hole. The symmetrical shape of the plate holes enables compression to be achieved in both directions, thus plate positioning is not restricted by the presence of a mid-section.

Symmetrically shaped DCP holes possess one compression and one neutral point on both sides. With some small and mini plates, the neutral points meet in the middle.



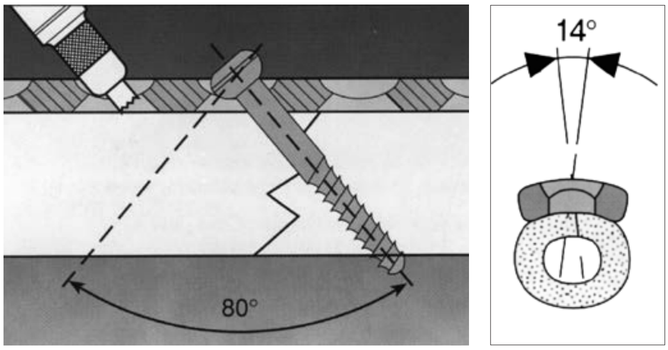
Screw angulations

Non-symmetrical holes

The DCP allows up to 25° longitudinal and 7° transverse screw angulation.

Symmetrical holes

The DCP hole allows up to 50° longitudinal screw angulation. LC-DCP holes allow wider angulations up to 80°. Both plate types allow for 14° transverse screw angulation.



Symmetrical LC-DCP hole

Undercuts

Undercuts of the LC-DCP limit contact between plate and bone.

Stiffness (LC-DCP only)

The stiffness of the LC-DCP allows contouring of the plate to the bone.

LC-DCP

Standard

The AO Principles of Fracture Management

Mission

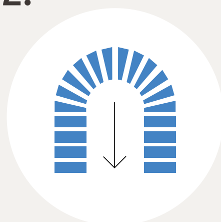
The AO's mission is promoting excellence in patient care and outcomes in trauma and musculoskeletal disorders.

AO Principles[1,2]

1.

Fracture reduction and fixation to restore anatomical relationships.

2.



Fracture fixation providing absolute or relative stability, as required by the "personality" of the fracture, the patient, and the injury.

3.

Preservation of the blood supply to soft-tissues and bone by gentle reduction techniques and careful handling.

4.

Early and safe mobilization and rehabilitation of the injured part and the patient as a whole.

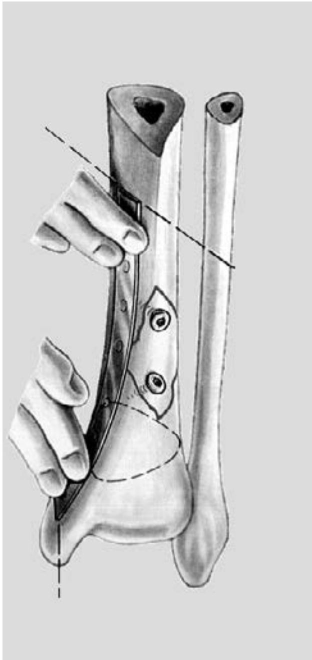
[1] Müller ME, M Allgöwer, R Schneider, H Willenegger. Manual of Internal Fixation. 3rd ed. Berlin, Heidelberg, New York: Springer. 1991
[2] Buckley RE, Moran CG, Apivatthakakul T. AO Principles of Fracture Management: 3rd ed. Vol. 1: Principles, Vol. 2: Specific fractures. Thieme; 2017.

Preparation

1. Plate contouring

The plates should not be bent beyond the necessary extent.

Use bending pliers or bending irons for plate contouring.

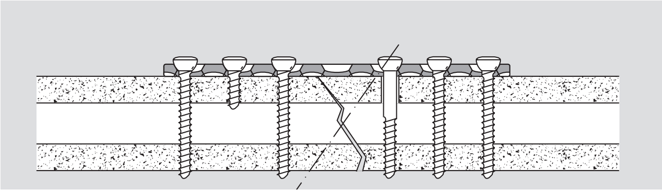


▲ Precautions:

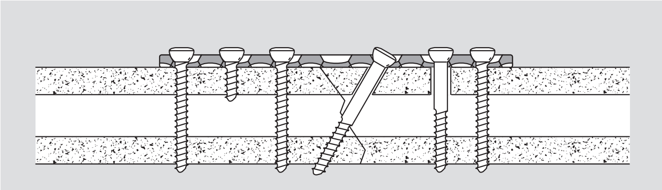
- Avoid repeated bending.
- Sharp indentations on the plate surface, especially around the plate holes, may impair resistance to fatigue and should be avoided.
- Reverse bending or use of the incorrect instrumentation for bending may weaken the plate and lead to premature plate failure (e.g. breakage). Do not bend the plate beyond what is required to match the anatomy.
- Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin.
- Handle devices with care and dispose worn bone cutting instruments in an approved sharps container.

2. Use of lag screws

Construct without lag screw



Using a lag screw



Drill Guides for DCP and LC-DCP

Different drill guide types are available to perform drilling for DCP and LC-DCP fixation in both neutral and compression mode.

1. Standard drill guides (DCP, sizes 1.3–4.5)

Standard drill guides feature a simple tube to protect soft tissues while drilling. Depending on the positioning of the tube within the hole, neutral or eccentric (compression) drilling can be performed.

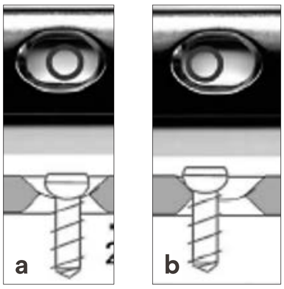
Example

a Drilling in neutral position

Position the tube in the middle of the DCP hole.

b Drilling in eccentric position – compression

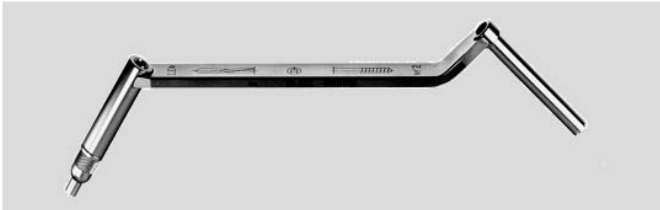
Position the tube in plate hole remote from the fracture.

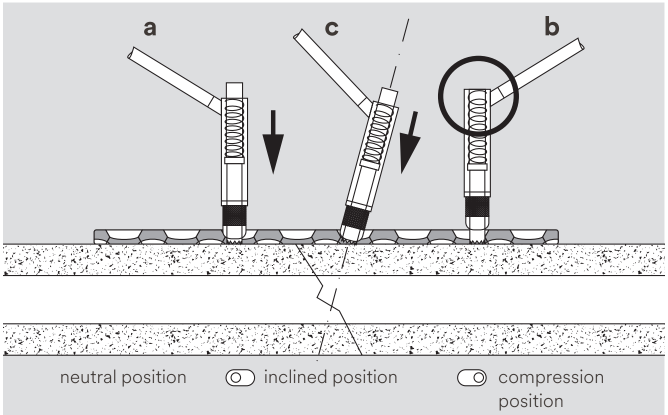


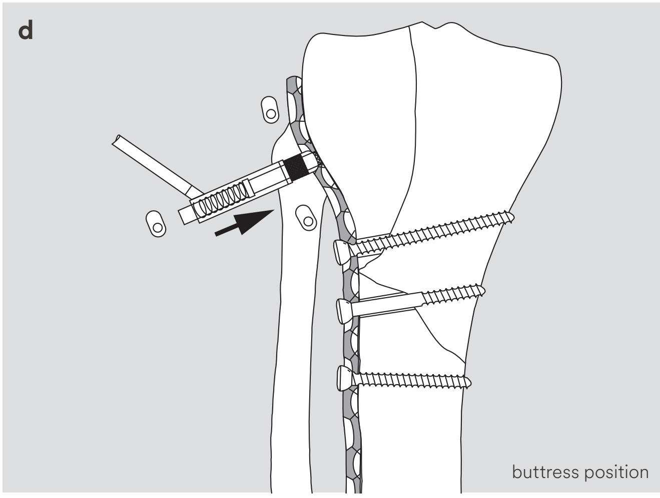
Neutral and eccentric drilling

2. Universal drill guides (DCP and LC-DCP, sizes 1.5–4.5)

Universal drill guides feature one end with a spring-loaded mechanism which facilitates all types of applications: Neutral position, compression position, buttress position (LC-DCP only) and especially the positioning of inclined lag screws through the plate.







a Neutral position

Depress the drill guide. The upper part of the inner sleeve projects. Position the drill guide in the plate hole which is remote from the fracture (LC-DCP). When used with DC plates the drill guide automatically slides into the correct middle position when depressed.

b Compression position

Do not depress the drill guide. The upper part is flush. Position the drill guide in the plate hole remote from the fracture.

c Inclined position

This technique is used for inserting lag screws through the plate. Place the drill guide in the hole adjacent to the fracture, depress (upper part projects), and set the desired drill angle.

d Buttress position (LC-DCP only)

Depress the drill guide as shown for neutral position (upper part projects). Position the drill guide in the plate hole adjacent to the fracture.

3. LC-DCP drill guides (3.5 and 4.5 LC-DC plates)

The LC-DCP drill guides can be used with LC-DC plates only. They feature dedicated ends for neutral application (green) and for application in compression mode (yellow).

LC-DCP drill guides carry an arrow enabling correct positioning of the screw.

a Neutral position

Use the green drill guide to place a screw in neutral position. The arrow on the green drill guide must point towards the fracture. Compression cannot be achieved with the green drill guide.

b Compression

Use the yellow drill guide to achieve compression. The arrow on the yellow drill guide must point towards the fracture.

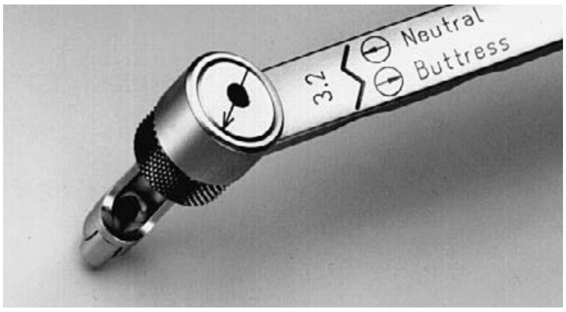
c Buttress position

Use the green drill guide. A buttress effect is achieved when the arrow points away from the fracture.

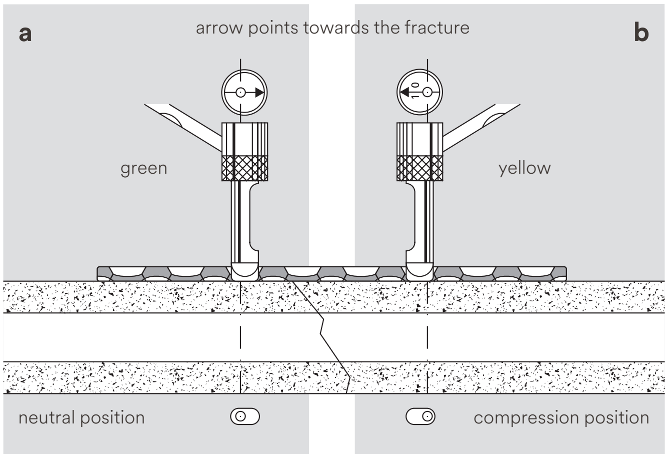
Pre-drilling in inclined position with LC-DCP drill guides is not recommended because correct positioning of the screw cannot be ensured. LC-DCP drill guides are designed to only fit the hole in a more or less vertical position. For pre-drilling in inclined position use the universal drill guide instead (refer to 2c).

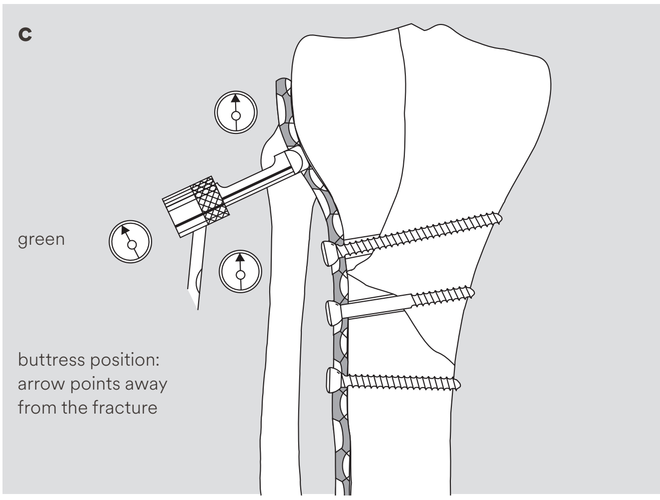
Implant Removal

In case the physician decides to remove the implants, they can be removed by using general surgical instruments.



= symbol for a fracture line





Compression Plate: Simple Fracture

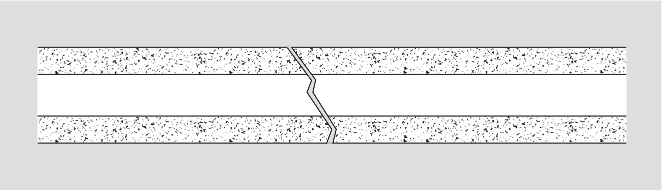
■ **Note:**
Required drill bits for threaded and gliding holes and taps for the individual screw sizes can be found in the chapter "Screws, Drills and Taps".

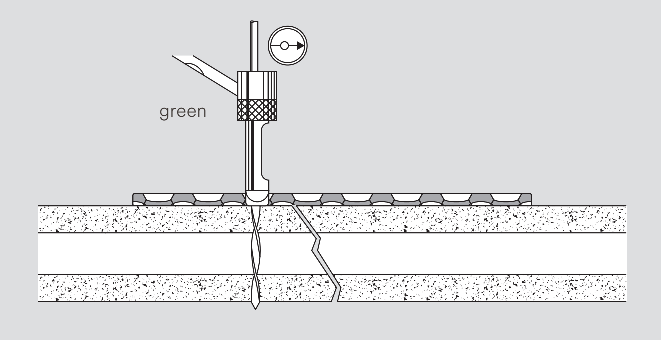
Choose a plate of the appropriate length. Ensure that there are enough plate holes over both fragments and that a lag screw can be inserted if necessary.

Illustrations show the procedure with the neutral and compression drill guide of the LC-DCP drill guide using a 3.5 and 4.5 LC-DC plate.

1. Drill first hole adjacent to fracture

Use an appropriately sized drill bit for threaded holes and drill the first hole adjacent to the fracture. Use the green drill guide in neutral position with the arrow pointing towards the fracture. Alternatively, use the universal drill guide in depressed mode (upper part projects) and place it in the hole remote from the fracture.





Determine screw length, tap the thread, and insert the screw.

Whenever possible, the screws for axial compression should be placed in such a way that the apex of the fragment is drawn into the open wedge between plate and bone.

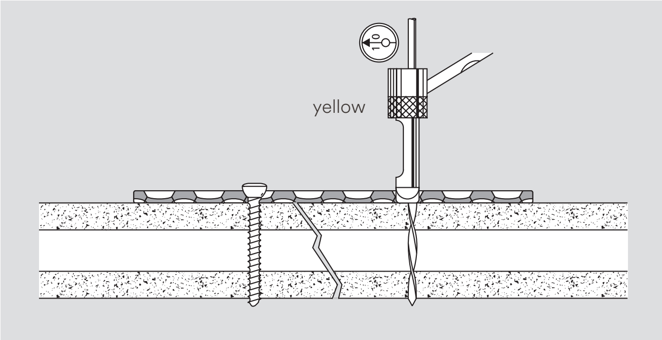
Alternative

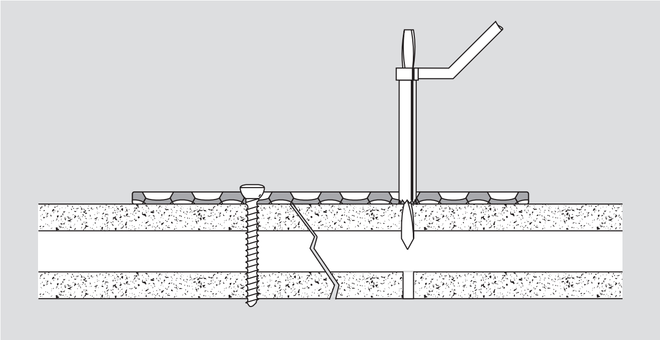
When using a shaft screw with an unthreaded portion below the head, overdrill the near cortex using a tissue protecting sleeve or standard drill guide and an appropriately sized drill bit for gliding holes.

2. Drill second hole

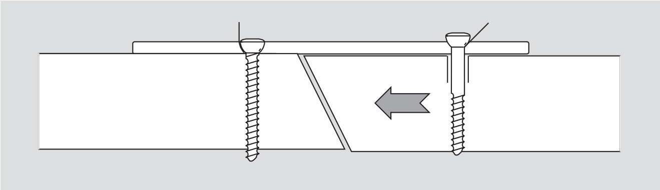
Drill through both cortices into the opposite fragment with the yellow drill guide in compression position (arrow points towards the fracture). Alternatively, use the universal drill guide placing it in the hole remote from the fracture. Do not depress it (upper part stands flush).

Determine screw length, tap the thread, and insert the screw.





Whenever possible, the screws for axial compression should be placed in such a way that the apex of the fragment is drawn into the open wedge between plate and bone.

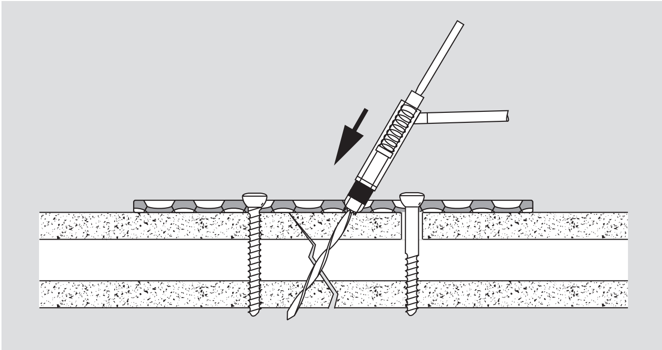


Alternative

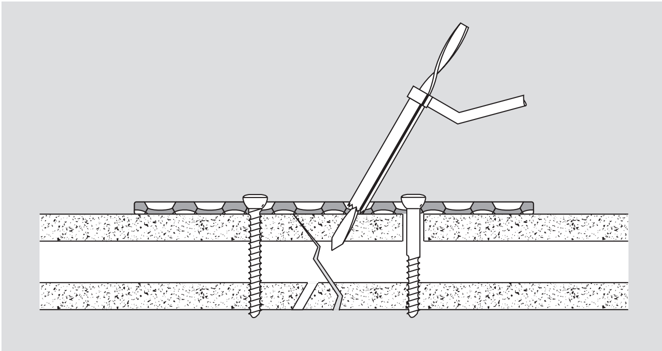
When using a shaft screw with an unthreaded portion be-low the head, overdrill the near cortex using a tissue pro-tecting sleeve or standard drill guide and an appropriately sized drill bit for gliding holes.

3. Insert interfragmentary lag screw

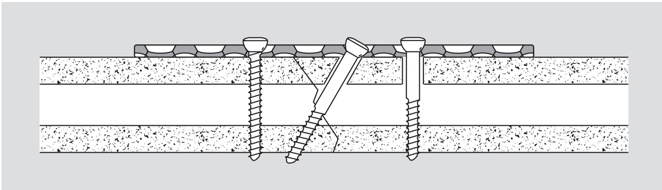
Drill through both cortices with an universal drill guide in depressed mode (inner sleeve projects) and an appropriately sized drill bit for threaded holes. The hemispheric underside of the universal drill guide permits ideal positioning of the screw head.



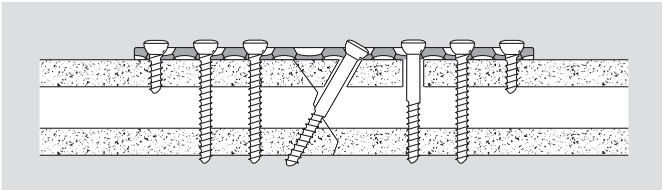
Widen the hole in the near cortex with a drill bit for gliding holes. Push the tissue protecting sleeve upwards, insert the drill bit into the hole, then slide the tissue protecting sleeve down until it touches the plate. When drilling, care should be taken that the course of the gliding hole follows exactly that of the previous drill hole.



As an alternative to a regular cortex screw a shaft screw, used as a lag screw, may be inserted. This ensures gliding of the screw shaft in the gliding hole resulting in a high tension effect.



In the remaining screw holes insert screws in neutral position apart from the hole directly above the fracture.



Implant Removal

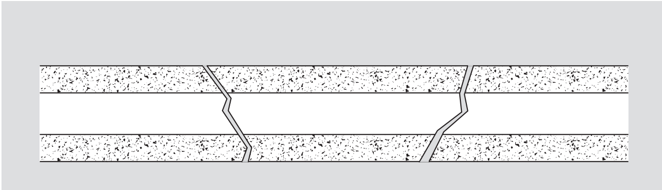
In case the physician decides to remove the implants, they can be removed by using general surgical instruments.

Compression Plate: Multifragmentary Fracture

■ **Note:**

Required drill bits for threaded and gliding holes and taps for the individual screw sizes can be found in the chapter "Screws, Drills and Taps".

Fractures should be treated consecutively.

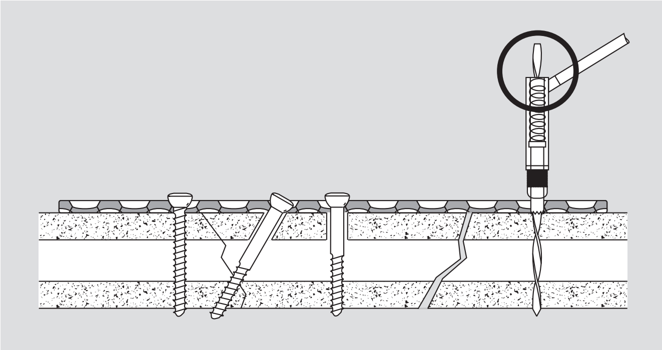


1. Treat first fracture

For treatment of the first fracture, follow the previously described example step by step.

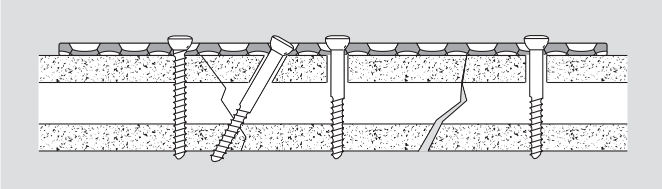
2. Treat second fracture

Treat the second fracture using the universal drill guide. Drill a hole into the third fragment using the universal drill guide in compression position and a drill bit for threaded holes. Seat the drill guide at the side of the hole remote from the fracture without depressing the drill guide (upper part is flush).

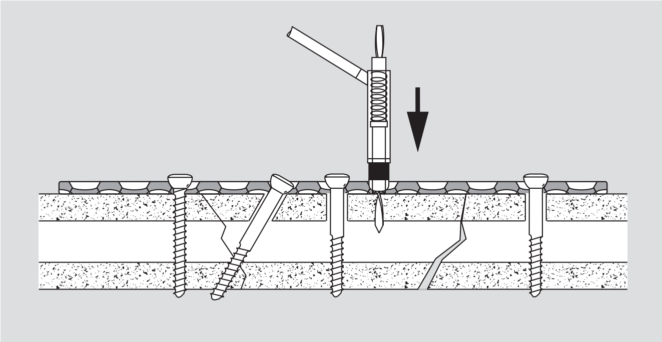


Drill a gliding hole, measure screw length and tap the thread.

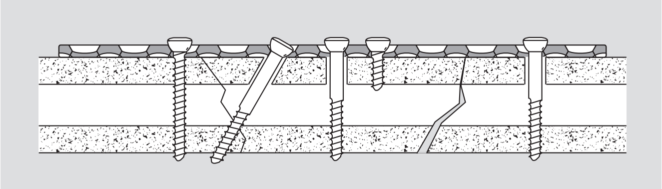
Insert a screw into the hole. The use of a shaft screw is recommended.



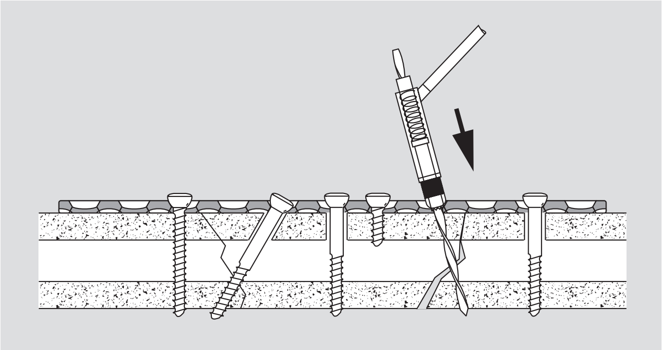
Next insert a screw into the middle fragment. Prepare the screw hole with a drill bit for threaded holes and the universal drill guide depressed for neutral position (upper part of inner sleeve projecting).



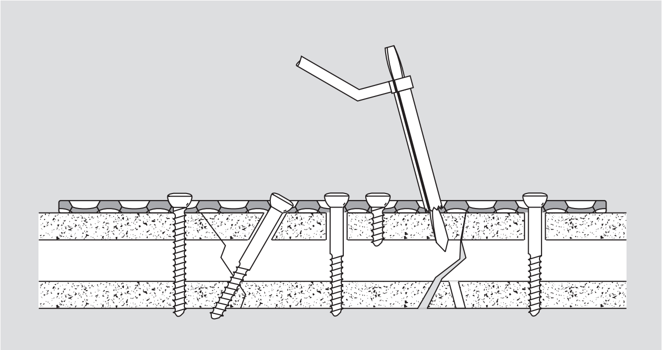
Place the screw.



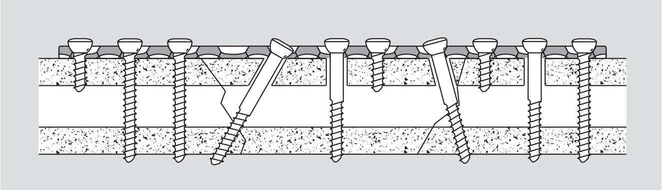
Prepare seating for the lag screw with the universal drill guide and a drill bit for threaded screws. Position the universal drill guide adjacent to the fracture, depress the drill guide (inner sleeve projects), set drilling angle and drill. If there is the risk of the drill bit colliding with the screw in the vicinity, the drill bit has to be inclined.



Drill the gliding hole. Widen the near cortex using an appropriately sized drill bit for gliding holes and the tissue protecting sleeve. Measure the screw length and tap the thread.



By inserting a shaft screw as lag screw, additional stability is achieved. Tighten lag and compression screws alternately.
The remaining screw holes are filled with neutrally placed screws.



Implant Removal

In case the physician decides to remove the implants, they can be removed by using general surgical instruments.

Buttress Plate

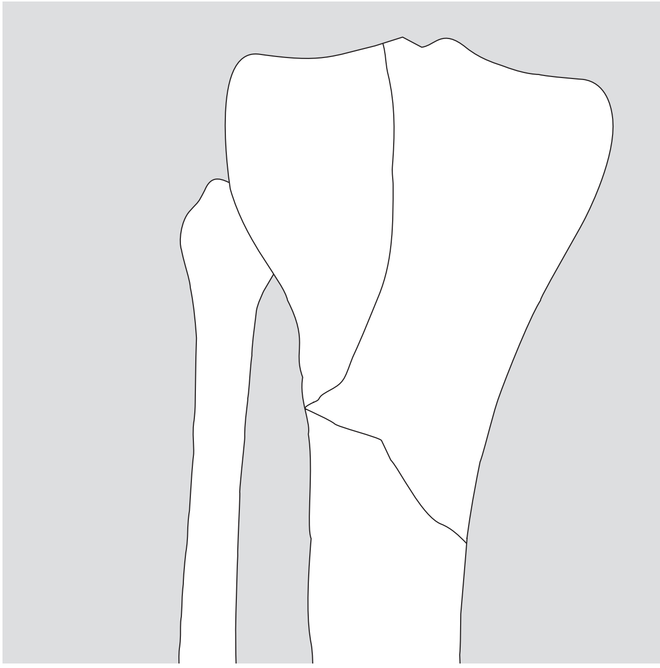
■ **Note:**
Required drill bits for threaded and gliding holes and taps for the individual screw sizes can be found in the chapter "Screws, Drills and Taps".

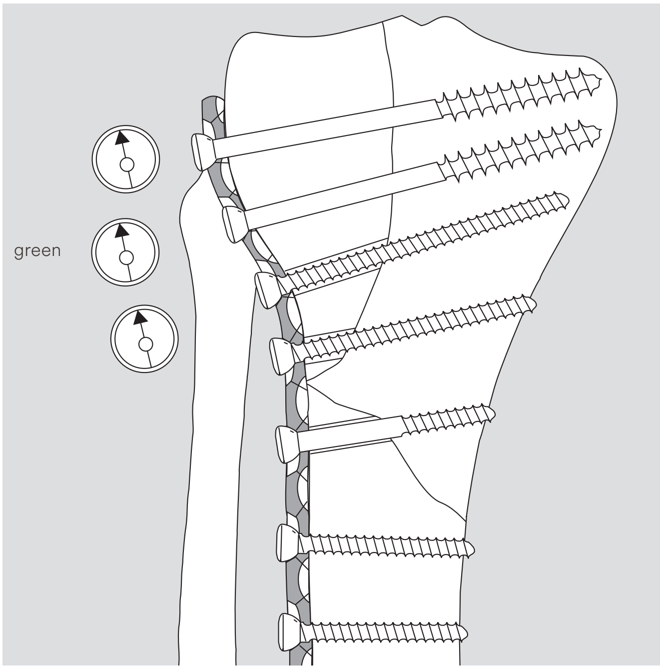
The buttress plate technique is shown using the example of a shear fracture of the lateral part of the tibial head combined with a short oblique fracture.

First the distal oblique fracture is treated as in the previously illustrated examples.

All the screw holes in the buttress region are prepared with the universal drill guide or the green drill guide (neutral position) of the LC-DCP drill guide.

The arrow of the drill guide must point away from the fracture. The proximally positioned cancellous bone screws and cortex screws act as lag screws. The thread grips only in the opposite fragment, so that there is compression between the fragments. The use of the green drill guide with the arrow pointing away from the fracture prevents the tibial plateau fragment and the plate from slipping. In this situation, the screw heads are buttressed by the hole edge adjacent to the fracture.



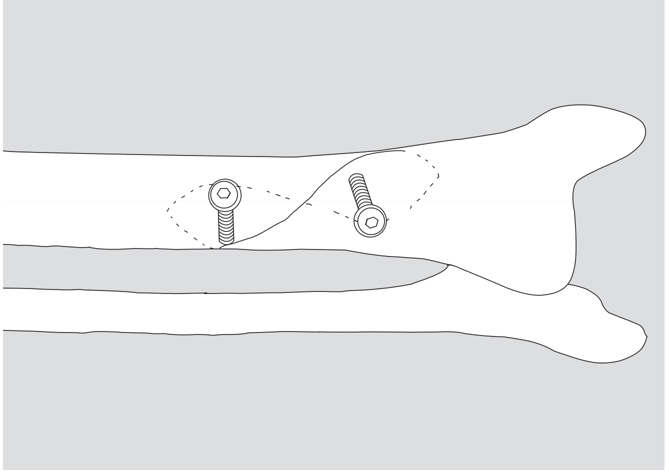


Implant Removal

In case the physician decides to remove the implants, they can be removed by using general surgical instruments.

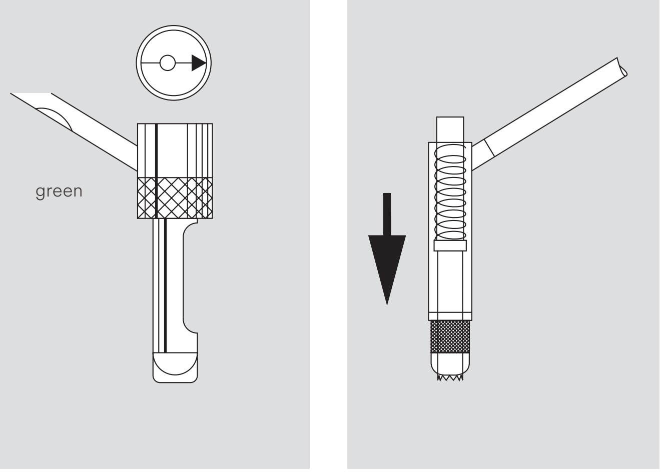
Neutralization Plate (Protecting Plate)

Adapt spiral fracture with two separate lag screws.

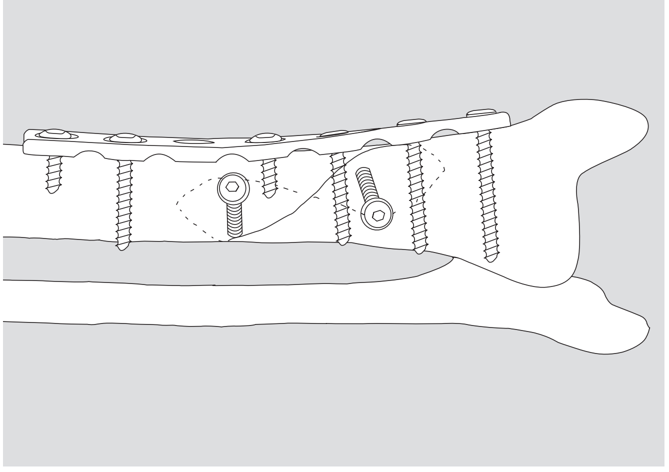


Position the plate to bridge the fracture using the LC-DCP drill guide (3.5 and 4.5 screws only) or the universal drill guide.

When using the green drill guide of the LC-DCP drill guide the arrow must point towards the fracture. When using the universal drill guide seat it at the hole edge remote from the fracture, depress the outer sleeve so that the upper part projects for neutral position.



To complete fracture treatment, determine screw lengths and insert screws after having tapped the threads for non-self-tapping screws.



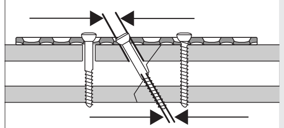
Implant Removal

In case the physician decides to remove the implants, they can be removed by using general surgical instruments.

Screws, Drills and Taps

Cortex Screws for Minifragments
Screws – drills – taps

SYNTHES®

Screw recess	Cruciform	Cruciform	Cruci-form	Hex	Cruci-form	Star-drive	Hex	Cruci-form	Stardrive	Hex	Stardrive
	1.0 mm	1.3 mm	1.5/2.0 mm	1.5 mm	1.5/ 2.0 mm	T6	1.5 mm	2.4 mm	T8	2.5 mm	T8
Screw type	**∅ 1.0 mm**	**∅ 1.3 mm**	**∅ 1.5 mm**		**∅ 2.0 mm**			**∅ 2.4 mm**		**∅ 2.7 mm**	
self-tapping	●	●	●		●	●	●	●	●	●	●
not self-tapping			●	●	●					●	
Gliding hole  **Threaded hole**											
Drill Bit for gliding hole	**∅ 1.0 mm**	**∅ 1.3 mm**	**∅ 1.5 mm**		**∅ 2.0 mm**			**∅ 2.4 mm**		**∅ 2.7 mm**	
Drill Bit for threaded hole	**∅ 0.8 mm**	**∅ 1.0 mm**	**∅ 1.1 mm**		**∅ 1.5 mm**			**∅ 1.8 mm**		**∅ 2.0 mm**	
Tap 		**∅ 1.3 mm**	**∅ 1.5 mm**		**∅ 2.0 mm**			**∅ 2.4 mm**		**∅ 2.7 mm**	

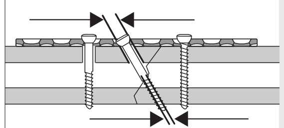
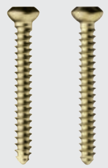
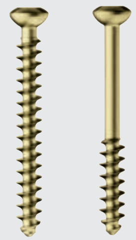
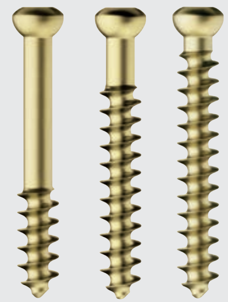
The screws are available in steel and titanium.

Sterilizable paper – max. 134 °C

Cortex Screws, Cancellous Bone Screws and Shaft Screws for Small and Large Fragments

Screws – drills – taps

SYNTHES®

Screw recess	Hex 2.5 mm	Hex 2.5 mm	Hex 2.5 mm	Hex 3.5 mm	Hex 3.5 mm
Screw type	∅ **2.7 mm**	∅ **3.5 mm**	∅ **4.0 mm**	∅ **4.5 mm**	∅ **6.5 mm**
Cortical bone					
– self-tapping	•	•		•	
– non-self-tapping	•	•		•	
– Shaft screw		•		•	
Cancellous bone screws					
– Full thread			•		•
– Long thread					•
– Short thread			•		•
Gliding hole  **Threaded hole**					
Drill Bit for gliding hole	∅ **2.7 mm**	∅ **3.5 mm**		∅ **4.5 mm**	∅ **4.5 mm**
Drill Bit for threaded hole	∅ **2.0 mm**	∅ **2.5 mm**	∅ **2.5 mm**	∅ **3.2 mm**	∅ **3.2 mm**
Tap 	∅ **2.7 mm**	∅ **3.5 mm**	∅ **4.0 mm**	∅ **4.5 mm**	∅ **6.5 mm**

The screws are available in steel and titanium.

Sterilizable paper – max. 134 °C

Mini Fragment System 1.5, 2.0, 2.7

Instruments

310.110	Drill Bit ∅ 1.1 mm, length 60/35 mm, 2-flute, for Quick Coupling
310.150	Drill Bit ∅ 1.5 mm, length 85/60 mm, 2-flute, for Quick Coupling
310.190	Drill Bit ∅ 2.0 mm, length 100/75 mm, 2-flute, for Quick Coupling
310.260	Drill Bit ∅ 2.7 mm, length 100/75 mm, 2-flute, for Quick Coupling
310.870	Countersink 2.7, length 62 mm
310.880	Countersink 1.5 to 2.4, length 52 mm, for Mini Quick Coupling
310.950	Handle with Mini Quick Coupling
311.010	Handle with Mini Quick Coupling, Stainless Steel
311.150	Tap for Cortex Screws ∅ 1.5 mm, length 50/20 mm
311.190	Tap for Cortex Screws ∅ 2.0 mm, length 53/24 mm
311.260	Tap for Cortex Screws ∅ 2.7 mm, length 100/33 mm
311.430	Handle with Quick Coupling, length 110 mm
312.140	Double Drill Guide 1.5/1.1, for No. 311.150
312.200	Triple Drill Guide 2.0, with 3 holes
312.220	Double Drill Guide 2.0/1.5
312.240	Double Drill Guide 2.7/2.0
314.020	Screwdriver, hexagonal, small, with Holding Sleeve
314.030	Screwdriver Shaft, hexagonal, small, ∅ 2.5 mm
314.060	Holding Sleeve, for Nos. 314.020, 314.030, 314.070, 314.550 and 314.570
314.670	Screwdriver Shaft 1.5/2.0, cruciform, with Holding Sleeve, length 66 mm, blue

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

319.110	Depth Gauge for Screws ∅ 1.5 and 2.0 mm, measuring range up to 26 mm
319.390	Sharp Hook, length 155 mm
319.970	Screw Forceps, self-holding, length 85 mm
329.010	Bending Iron for Plates 1.5 and 2.0, length 130 mm
329.120	Bending Pliers for Plates 1.5 to 2.7, length 140 mm
391.820	Wire Bending Pliers, length 155 mm, for Wires up to ∅ 1.25 mm
391.950	Cutting Pliers for Plates 1.5 to 2.7, length 256 mm
391.970	Wire Cutter, short, length 175 mm
392.020	Bending Iron for Kirschner Wires, for Wires ∅ 0.8 to 1.25 mm
398.400	Reduction Forceps with Points, narrow, ratchet lock, length 132 mm
398.410	Reduction Forceps, with Points, wide, ratchet lock, length 132 mm
398.960	Stagbeetle Forceps, ratchet lock, length 125 mm
398.990	Holding Forceps for Small Plates, ratchet lock, length 135 mm
399.000	Holding Forceps for Finger Plates, ratchet lock, length 135 mm
399.180	Bone Lever, small, short narrow tip, width 6 mm, length 160 mm
399.190	Bone Lever, small, short narrow tip, width 8 mm, length 160 mm
399.450	Bone Lever, width 15 mm, length 120 mm, end of handle ring-shaped
399.480	Periosteal Elevator, slightly curved blade, straight edge, width 3 mm, length 187/87 mm
399.970	Reduction Forceps with Points, ratchet lock, length 130 mm

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Plates

Stainlees Steel	Titanium (TiCP)	
	443.610	Mini Condylar Plate 2.0, pin left
	443.620	Mini Condylar Plate 2.0, pin right
242.040		Quarter Tubular Plate 2.7 with Collar, 4 holes, length 34 mm
242.060		Quarter Tubular Plate 2.7 with Collar, 6 holes, length 50 mm

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Washer ∅ 7.0/3.6 mm

Stainlees Steel	Titanium (TiCP)	
219.980	419.980	for Screws ∅ 2.7 to 4.0 mm

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Wires

Kirschner Wire
With trocar tip, pack of 10 units

Stainlees Steel	∅ (mm)	Length (mm)
292.060.10	0.6	70
292.080.10	0.8	70
292.100.10	1.0	150
292.120.10	1.25	150
292.160.10	1.6	150

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Compact Hand 1.0, 1.3, 1.5, 2.0, 2.4

Compact Hand 1.0/1.3

Instruments

310.882	Countersink 1.3 to 2.0, length 50 mm, for Mini Quick Coupling
312.133	Double Drill Guide 1.3/1.0
314.413	Screwdriver Shaft 1.3, cruciform, with Holding Sleeve, length 62 mm, for Mini Quick Coupling
314.481	Screwdriver Shaft 1.0, cruciform, with Holding Sleeve, length 62 mm, with Mini Quick Coupling
316.385	Drill Bit ∅ 0.8 mm, length 40/16 mm, 2-flute, for Mini Quick Coupling
513.005	Drill Bit ∅ 1.0 mm, length 46/34 mm, 2-flute, for Mini Quick Coupling
513.035	Drill Bit ∅ 1.3 mm, length 46/34 mm, 2-flute, for Mini Quick Coupling

Plates

Stainlees Steel	Titanium (TiCP)	
221.312	421.312	Adaption Plate 1.3, 12 holes
221.320	421.320	Strut Plate 1.3, obliqueangled, right, 8 holes
221.321	421.321	Strut Plate 1.3, obliqueangled, left, 8 holes
221.333	421.333	T-Adaption Plate 1.3, head 3 holes, shaft 8 holes
221.334	421.334	T-Adaption Plate 1.3, head 4 holes, shaft 8 holes
221.335	421.335	Y-Adaption Plate 1.3, 11 holes

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Screws

Cortex Screw ∅ 1.0 mm, self-tapping

Stainless Steel	Titanium (TiCP)	Length (mm)
200.526	400.526	6
200.527	400.527	7
200.528	400.528	8
200.529	400.529	9
200.530	400.530	10
200.531	400.531	11
200.532	400.532	12
200.533	400.533	13
200.534	400.534	14

Cortex Screw ∅ 1.3 mm, self-tapping
∅ 1.3 mm, self-tapping

Stainless Steel	Titanium (TiCP)	Length (mm)
200.686	400.686	6
200.687	400.687	7
200.688	400.688	8
200.689	400.689	9
200.690	400.690	10
200.691	400.691	11
200.692	400.692	12
200.693	400.693	13
200.694	400.694	14
200.695	400.695	15
200.696	400.696	16
200.698	400.698	18

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Compact Hand 1.5

Instruments

310.880	Countersink 1.5 to 2.4, length 52 mm, for Mini Quick Coupling
312.140	Double Drill Guide 1.5/1.1, for No. 311.150
314.667	Screwdriver Shaft 1.5, cruciform, with Holding Sleeve, length 66 mm, with Mini Quick Coupling
513.030	Drill Bit ∅ 1.1 mm, length 45/33 mm, 2-flute, for Mini Quick Coupling
513.080	Drill Bit ∅ 1.5 mm, length 52/40 mm, 2-flute, for Mini Quick Coupling

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Screws

Cortex Screw ∅ 1.5 mm, self-tapping

Stainless Steel	Titanium alloy (TAN)	Length (mm)
200.806	400.806	6

Stainless Steel	Titanium (TiCP)	Length (mm)
200.807	400.807	7
200.808	400.808	8
200.809	400.809	9
200.810	400.810	10
200.811	400.811	11
200.812	400.812	12
200.813	400.813	13
200.814	400.814	14
200.816	400.816	16
200.818	400.818	18
200.820	400.820	20
200.822	400.822	22
200.824	400.824	24

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Compact Hand 2.0

Instruments

310.880	Countersink 1.5 to 2.4, length 52 mm, for Mini Quick Coupling
312.220	Double Drill Guide 2.0/1.5
314.672	Screwdriver Shaft 2.0, cruciform, with Holding Sleeve, length 66 mm, with Mini Quick Coupling
323.200	Universal Drill Guide 2.0
513.090	Drill Bit ∅ 1.5 mm, length 67/55 mm, 2-flute, for Mini Quick Coupling
513.140	Drill Bit ∅ 2.0 mm, length 67/55 mm, 2-flute, for Mini Quick Coupling

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Plates

Stainlees Steel	Titanium (TiCP)	
243.480	443.480	Mini H-Plate 2.0, 4 holes

Available nonsterile or sterile-packed.
Add "S" to catalog number to order sterile product.

Screws

Cortex Screw ∅ 2.0 mm, self-tapping

Stainlees Steel	Titanium alloy (TAN)	Length (mm)
201.806	401.806	6
201.807	401.807	7
201.808	401.808	8
201.809	401.809	9
201.810	401.810	10
201.811	401.811	11
201.812	401.812	12
201.813	401.813	13
201.814	401.814	14
201.816	401.816	16
201.818	401.818	18
201.820	401.820	20
201.822	401.822	22
201.824	401.824	24
201.826	401.826	26
201.828	401.828	28
201.830	401.830	30
201.832	401.832	32
201.834	401.834	34
201.836	401.836	36
201.838	401.838	38

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Compact Hand 2.4

Instruments

310.880	Countersink 1.5 to 2.4, length 52 mm, for Mini Quick Coupling
312.920	Drill Sleeve 1.8, with centering thread
313.940	Screwdriver, cruciform, with Holding Sleeve, for Cortex Screws ∅ 2.4 mm
314.672	Screwdriver Shaft 2.0, cruciform, with Holding Sleeve, length 66 mm, with Mini Quick Coupling
317.861	Drill Bit ∅ 1.8 mm, length 80/66 mm, 2-flute, for Mini Quick Coupling
317.871	Drill Bit ∅ 2.4 mm, length 80/66 mm, 2-flute, for Mini Quick Coupling
323.202	Universal Drill Guide 2.4

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Plates

Stainlees Steel	Titanium (TiCP)
249.919	T-Adaption Plate 2.4, head 3 holes, shaft 10 holes

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Screws and Buttress Pins

Cortex Screw ∅ 2.4 mm, self-tapping, for Compact Hand 2.4

Stainlees Steel	Titanium alloy (TAN)	Length (mm)
201.636	401.636	6
201.637	401.637	7
201.638	401.638	8
201.639	401.639	9
201.640	401.640	10
201.641	401.641	11
201.642	401.642	12
201.643	401.643	13
201.644	401.644	14
201.646	401.646	16
201.648	401.648	18
201.650	401.650	20
201.652	401.652	22
201.654	401.654	24
201.656	401.656	26
201.658	401.658	28
201.660	401.660	30
201.662	401.662	32
201.664	401.664	34
201.666	401.666	36
201.668	401.668	38
201.670	401.670	40

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

Buttress Pin ∅ 1.8 mm

Stainlees Steel	Titanium alloy (TAN)	Length (mm)
201.962	401.962	12
201.964	401.964	14
201.966	401.966	16
201.968	401.968	18

Available nonsterile or sterile-packed.
Add “S” to catalog number to order sterile product.

DCP One-third Tubular Plate 3.5

241.320–241.420	One-third Tubular Plate 3.5 with Collar, 2 to 12 holes, length 28 to 148 mm, Stainless Steel
441.320–441.420	One-third Tubular Plate 3.5 with Collar, 2 to 12 holes, length 28 to 148 mm, Pure Titanium

Available nonsterile or sterile-packed.
Add "S" to catalog number to order sterile product.

MRI Information

Torque, Displacement and Image Artifacts according to ASTM F 2213-06, ASTM F 2052-14 and ASTM F 2119-07

Non-clinical testing of worst case scenario in a 3 T MRI system did not reveal any relevant torque or displacement of the construct for an experimentally measured local spatial gradient of the magnetic field of 3.69 T/m. The largest image artifact extended approximately 169 mm from the construct when scanned using the Gradient Echo (GE). Testing was conducted on a 3 T MRI system.

Radio-Frequency-(RF-)induced heating according to ASTM F 2182-11a

Non-clinical electromagnetic and thermal testing of worst case scenario lead to peak temperature rise of 9.5 °C with an average temperature rise of 6.6 °C (1.5 T) and a peak temperature rise of 5.9 °C (3 T) under MRI Conditions using RF Coils (whole body averaged specific absorption rate [SAR] of 2 W/kg for 6 minutes [1.5 T] and for 15 minutes [3 T]).

▲ Precautions:

The above mentioned test relies on non-clinical testing. The actual temperature rise in the patient will depend on a variety of factors beyond the SAR and time of RF application. Thus, it is recommended to pay particular attention to the following points:

- It is recommended to thoroughly monitor patients undergoing MR scanning for perceived temperature and/or pain sensations.
- Patients with impaired thermoregulation or temperature sensation should be excluded from MR scanning procedures.
- Generally, it is recommended to use a MR system with low field strength in the presence of conductive implants. The employed specific absorption rate (SAR) should be reduced as far as possible.
- Using the ventilation system may further contribute to reduce temperature increase in the body.

Not all products are currently available in all markets.
This publication is not intended for distribution in the USA.
Intended use, Indications and Contraindications can be found in the corresponding system Instructions for Use.
All Surgical Techniques are available as PDF files at www.depuysynthes.com/ifu

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