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POLYAX™

Proximal Tibial
Locked Plating System

Product Rationale
& Surgical Technique

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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, or variable-angle locking and non-locking screw options. The result is stable fracture fixation adaptable to suit 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 compared to titanium alloy, 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

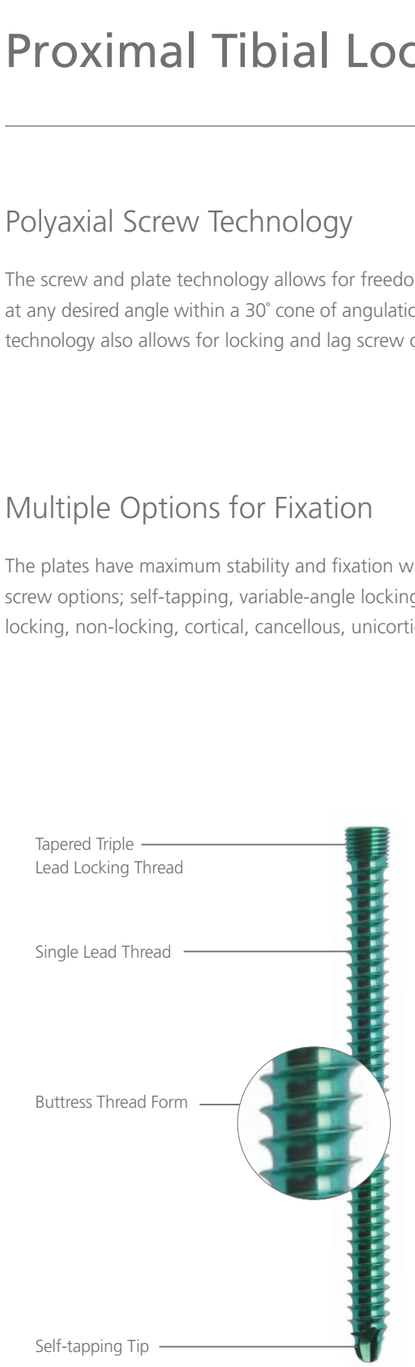
Proximal Tibial Locked Plating System

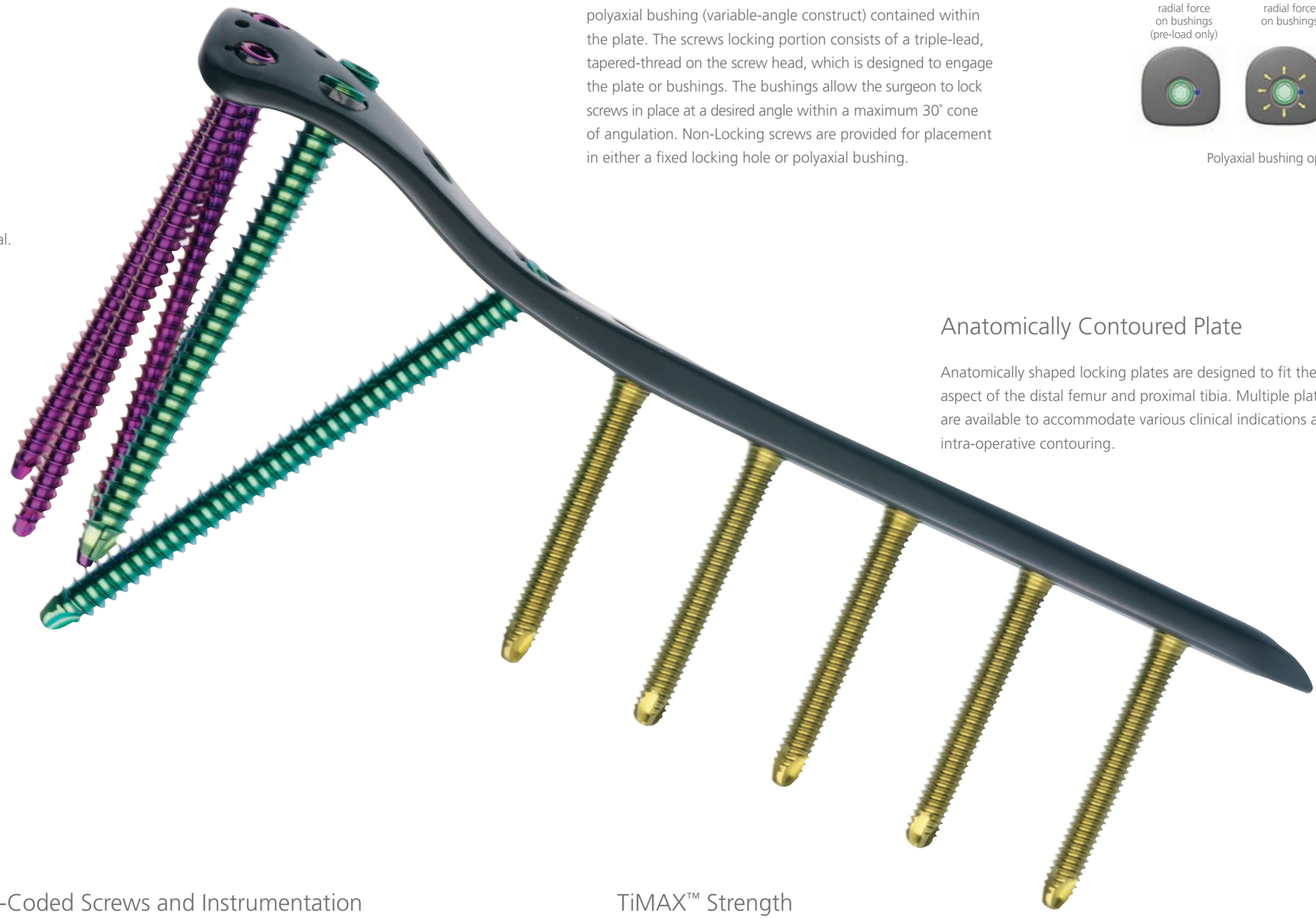
Polyaxial Screw Technology

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

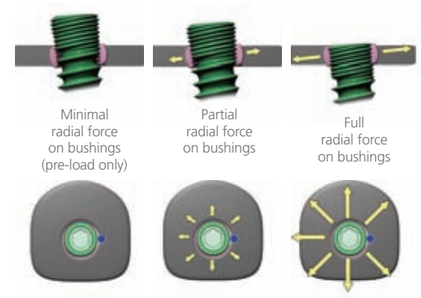
The plates have maximum stability and fixation with multiple screw options; self-tapping, variable-angle locking, fixed-angle locking, non-locking, cortical, cancellous, unicortical and bicortical.





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 surgery.

TiMAX™ Strength

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

Locking Options

The most proximal fixation of the tibial POLYAX™ Locked Plating System construct includes a row of three 4.0 mm polyaxial bushings. Slightly distal to the 4.0 mm holes is a triangular arrangement of three 5.5 mm polyaxial bushings in the head / neck area of the plate. The distal plate stem provides fixed-locked screw holes for 4.5 mm locking or 4.5 mm non-locking screws. Plates are available in lengths of 2, 5, 8, 11 and 14 holes and four K-wire holes are included in the plate for optional intra-operative temporary fixation.

A **5.5 mm Locking Cancellous Screw**

- 25-100 mm in 5 mm increments
- Self-tapping
- 5.5 mm Polyaxial Bushings
- Common Screw Case

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

- 40-100 mm in 5 mm increments
- Self-tapping
- 5.5 mm Polyaxial Bushings
- Common Screw Case

C **4.0 mm Locking Cancellous Screw**

- 50-100 mm in 5 mm increments
- Self-tapping
- 4.0 mm Polyaxial Bushings
- Tibial Case

D **4.0 mm Non-Locking Lag Cancellous Screw**

- 50-100 mm in 5 mm increments
- 4.0 mm Polyaxial Bushings
- Tibial Case

E **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
- Shaft holes
- Common Screw Case

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

- 14-60 mm in 2 mm increments, 65 mm, 70 mm
- Self-tapping
- Shaft holes
- 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 Tibial 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).

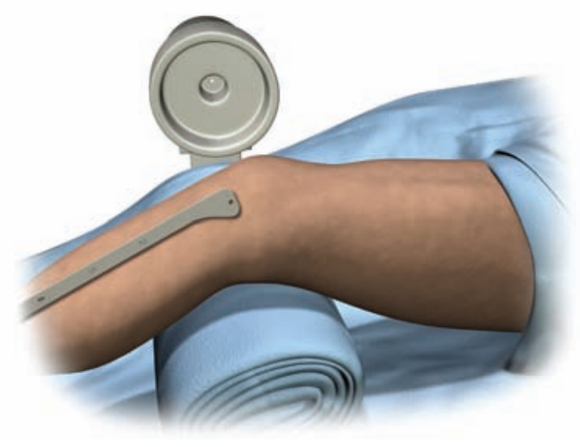


Figure 2

Incision

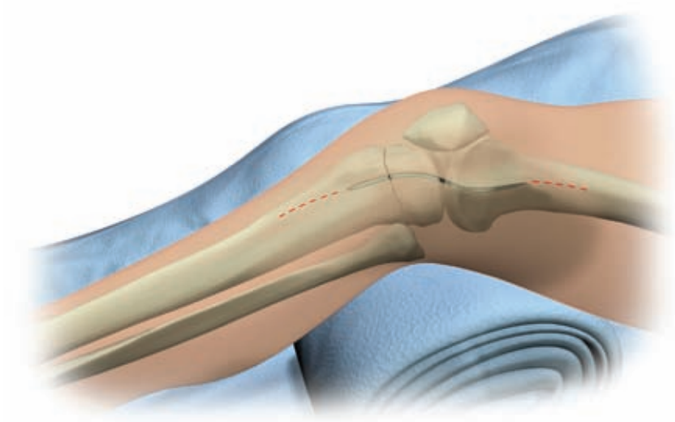


Figure 3

For fractures with relatively simple intra-articular components and extra-articular proximal tibial fractures, make an s-shaped incision centred on Gerdy's tubercle (Figure 3).

Figure 4

For more complicated intra-articular fractures where direct visualisation of fragments is necessary, two incision options exist:

1. Extend the S-shaped incision in Figure 3 proximally and perform a formal submeniscal arthrotomy.

2. Make an antero-lateral incision and perform a formal submeniscal arthrotomy (Figure 4). For elderly patients, especially those who may require knee arthroplasty at a later date, a more anterior incision is preferred. It is critical, regardless of surgical approach, that soft tissues are healed prior to surgery and that full- thickness flaps and gentle soft tissue handling techniques are used.

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. 4.0 mm Partially Threaded Non-Locking Screws can be used in any of the three 4.0 polyaxial bushings in the head of the plate to reduce an intercondylar split. Follow the technique for the 4.0 mm Locking Screws found on pages 12–13 when using 4.0 mm Non-Locking Screws. 5.5 mm partially threaded Non-Locking Screws can be placed in any of the 5.5 mm polyaxial bushings in the head / neck of the plate to aid in fracture reduction. Follow the technique found on pages 14–17 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 along the lateral aspect of the tibia (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 proximal end of the plate along the lateral tibia, verifying the position with A/P and lateral fluoroscopic views of the knee. Assure appropriate alignment of the plateau with the proximal end of the plate. Place the plate approximately 2 mm distal to the joint line (Figure 7). Apply gentle traction to the limb and grossly realign the tibia at this time.

Tip: The POLYAX™ tibial plates are precontoured to the lateral tibia and sit more anteriorly on the lateral aspect of the lateral tibial plateau and approximately 2 mm from the joint line. The plates are designed to allow subchondral fixation though the plate allowing very proximal fixation while minimising potential loss of reduction of the articular surface.

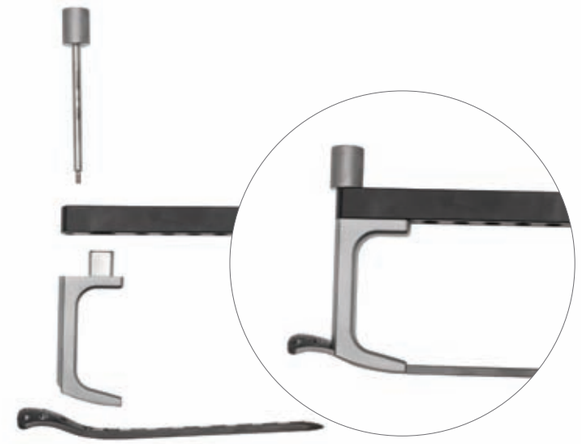


Figure 5

Assemble the selected Plate, Tibial Target Guide, Tibial Handle and Tibial Connecting Screw on the back table (Figure 5). Orient the Tibial 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

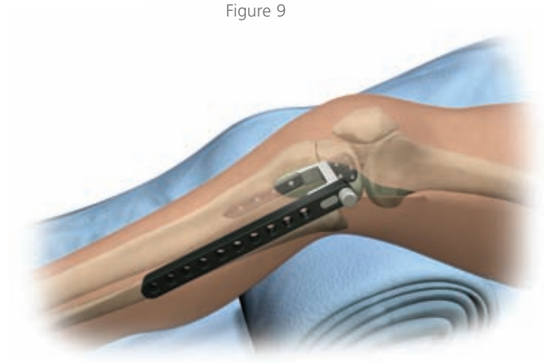


Figure 10

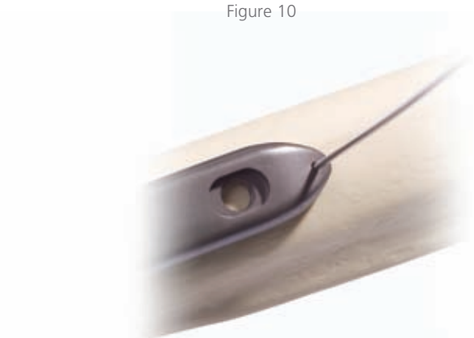


Figure 11

Obtain preliminary plate fixation to the proximal tibia 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 three small holes in the head of the plate and check placement under fluoroscopy (Figure 9).

Tip: After internal fixation is complete, the lateral meniscus, if torn or detached, can be sutured to the proximal K-wire holes in the POLYAX™ tibial plate.

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 tibia. Ensure alignment using A/P and lateral fluoroscopic views (Figure 10).

The distal 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 distal tip of the plate (Figure 11).

3.2 mm Guide Pin Placement

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

Tibial Bone Clamp

Under fluoroscopy, identify the mid-portion of the plate. Make a small incision on the lateral calf just anterior to the Target Guide. Spread the soft tissue down to the bone. Insert the Tibial 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 12).

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.

Remove the Trocar and insert the Anchor Bolt through the Percutaneous Sheath (Figure 13). 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 14). To achieve varus-valgus correction, advance the nut towards the sheath and monitoring progress under fluoroscopy, continue tightening the anchor bolt nut until the desired reduction is achieved.

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 18-19.

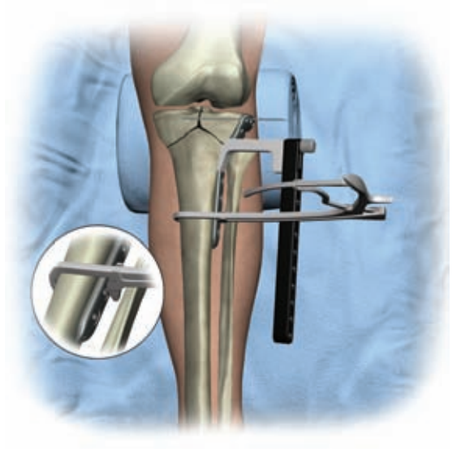


Figure 12

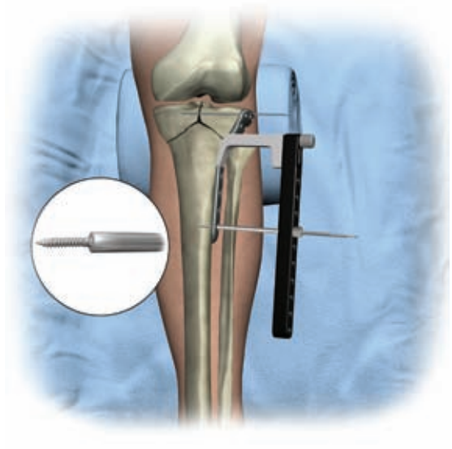


Figure 13

Figure 14

4.0 mm Cancellous Locking and Non-Locking Screws

Figure 15

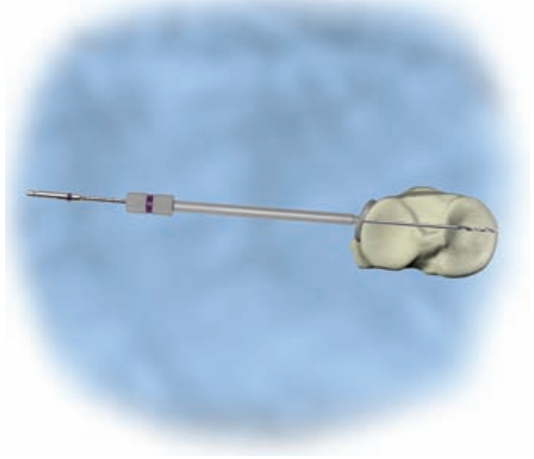


Figure 16

Figure 17

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

4.0 mm Non-Locking Lag Screws are provided in the set for obtaining articular reduction through the plate. Non-locking Screws must be placed prior to the insertion of any Locking Screws.

Placement of 4.0 mm Locking Screws is outlined in the following pages. Follow the same technique for the 4.0 mm Non-Locking Screws.

Thread the 2.5 mm Threaded Drill Guide into one of the three polyaxial bushings in the head of the plate (Figure 15). 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: When placing the 4.0 mm Screws, select the hole of most critical screw placement first. Dispersing the screws to support the articular surface and provide optimum fixation is recommended.

Using the 2.5 mm Calibrated Drill Bit, drill through the bushing drill guide across the plateau (Figure 16).

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 17).

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, insert the Universal Depth Gauge through the Threaded Drill Guide, reading the depth from the top of the guide (Figure 18).

With the Threaded Drill Guide removed, insert the appropriate length 4.0 mm Cancellous Screw using the Small Fragment Screwdriver Shank on the Ratchet Screwdriver Handle (Figure 19). If using a Locking Screw, stop when the locking threads in the screw head engage the plate and switch to the 2.0 Nm Torque-Limiting Screwdriver. If using a Non-Locking Screw, tighten the screw in the plate hole until desired reduction is achieved. **The use of a power screwdriver is not recommended for insertion of locking screws.**

Perform final tightening of the 4.0 mm Locking Screw with the 2.0 Nm Torque-Limiting Screwdriver. A palpable, audible click will be felt and heard when the screw is locked into the plate (Figure 20).

Repeat the steps on pages 12-13 as necessary for additional 4.0 mm Cancellous Screw placement (Figure 21).

Figure 18

Figure 19

Figure 20

Figure 21

5.5 mm Cancellous Locking and Non-Locking Screws

Figure 22

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

Thread the 3.8 mm Threaded Drill Guide into one of the three polyaxial bushings in the head / neck 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: To achieve full 30-degree angulation in the two proximal 5.5 mm bushings, the target guide must be removed. The distal 5.5 mm screw in the neck of the plate can only be accessed after the percutaneous guide has been removed. Therefore, placing the three 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 tibial plateau (Figure 23).

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.

Figure 24

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 25

Figure 26

Figure 27

With the 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, gold-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.

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 14-17 as necessary for additional 5.5 mm Cancellous Screw Placement (Figure 28).

Figure 28
Place additional 5.5 mm cancellous screws.

4.5 mm Non-Locking Shaft Screws

Figure 29

Figure 30

Figure 31

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 plate to the bone 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 29).

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 30).

Insert the 3.8 mm Threaded Drill Guide through the sheath and thread the guide into the plate hole (Figure 31).

Drill through the 3.8 mm Threaded Drill Guide using the 3.2 mm Calibrated Drill Bit. Use the 4.5 mm Cortical 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 if it is desirable to have the tapping flutes extend past the far cortex (Figure 32).

Figure 32
Drill and determine screw length from calibrated drill bit.

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 33).

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

Figure 33
Insert 4.5 mm non-locking screw.

4.5 mm Locking Shaft Screws

Figure 34

Figure 35

Figure 36

Use 4.5 mm Locking Shaft 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 proximal screws and at least four distal 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 34).

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 (Figure 35).

Remove the trocar. Insert the 3.8 mm Threaded Drill Guide through the sheath and thread the guide into the plate hole (Figure 36).

Drill through the 3.8 mm Threaded Drill Guide using the 3.8 mm Calibrated Drill Bit. Use the 4.5 mm Cortical 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 37). 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.

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

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

Figure 37

Figure 38

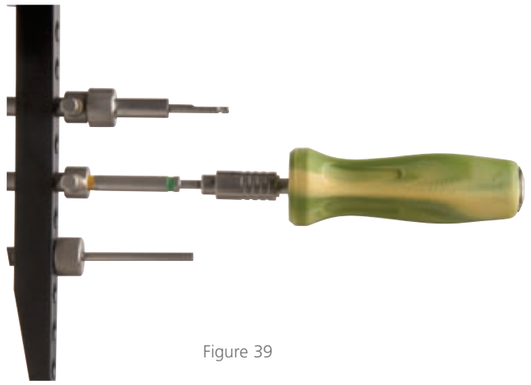


Figure 39

Figure 40

Figure 41

Perform final tightening of the 4.5 mm Locking Screws with the 4.5 Nm Torque-Limiting Screwdriver (Figure 39). 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.

Remove the target assembly, gaining access to the remaining proximal polyaxial holes and the most proximal threaded shaft hole. Follow the previously detailed steps for placement of the 5.5 mm Locking Screws in the head / neck of the plate and 4.5 mm Locking Screws in the shaft of the plate as necessary (Figures 40 and 41).

Close the wound in layers over a suction drain. For proximal 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

Tibial Plates

Sterile	Description		
8141-32-002	2 Hole	Right	99.6 mm
8141-32-005	5 Hole	Right	153.7 mm
8141-32-008	8 Hole	Right	207.8 mm
8141-32-011	11 Hole	Right	261.9 mm
8141-32-014	14 Hole	Right	316.0 mm
8141-33-002	2 Hole	Left	99.6 mm
8141-33-005	5 Hole	Left	153.7 mm
8141-33-008	8 Hole	Left	207.8 mm
8141-33-011	11 Hole	Left	261.9 mm
8141-33-014	14 Hole	Left	316.0 mm

Screws

Non Sterile	Description
8153-04-050	4.0 x 50.0 mm Cancellous Locking Screw
8153-04-055	4.0 x 55.0 mm Cancellous Locking Screw
8153-04-060	4.0 x 60.0 mm Cancellous Locking Screw
8153-04-065	4.0 x 65.0 mm Cancellous Locking Screw
8153-04-070	4.0 x 70.0 mm Cancellous Locking Screw
8153-04-075	4.0 x 75.0 mm Cancellous Locking Screw
8153-04-080	4.0 x 80.0 mm Cancellous Locking Screw
8153-04-085	4.0 x 85.0 mm Cancellous Locking Screw
8153-04-090	4.0 x 90.0 mm Cancellous Locking Screw
8153-04-095	4.0 x 95.0 mm Cancellous Locking Screw
8153-04-100	4.0 x 100.0 mm Cancellous Locking Screw
8155-40-050	4.0 x 50.0 mm Cancellous Non-Locking Screw
8155-40-055	4.0 x 55.0 mm Cancellous Non-Locking Screw
8155-40-060	4.0 x 60.0 mm Cancellous Non-Locking Screw
8155-40-065	4.0 x 65.0 mm Cancellous Non-Locking Screw
8155-40-070	4.0 x 70.0 mm Cancellous Non-Locking Screw
8155-40-075	4.0 x 75.0 mm Cancellous Non-Locking Screw
8155-40-080	4.0 x 80.0 mm Cancellous Non-Locking Screw
8155-40-085	4.0 x 85.0 mm Cancellous Non-Locking Screw
8155-40-090	4.0 x 90.0 mm Cancellous Non-Locking Screw
8155-40-095	4.0 x 95.0 mm Cancellous Non-Locking Screw
8155-40-100	4.0 x 100.0 mm Cancellous Non-Locking Screw

Screws

Screws

Non Sterile	Description
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

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

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

Screws and Single Use Instruments

Screws

Non Sterile	Description
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

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

Disposables

Order Code	Description
2141-29-100	2.5 mm Calibrated Drill Bit
8291-31-120	2.9 mm 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	1.6 mm K-wire, 6 in
8241-61-220	4.0 mm Cancellous Tap
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
2141-01-001	Tibial Template
2141-07-029	2.5 mm Bushing Drill Guide
2141-18-001	2.0 Nm Torque-limiting Screwdriver
2141-20-000	Tibial Bone Clamp
8241-00-120	Small Fragment Depth Gauge
8241-57-071	3.5 mm Screwdriver Shank
2141-29-400	2.9 / 4.0 mm Drill Guide
2141-06-001	Percutaneous Trocar
2141-06-003	Percutaneous Sheath
2141-06-045	4.5 mm Percutaneous Drill Guide
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
2141-26-025	2.5 mm Hex Extractor
2141-26-035	3.5 mm Hex Extractor
2141-26-135	3.5 mm Hex Extractor, Long
2141-45-014	Tibial Target Guide
2141-04-000	Tibial Handle (Right)
2141-05-000	Tibial Handle (Left)
2141-45-001	Connecting Screw

Instrument Cases

Order Code	Description
8299-13-100	Tibial Case
8299-13-200	Common Screw Case

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