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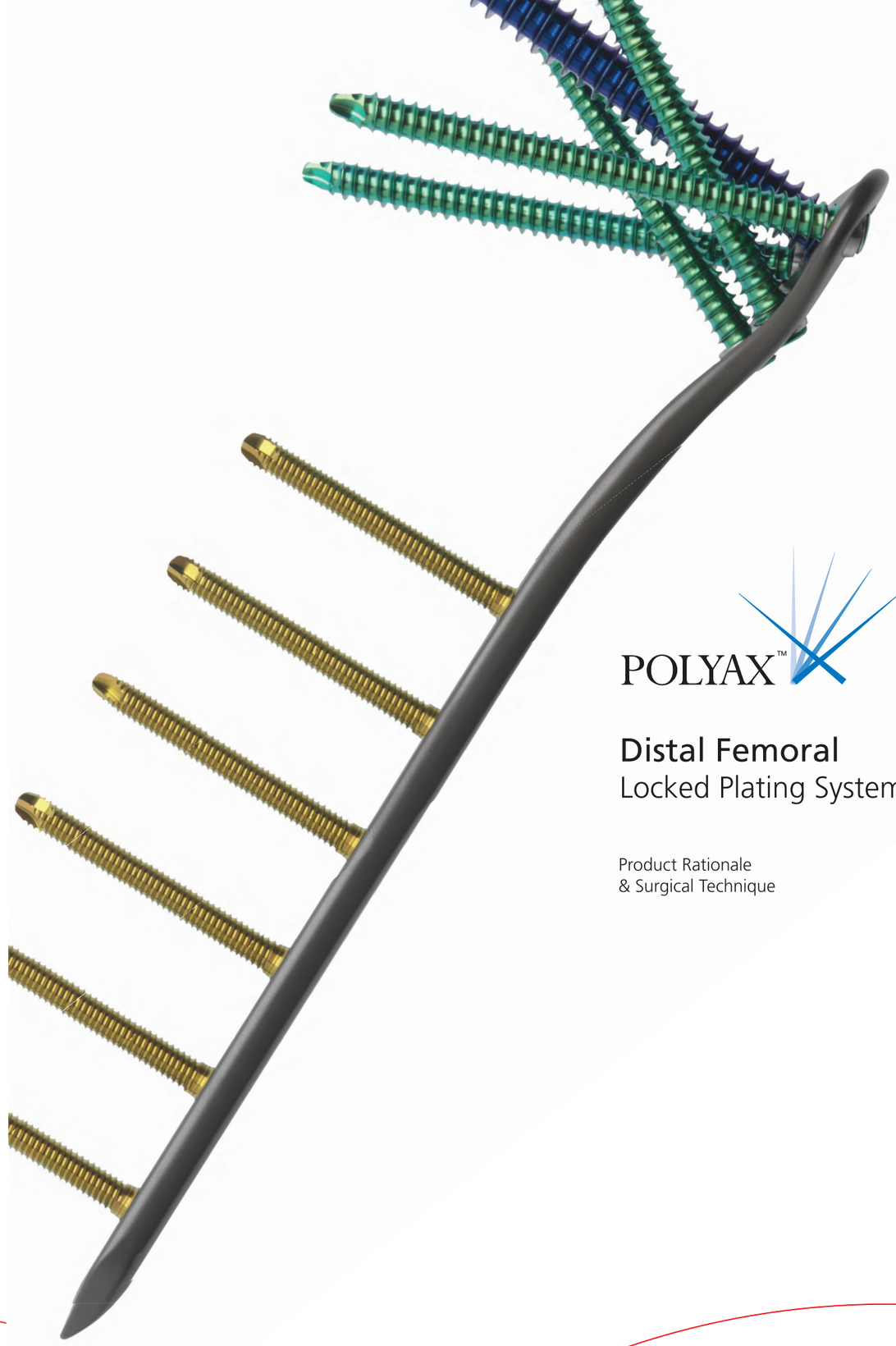

POLYAX™

Distal Femoral
Locked Plating System

Product Rationale
& Surgical Technique

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Contents

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Introduction

The POLYAX™ Locked Plating System is indicated for the treatment of distal femoral and proximal tibial fractures. Designed to give the surgeon maximum flexibility with the use of fixed-angle locking, variable-angle locking and non-locking screw options. The result is fracture fixation based on each individual patient's fracture type, bone quality and anatomy.

Each plate is manufactured from TiMAX™ anodised titanium alloy Ti-6Al-4V, which gives the plates superior fatigue strength, excellent biocompatibility and optimal stress transfer. The screws are manufactured from colour-anodised titanium alloy Ti-6Al-4V for easy identification and selection in the OR.

Indications

The POLYAX™ Locked Plating System is intended for use in cases requiring stabilisation of malunions, non-unions, and osteotomies of the distal femur and proximal tibia. It is also intended for Open Reduction Internal Fixation (ORIF) repair of closed and open fractures of the distal femur and proximal tibia including, but not limited to the following periarticular fractures, such as:

- simple comminuted
- lateral wedge
- depression
- medial wedge
- bicondylar
- combinations of lateral wedge and depression fractures with associated shaft fractures, and periprosthetic fractures

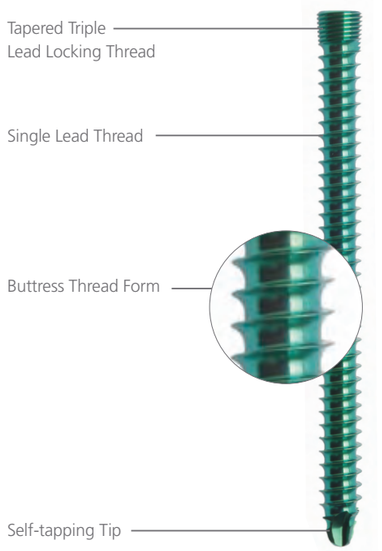
Distal Femoral Locked Plating System

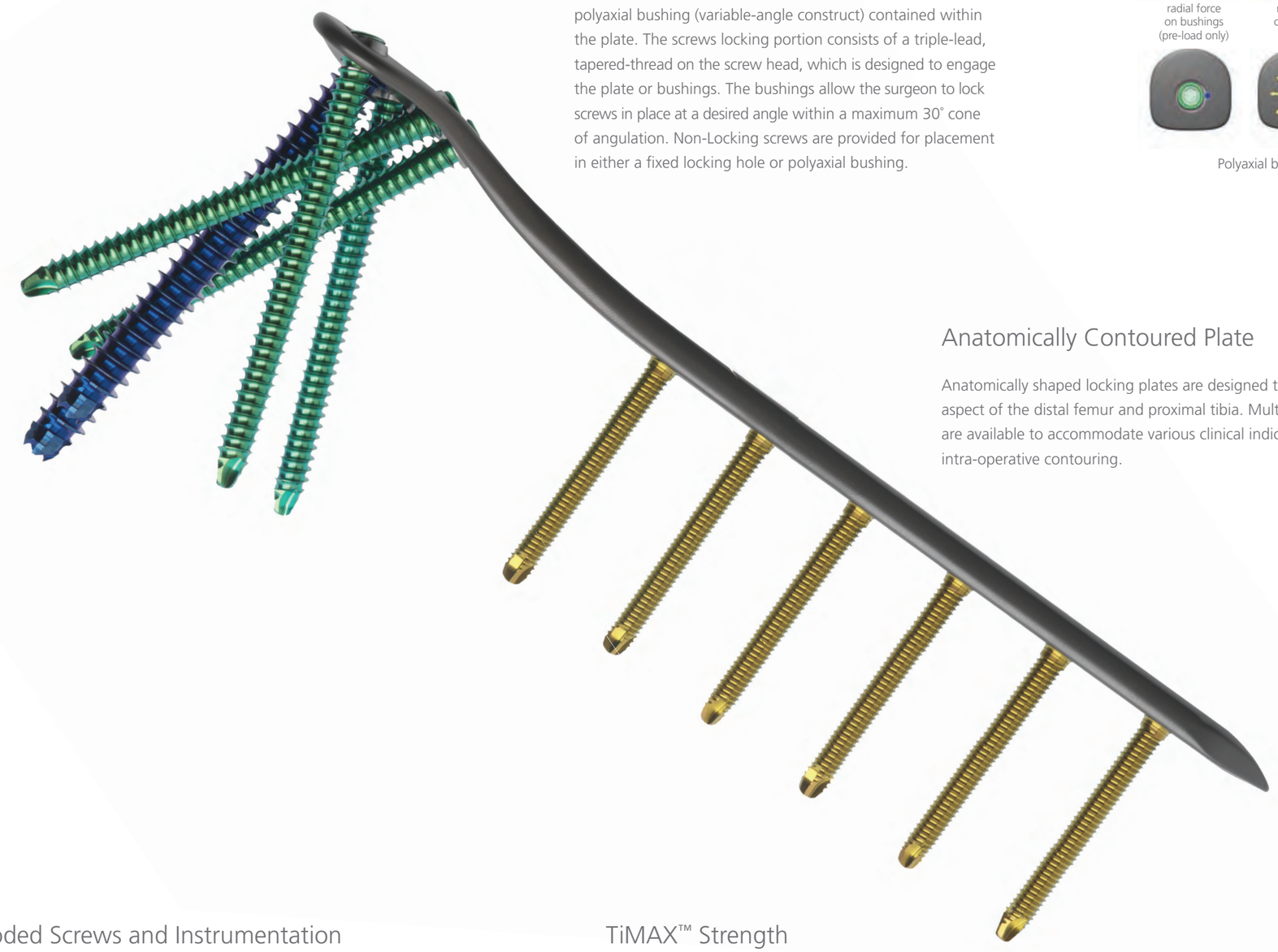
Polyaxial Screw Technology

The screw and plate technology allows for freedom of screw position at any desired angle within a 30˚ cone of angulation. This patented technology also allows for locking and lag screw options.

Multiple Options for Fixation

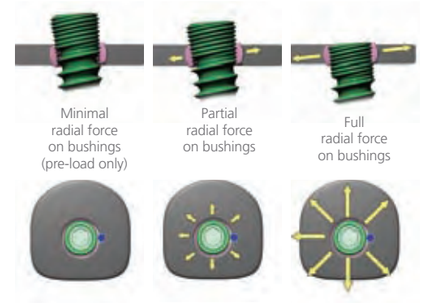
The plates have maximum stability and fixation with multiple screw options; self-tapping, variable-angle locking, fixed-angle locking, non-locking, cortical, cancellous, unicortical and bicortical.





Stable Locking Fixation

Screw locking is accomplished either by threading a screw directly into the plate (fixed-angle construct) or into a patented polyaxial bushing (variable-angle construct) contained within the plate. The screws locking portion consists of a triple-lead, tapered-thread on the screw head, which is designed to engage the plate or bushings. The bushings allow the surgeon to lock screws in place at a desired angle within a maximum 30˚ cone of angulation. Non-Locking screws are provided for placement in either a fixed locking hole or polyaxial bushing.



Polyaxial bushing operation

Anatomically Contoured Plate

Anatomically shaped locking plates are designed to fit the lateral aspect of the distal femur and proximal tibia. Multiple plate lengths are available to accommodate various clinical indications and eliminate intra-operative contouring.

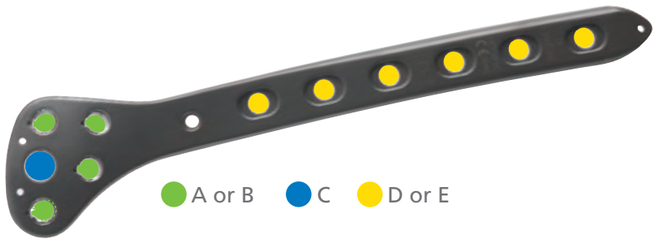
Colour-Coded Screws and Instrumentation

A minimal amount of instrumentation is required, allowing for ease of use and familiarity in the OR. The instrumentation and screws are colour-coded for easy identification and selection in the surgery.

TiMAX™ Strength

Made from TiMAX™ anodised titanium alloy, they are contoured to closely match the bone profile. The TiMAX™ alloy offers superior fatigue strength, excellent biocompatibility, optimal stress transfer.

Locking Options



Distal locking of the Femoral POLYAX™ Locked Plating System construct is accomplished by one centrally located 8.0 mm fixed-angle locking screw surrounded by four 5.5 mm polyaxial locking bushings. The proximal plate stem has threaded holes for 4.5 mm fixed-angle locking or 4.5 mm non-locking screws and is anatomically contoured to match the femoral bow. Plates are available in lengths of 6, 9, 12, 15 and 18 holes. The plate has three K-wire holes for optional intra-operative temporary fixation.

A **5.5 mm Locking Cancellous Screw**

- 25-100 mm in 5 mm increments
- Self-tapping
- 3.8 mm Drill Bit
- Common Screw Case

B **5.5 mm Non-Locking Cancellous Screw**

- 40-100 mm in 5 mm increments
- Self-tapping
- 3.8 mm Drill Bit
- Common Screw Case

C **8.0 mm Locking Cannulated Cancellous Screw**

- 25, 35, 50-90 mm in 5 mm increments
- Self-drilling
- Self-tapping
- 5.5 mm Drill Bit
- Femoral Case

D **4.5 mm Locking Cortical Screw**

- 8-16 mm, 20 mm, 26-42 mm in 2 mm increments, 45-60 mm in 5 mm increments
- Self-tapping
- 3.8 mm Drill Bit
- Common Screw Case

E **4.5 mm Non-Locking Cortical Screw**

- 14-60 mm in 2 mm increments, 65 mm, 70 mm
- Self-tapping
- 3.2 mm Drill Bit
- Common Screw Case

Surgical Technique

Patient Positioning

Position the patient supine on a fluoroscopic table with the C-arm on the opposite side of the fractured extremity. Prep both legs into the surgical field for ease of obtaining a lateral radiograph of the operative limb (accomplished by lifting the non-fractured limb out of the way) and for comparison of limb alignment, leg length and rotation.

Assess the fracture and then determine the ideal amount of traction necessary to align the fracture on the A/P view. Bumps or surgical triangles can be utilised to aid in positioning. The flexion-extension of the distal fragment can be adjusted by moving the bumps proximally or distally under the thigh (Figure 1).

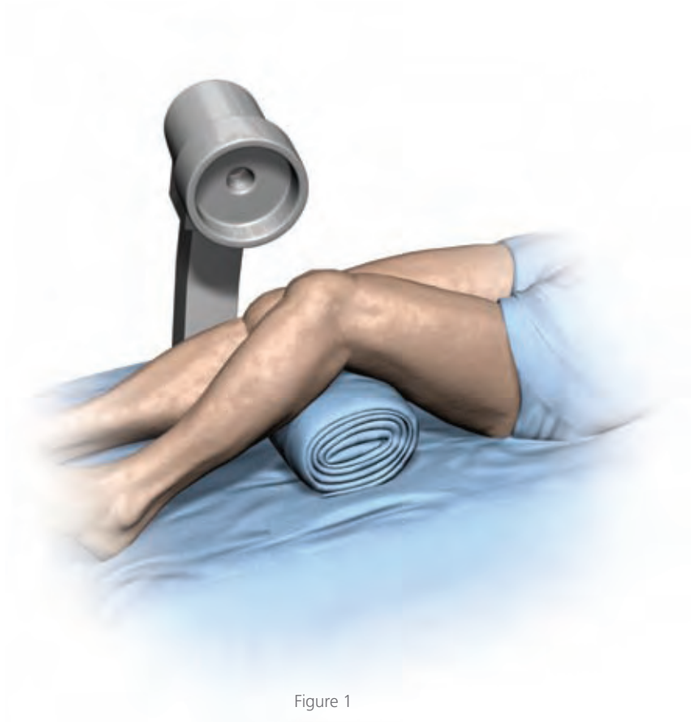


Figure 1

Templating

Verify plate length using the Intra-operative Femoral Template. Place the template on the skin and take a fluoroscopic image of the fracture, reading the appropriate plate length on the numbered template (Figure 2).

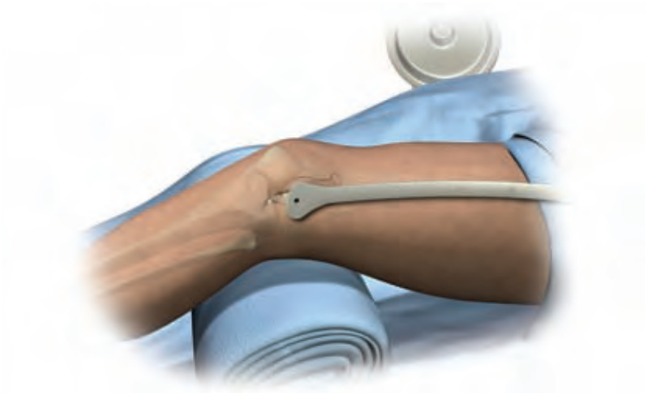


Figure 2

Incision

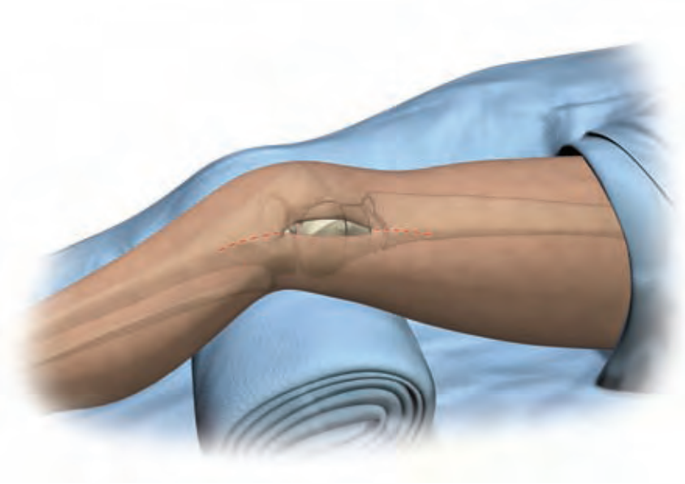


Figure 3

Make an anterolateral incision over the flare of the lateral femoral condyle (Figure 3). For extra-articular and simple non-displaced intra-articular fractures, this is often adequate exposure.

For more complex intra-articular extension, use a formal parapatellar arthrotomy (Figure 4). Obtain articular visualisation by subluxing the patella medially.

Figure 4
Make parapatellar arthrotomy for complex intra-articular fractures.

Percutaneous Approach and Plate Placement

Perform standard open reduction internal fixation of the articular surfaces by obtaining anatomic reduction and fixation with individual Lag Screws. Place Lag Screws peripherally so as not to interfere with locked screw placement.

Non-Locking Screws can also be used in the head of the plate to help achieve fracture reduction. 5.5 mm Partially Threaded Non-Locking Screws can be placed in any of the four polyaxial bushings in the head of the plate to reduce an intercondylar split. Follow the technique found on pages 16-19 for 5.5 mm Non-Locking Screw placement.

Percutaneous or standard open plating techniques can be utilised. The percutaneous technique is typically chosen for longer plates and high energy fractures.

Using the Target Guide as a handle, insert the plate in a submuscular, extraperiosteal fashion under the vastus lateralis (Figure 6). The end of the plate is bullet-shaped to assist in submuscular, percutaneous insertion.

A Cobb Elevator can be used submuscularly to aid in plate insertion as needed. Do not elevate the periosteum with the Cobb elevator, as locking plates should be extraperiosteal.

Position the distal end of the plate along the lateral femur, verifying the position with A/P and lateral fluoroscopic views of the knee. Assure appropriate alignment of the distal condyles with the distal end of the plate. Place the plate 2 mm proximal to the distal end of the lateral condyle (Figure 7). Apply gentle traction to the limb and grossly realign the femur at this time.

Tip: The POLYAX™ femoral plates are precontoured to the lateral femur and sit more anteriorly on the lateral aspect of the lateral femoral condyle and approximately 2 mm from the joint line.

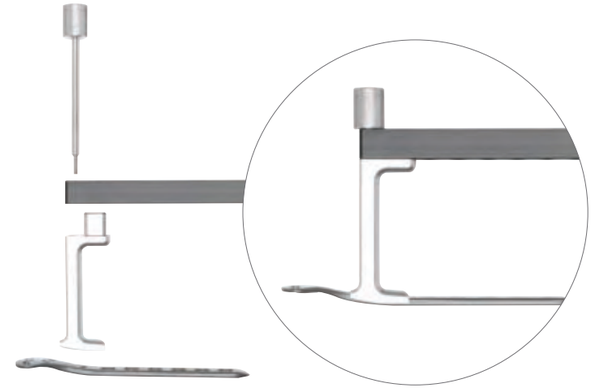


Figure 5

Assemble the selected plate, Femoral Target Guide, Femoral Handle and Femoral Connecting Screw on the back table (Figure 5). Orient the Femoral Target Guide for the appropriate left or right plate. The appropriate side will face up and be readable once assembled.

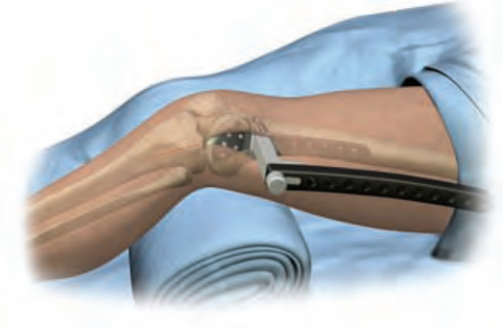


Figure 6

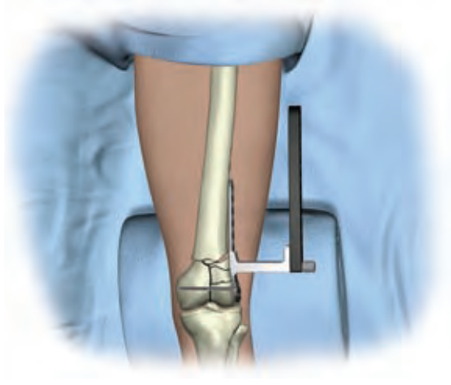


Figure 7

Preliminary Fixation

Figure 8

Figure 9

Figure 10

Obtain preliminary plate fixation to the distal femoral condylar fragment using one of the following two methods: X-large Pe.R.I.™ Tongs (suggested) or K-wires.

X-Large Pe.R.I.™ Tongs
Place one of the Tongs pointed tips through one of the two small holes on the head of the plate. Make a small medial incision for the other tip and clamp down to bring the distal end of the plate flush to the bone (Figure 8).

K-wires
Insert 1.6 mm K-wires into the two small holes in the head of the plate and check placement under fluoroscopy (Figure 9). It is important to ascertain that the plate is on the right axis of the bone in relation to the fracture.

The proximal part of the plate can be secured to the bone by inserting a 1.6 mm K-wire into the small hole at the most proximal tip of the plate (Figure 10).

3.2 mm Guide Pin Placement

Thread the 3.2 mm Pin Guide into the distal central hole in the femoral plate (Figure 11). Visually ensure that the 3.2 mm Pin Guide is approximately 2 cm proximal to the distal end of the lateral condyle and is parallel to the knee joint. If the Guide Pin is not parallel, malalignment will result, typically in the form of valgus of the distal fragment.

Figure 11

Using power, insert the 3.2 mm Calibrated Guide Pin into the 3.2 mm Pin Guide (Figure 12). Verify that the Guide Pin is parallel to the joint line with an A/P fluoroscopic image. Take great care to avoid valgus and hyper-extension malalignment of the distal fragment.

If hyperextension is noted, leave the 3.2 mm Guide Pin in place, release the Pe.R.I.™ Tongs and gently rotate the distal fragment into flexion. Reapply the Pe.R.I.™ Tongs.

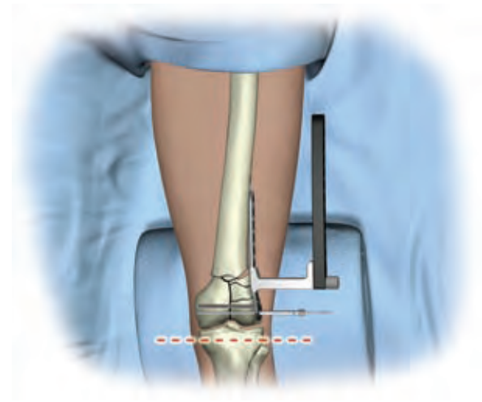


Figure 12

With an assistant placing gentle traction on the limb and while maintaining correct limb alignment, length, and rotation, centre the plate on the shaft of the femur. Ensure alignment using A/P and lateral fluoroscopic views (Figure 13).

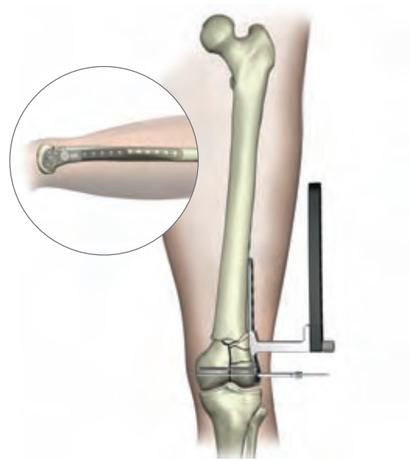


Figure 13

Varus-Valgus Correction

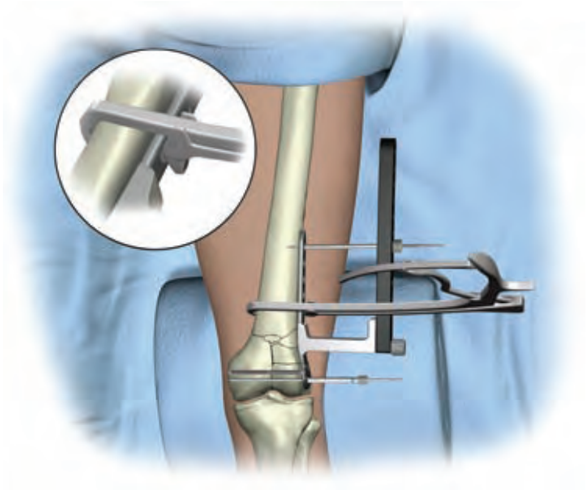


Figure 14

If additional varus-valgus correction is needed, utilise one of the following methods: Femoral Bone Clamp, Anchor Bolt or 4.5 mm Non-Locking Screws (suggested).

Femoral Bone Clamp

Under fluoroscopy, identify the mid-portion of the plate. Make a small incision on the lateral thigh, just anterior to the Target Guide. Spread the soft tissue down to the bone. Insert the femoral bone clamp through the incision and secure the plate to the bone. The foot of the clamp will fit into the plate hole and give tactile feedback that the clamp is seated properly in the plate. Confirm the clamp is ratcheted down snugly (Figure 14).

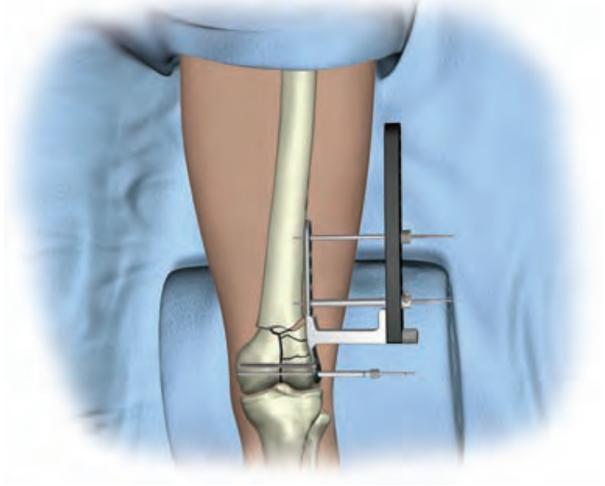


Figure 15

Anchor Bolt

Place the Trocar through the Percutaneous Sheath and insert it into the desired hole in the Target Arm. Make a stab incision and insert the sheath and trocar through the incision, advancing it down to the bone. The sheath's "feet" will give tactile feedback that the sheath is seated in the plate hole when the sheath's handle is perpendicular to the target guide.

Tip: The holes of the radiolucent Target Guide are numbered. Find the desired plate hole by reading the corresponding numbered hole on the Target Guide.

Remove the Trocar and insert the Anchor Bolt through the Percutaneous Sheath (Figure 15). Under power, advance the anchor bolt slowly until the shoulder of the bolt contacts the plate. Advancing it beyond this point could result in the threads stripping the bone.

Leaving the sheath in place, thread the Anchor Bolt Nut onto the Anchor Bolt. Orient the knurled end of the nut towards the sheath or away from the quick coupling end of the bolt (Figure 16).

Figure 16

To achieve varus-valgus correction, advance the nut toward the sheath and monitoring progress under fluoroscopy, continue tightening the Anchor Bolt Nut until the desired reduction is achieved (Figure 17).

Tip: Use caution when using the Anchor Bolt for additional varus-valgus correction in osteoporotic or poor-quality bone.

Repeat the previous steps until the desired reduction has been achieved.

4.5 mm Non-Locking Shaft Screws can be used to pull the plate to the bone and help achieve fracture reduction. The technique for placement of 4.5 mm Non-Locking Shaft Screws is found on pages 20 and 21.

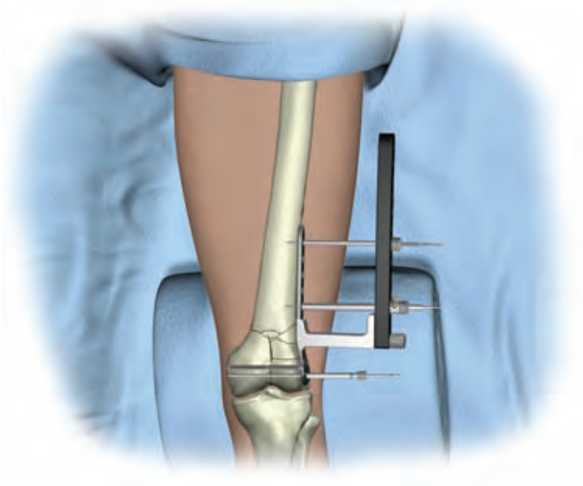


Figure 17

8.0 mm Cannulated Locking Screw

Figure 18
Read screw length from Calibrated Pin Guide.

Figure 19
Re-check length with Depth Gauge.

At this point, it is critical to ensure appropriate limb length, alignment and rotation. Reduction, length and alignment must be achieved prior to placement of any locking screws. Carefully assess for hyperextension or valgus deformity of the distal fragment or any fracture site distraction.

The first locking screw placed should be the 8.0 mm Fixed-Angle Locking Screw in the head of the plate.

Re-check correct 3.2 mm Guide Pin position and depth using fluoroscopy. Note the correct screw length by taking a direct reading from the Calibrated Guide Pin at the top of the Pin Guide (Figure 18). Remove the 3.2 mm Pin Guide over the Guide Pin.

If verification of screw length is desired, place the 3.2 mm Guide Pin Depth Gauge over the Guide Pin and read the correct length using the top – not the blue colour band – of the Guide Pin for reference (Figure 19). Ensure that the Depth Gauge is down to the bone before taking a reading.

The 8.0 mm Locking Screw is self-drilling and self-tapping, but it may be necessary to pre-drill in certain cases. Drill the lateral cortex with the 5.5 mm Cannulated Drill Bit if necessary (Figure 20).

Figure 20

Insert the appropriate length 8.0 mm Cannulated Cancellous Locking Screw over the Guide Pin using the 5 mm Hex Cannulated Screwdriver coupled to the Cannulated Hudson T-Handle (Figure 21).

The use of a power screwdriver is not recommended for insertion of locking screws.

Figure 21

5.5 mm Cancellous Locking and Non-Locking Screws

Figure 22

Figure 23

Use 5.5 mm Cancellous Locking Screws to obtain additional distal fixation as the fracture pattern dictates. The order (and quantity) of screw placement is left to the surgeon's discretion. In general, use all distal screws and at least four proximal shaft screws.

The following is a guideline for screw placement.

Thread the 3.8 mm Threaded Drill Guide into one of the four polyaxial bushings in the head of the plate (Figure 22). Avoid over-tightening the Drill Guide. Rotate the Drill Guide to the desired angle of screw insertion. Retighten the Drill Guide during orientation if necessary.

Tip: The two Distal Screws can be placed with the Target Guide in place. To achieve full 30-degree angulation in the two proximal 5.5 mm bushings, the Target Guide must be removed. Therefore, placing the two 5.5 mm Locking Screws after the Target Guide has been removed may be necessary.

Using the 3.8 mm Calibrated Drill Bit, drill through the Threaded Drill Guide, across the condyles (Figure 23).

Verify the correct screw position and depth using fluoroscopy. Note the correct screw length by taking a direct reading from the Calibrated Drill Bit at the top of the Drill Guide (Figure 24).

Tip: To maintain bushing alignment during removal of the Threaded Drill Guide, leave the Drill Bit in the bone, unscrew the Drill Guide and either tap the Drill Bit out of the bone with the Drill Guide or remove the Drill Bit using power. Place a K-wire into the drill hole to visualise screw trajectory prior to screw insertion.

If a second method of assessment is desired, use the Universal Depth Gauge through the Threaded Drill Guide, reading the depth from the top of the guide (Figure 25).

Figure 24

Figure 25

5.5 mm Cancellous Locking and Non-Locking Screws

Figure 26

With the 3.8 mm Threaded Drill Guide removed, insert the appropriate length 5.5 mm Cancellous Locking or Non-Locking Screw with the 4.5 / 6.5 mm Large Fragment Screwdriver Shank on the Ratchet Screwdriver Handle. If using a Locking Screw, stop when the locking threads in the screw head engage the plate and switch to the 4.5 Nm Torque-Limiting Screwdriver. If using a Non-Locking Screw, tighten the screw in the plate hole until desired reduction is achieved (Figure 26).

The use of a power screwdriver is not recommended for insertion of locking screws.

Tip: The 4.5 / 6.5 mm Large Fragment Screwdriver Shank is the shorter of the two Screwdriver Shanks and is not colour-banded. Do not use the longer, yellow colour-banded 4.5 mm Percutaneous Screwdriver to insert the 5.5 mm Cancellous Screw as the torque generated on the screw will be greater than the 4.5 Nm torque limit.

Figure 27

Perform final tightening of the 5.5 mm Locking Screw with the 4.5 Nm Torque-Limiting Screwdriver. A palpable, audible click will be felt and heard when the screw is locked into the plate (Figure 27).

Repeat the steps on pages 16-19 as necessary for additional 5.5 mm Cancellous Screw placement (Figures 28 and 29).

Figure 28

Figure 29

4.5 mm Non-Locking Shaft Screws

Figure 30

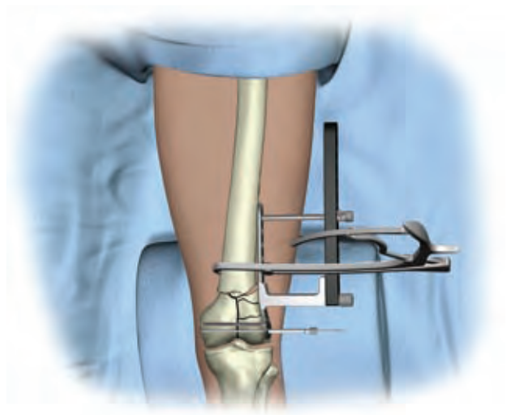


Figure 31

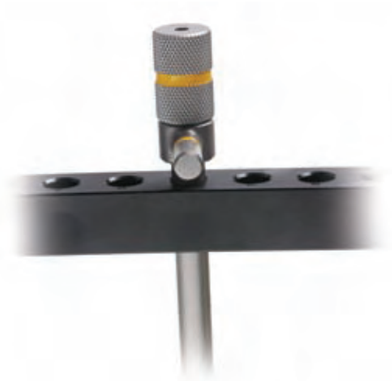


Figure 32

Non-Locking Screws can be used with caution to "pull the plate to the bone" and aid in fracture reduction. If the fracture is not yet reduced and the plate sits off the bone, pulling the bone to the plate may aid in reduction. If, however, the fracture is reduced and the plate sits off the bone a couple of millimetres, pulling the plate to the bone will actually cause a loss of reduction. If the fracture is reduced, it is acceptable for a locking plate to sit off the bone a few millimetres. Non-Locking Screws can be replaced with Locking Screws as needed.

The screw holes in the shaft of the plate can be located using fluoroscopy for a percutaneous approach. Or screws can be placed using an open surgical approach (Figure 30).

Place the Trocar through the Percutaneous Sheath and insert the assembly into the selected hole in the Target Guide. Make a stab incision through the skin and soft tissue to the plate. Advance the sheath and trocar into the plate hole and remove the trocar. The sheath's "feet" will give tactile feedback that the sheath is seated in the plate hole when the sheath's handle is perpendicular to the Target Guide (Figure 31).

Insert the 3.8 mm Threaded Drill Guide through the sheath and thread the guide into the plate hole (Figure 32).

Drill through the 3.8 mm Threaded Drill Guide using the 3.2 mm Calibrated Drill Bit. Use the 4.5 mm Tap as needed in dense bone. Determine the correct screw length by reading the depth from the Calibrated Drill Bit at the top of the guide. Add 4 mm to the depth assessment if it is desirable to have the tapping flutes extend past the far cortex (Figure 33).

Figure 33

Remove the 3.8 mm Threaded Drill Guide. Place the appropriate length 4.5 mm Non-Locking Cortical Screw through the Percutaneous Sheath with the 4.5 mm Percutaneous Screwdriver either under power or by hand with the Ratchet Screwdriver (Figure 34).

Repeat the previous steps until the plate has been pulled sufficiently to the bone or the desired shaft reduction has been achieved.

Figure 34

4.5 mm Locking Shaft Screws

Figure 35

Use 4.5 mm Locking Shaft Screws to obtain additional proximal fixation as the fracture pattern dictates. The order (and quantity) of screw placement is left to the surgeons discretion. In general, use all distal screws and at least four proximal shaft screws. The following is a guideline for screw placement.

The screw holes in the shaft of the plate can be located using fluoroscopy for a percutaneous approach. Or screws can be placed using an open surgical approach (Figure 35).

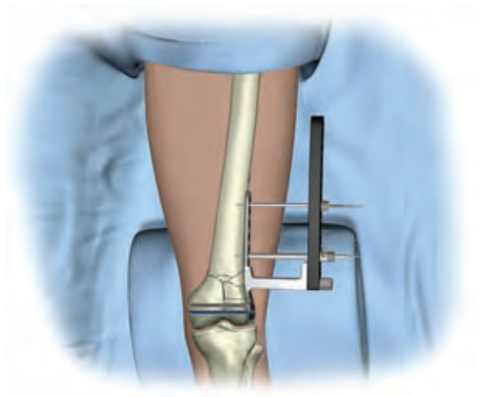


Figure 36

Place the Trocar through the Percutaneous Sheath and insert the assembly into the selected hole in the Target Guide. Make a stab incision through the skin and soft tissue to the plate. Advance the Sheath and Trocar into the plate hole and remove the Trocar. The sheath's "feet" will give tactile feedback that the sheath is seated in the plate hole when the sheath's handle is perpendicular to the Target Guide (Figure 36).

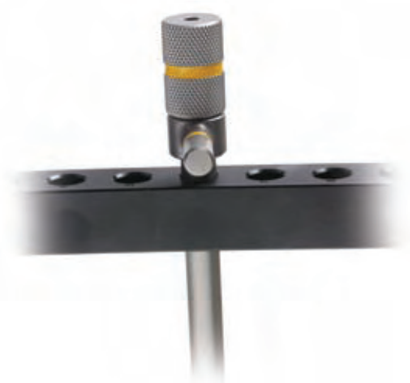


Figure 37

Insert the 3.8 mm Threaded Drill Guide through the sheath and thread the guide into the plate hole (Figure 37).

Drill through the 3.8 mm Threaded Drill Guide using the 3.8 mm Calibrated Drill Bit. Use the 4.5 mm Tap as needed in dense bone. Determine the correct screw length by reading the depth from the Calibrated Drill Bit at the top of the guide. Add 4 mm to the depth reading if it is desirable to have the tapping flutes extend past the far cortex (Figure 38).

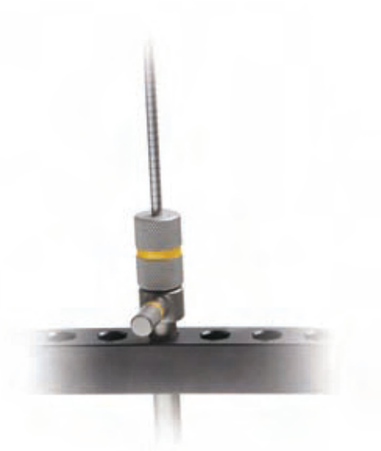


Figure 38

The 8 mm, 10 mm and 12 mm 4.5 mm Cortical Locking Screws have a blunt tip. Use the 4.5 mm tap as needed prior to insertion of these screws.

If a second method of assessment is desired, remove the Drill Bit, insert the Universal Depth Gauge and take a depth reading on the gauge at the top of the Drill Guide (Figure 39).

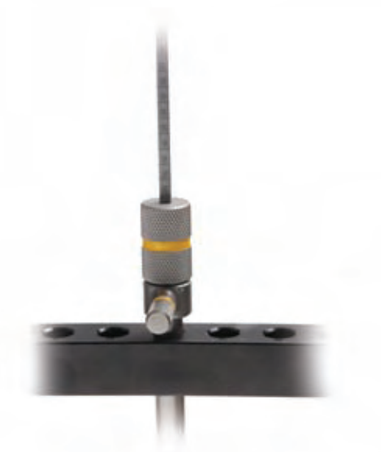


Figure 39

With the 3.8 mm Threaded Drill Guide removed, place the appropriate length 4.5 mm Cortical Locking Screw through the Percutaneous Sheath with the gold-banded 4.5 mm Percutaneous Screwdriver on the Ratchet Screwdriver Handle. Stop when the gold band on the screwdriver reaches the top of the sheath, as this indicates that the locking threads of the screw head will now engage the threaded plate hole, and switch to the 4.5 Nm Torque-Limiting Screwdriver for final tightening (Figure 40).

The use of a power screwdriver is not recommended for insertion of locking screws.

Figure 40

4.5 mm Locking Shaft Screws

Figure 41

Perform final tightening of the 4.5 mm Locking Screws with the 4.5 Nm Torque-Limiting Screwdriver (Figure 41). A palpable, audible click will be felt and heard when the screw is locked into the plate.

Repeat the previous steps for the remaining threaded shaft holes as desired.

If using the Anchor Bolt, remove the Anchor Bolt Nut and Anchor Bolt, and replace with a 4.5 mm Locking Screw following the above technique.

Figure 42

Remove the target assembly, gaining access to the remaining two proximal polyaxial holes and the most distal threaded shaft hole. Follow the previously detailed steps for placement of the 5.5 mm Locking Screws in the head of the plate and 4.5 mm Locking Screws in the shaft of the plate as necessary (Figures 42 and 43).

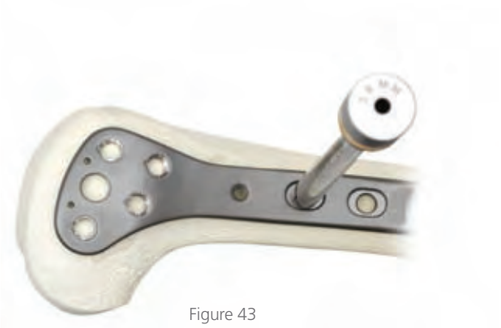


Figure 43
Fill proximal shaft hole.

Close the wound in layers over a suction drain. For distal fractures, a hinged knee brace adds coronal plane stability while allowing knee flexion. Begin physical therapy when the wound is dry and the swelling has subsided. Higher energy injuries may require a period of soft tissue healing after surgery and before range of motion can be addressed aggressively. Weight bearing is typically deferred for 10-12 weeks for fractures with intra-articular involvement. Patients with extra-articular fractures are allowed a gradual progression of weight bearing beginning at 6-8 weeks, if a callus is present.

Implants and Screws

Femoral Plates

Sterile	Description		
8141-30-106	6 Hole	Right	179.4 mm
8141-30-109	9 Hole	Right	233.5 mm
8141-30-112	12 Hole	Right	287.6 mm
8141-30-115	15 Hole	Right	341.7 mm
8141-30-118	18 Hole	Right	395.8 mm
8141-31-106	6 Hole	Left	179.4 mm
8141-31-109	9 Hole	Left	233.5 mm
8141-31-112	12 Hole	Left	287.6 mm
8141-31-115	15 Hole	Left	341.7 mm
8141-31-118	18 Hole	Left	395.8 mm

Screws

Non Sterile	Description
8154-55-040	5.5 x 40.0 mm Cancellous Non-Locking Screw
8154-55-045	5.5 x 45.0 mm Cancellous Non-Locking Screw
8154-55-050	5.5 x 50.0 mm Cancellous Non-Locking Screw
8154-55-055	5.5 x 55.0 mm Cancellous Non-Locking Screw
8154-55-060	5.5 x 60.0 mm Cancellous Non-Locking Screw
8154-55-065	5.5 x 65.0 mm Cancellous Non-Locking Screw
8154-55-070	5.5 x 70.0 mm Cancellous Non-Locking Screw
8154-55-075	5.5 x 75.0 mm Cancellous Non-Locking Screw
8154-55-080	5.5 x 80.0 mm Cancellous Non-Locking Screw
8154-55-085	5.5 x 85.0 mm Cancellous Non-Locking Screw
8154-55-090	5.5 x 90.0 mm Cancellous Non-Locking Screw
8154-55-095	5.5 x 95.0 mm Cancellous Non-Locking Screw
8154-55-100	5.5 x 100.0 mm Cancellous Non-Locking Screw

8153-55-025	5.5 x 25.0 mm Cancellous Locking Screw
8153-55-030	5.5 x 30.0 mm Cancellous Locking Screw
8153-55-035	5.5 x 35.0 mm Cancellous Locking Screw
8153-55-040	5.5 x 40.0 mm Cancellous Locking Screw
8153-55-045	5.5 x 45.0 mm Cancellous Locking Screw
8153-55-050	5.5 x 50.0 mm Cancellous Locking Screw
8153-55-055	5.5 x 55.0 mm Cancellous Locking Screw
8153-55-060	5.5 x 60.0 mm Cancellous Locking Screw
8153-55-065	5.5 x 65.0 mm Cancellous Locking Screw
8153-55-070	5.5 x 70.0 mm Cancellous Locking Screw
8153-55-075	5.5 x 75.0 mm Cancellous Locking Screw
8153-55-080	5.5 x 80.0 mm Cancellous Locking Screw
8153-55-085	5.5 x 85.0 mm Cancellous Locking Screw
8153-55-090	5.5 x 90.0 mm Cancellous Locking Screw
8153-55-095	5.5 x 95.0 mm Cancellous Locking Screw
8153-55-100	5.5 x 100.0 mm Cancellous Locking Screw

Screws

Screws

Non Sterile	Description
8153-08-025	8.0 x 25.0 mm Cannulated Cancellous Screw
8153-08-035	8.0 x 35.0 mm Cannulated Cancellous Screw
8153-08-050	8.0 x 50.0 mm Cannulated Cancellous Screw
8153-08-055	8.0 x 55.0 mm Cannulated Cancellous Screw
8153-08-060	8.0 x 60.0 mm Cannulated Cancellous Screw
8153-08-065	8.0 x 65.0 mm Cannulated Cancellous Screw
8153-08-070	8.0 x 70.0 mm Cannulated Cancellous Screw
8153-08-075	8.0 x 75.0 mm Cannulated Cancellous Screw
8153-08-080	8.0 x 80.0 mm Cannulated Cancellous Screw
8153-08-085	8.0 x 85.0 mm Cannulated Cancellous Screw
8153-08-090	8.0 x 90.0 mm Cannulated Cancellous Screw
8150-45-508	4.5 x 08.0 mm Cortical Locking Screw
8150-45-510	4.5 x 10.0 mm Cortical Locking Screw
8150-45-512	4.5 x 12.0 mm Cortical Locking Screw
8150-45-514	4.5 x 14.0 mm Cortical Locking Screw
8150-45-516	4.5 x 16.0 mm Cortical Locking Screw
8150-45-520	4.5 x 20.0 mm Cortical Locking Screw
8150-45-526	4.5 x 26.0 mm Cortical Locking Screw
8150-45-528	4.5 x 28.0 mm Cortical Locking Screw
8150-45-530	4.5 x 30.0 mm Cortical Locking Screw
8150-45-532	4.5 x 32.0 mm Cortical Locking Screw
8150-45-534	4.5 x 34.0 mm Cortical Locking Screw
8150-45-536	4.5 x 36.0 mm Cortical Locking Screw
8150-45-538	4.5 x 38.0 mm Cortical Locking Screw
8150-45-540	4.5 x 40.0 mm Cortical Locking Screw
8150-45-542	4.5 x 42.0 mm Cortical Locking Screw
8150-45-545	4.5 x 45.0 mm Cortical Locking Screw
8150-45-550	4.5 x 50.0 mm Cortical Locking Screw
8150-45-555	4.5 x 55.0 mm Cortical Locking Screw
8150-45-560	4.5 x 60.0 mm Cortical Locking Screw

Screws and Single Use Instruments

Screws

Non Sterile	Description
8157-45-014	4.5 x 14.0 mm Cortical Non-Locking Screw
8157-45-016	4.5 x 16.0 mm Cortical Non-Locking Screw
8157-45-018	4.5 x 18.0 mm Cortical Non-Locking Screw
8157-45-020	4.5 x 20.0 mm Cortical Non-Locking Screw
8157-45-022	4.5 x 22.0 mm Cortical Non-Locking Screw
8157-45-024	4.5 x 24.0 mm Cortical Non-Locking Screw
8157-45-026	4.5 x 26.0 mm Cortical Non-Locking Screw
8157-45-028	4.5 x 28.0 mm Cortical Non-Locking Screw
8157-45-030	4.5 x 30.0 mm Cortical Non-Locking Screw
8157-45-032	4.5 x 32.0 mm Cortical Non-Locking Screw
8157-45-034	4.5 x 34.0 mm Cortical Non-Locking Screw
8157-45-036	4.5 x 36.0 mm Cortical Non-Locking Screw
8157-45-038	4.5 x 38.0 mm Cortical Non-Locking Screw
8157-45-040	4.5 x 40.0 mm Cortical Non-Locking Screw
8157-45-042	4.5 x 42.0 mm Cortical Non-Locking Screw
8157-45-044	4.5 x 44.0 mm Cortical Non-Locking Screw
8157-45-046	4.5 x 46.0 mm Cortical Non-Locking Screw
8157-45-048	4.5 x 48.0 mm Cortical Non-Locking Screw
8157-45-050	4.5 x 50.0 mm Cortical Non-Locking Screw
8157-45-052	4.5 x 52.0 mm Cortical Non-Locking Screw
8157-45-054	4.5 x 54.0 mm Cortical Non-Locking Screw
8157-45-056	4.5 x 56.0 mm Cortical Non-Locking Screw
8157-45-058	4.5 x 58.0 mm Cortical Non-Locking Screw
8157-45-060	4.5 x 60.0 mm Cortical Non-Locking Screw
8157-45-065	4.5 x 65.0 mm Cortical Non-Locking Screw

Disposables

Order Code	Description
8291-32-009	3.2 mm Guide Pin
2141-23-100	5.5 mm Cannulated Drill Bit
2141-13-132	3.2 mm Calibrated Drill Bit
2141-14-138	3.8 mm Calibrated Drill Bit
2141-15-100	4.5 mm Drill Bit
8295-16-150	K-Wire, 6 mm, 6in
2141-16-200	4.5 mm Non-Locking Cortical Tap
2141-16-245	4.5 mm Locking Cortical Tap

Instruments and Cases

Instruments

Order Code	Description
2141-01-000	Intra-Operative Femoral Template
14115	3.2 mm Guide Pin Depth Gauge
2141-19-000	Femoral Bone Clamp
2141-21-000	5.0 mm Cannulated Screwdriver
2141-03-000	3.2 mm Pin Guide
2141-22-000	Cannulated T-Handle
214106-001	Percutaneous Trocar
2141-06-003	Percutaneous Sheath
2141-07-138	3.8 mm Threaded Drill Guide
2141-08-001	Anchor Bolt
2141-09-001	Anchor Bolt Nut
2141-10-100	Universal Depth Gauge
2141-11-001	4.5 mm Percutaneous Screwdriver
2141-17-001	4.5 Nm Torque Driver
2141-24-000	Ratchet Screwdriver Handle
8242-19-000	Large Fragment Screwdriver Shank
2274-32-000	Hudson T-Handle
1919	X-Large Pe.R.I.™ Tong
2141-26-135	3.5 mm Hex Extractor, Long
2141-26-035	3.5 mm Hex Extractor
2141-26-025	2.5 mm Hex Extractor
2141-02-012	Femoral Target Guide
2141-02-018	Femoral Target Guide (18 hole)
2141-02-000	Femoral Handle
2141-02-001	Connecting Screw

Instrument Cases

Order Code	Description
8299-13-100	Instrument Case
8299-13-200	Screw Case

Notes