

Biomet® Peritrochanteric Nail (PTN) System

Surgical Technique



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Introduction

The **Biomet Peritrochanteric Nail (PTN)** consists of an intramedullary nail and lag screw indicated for a variety of hip fractures. Its primary features include the following:

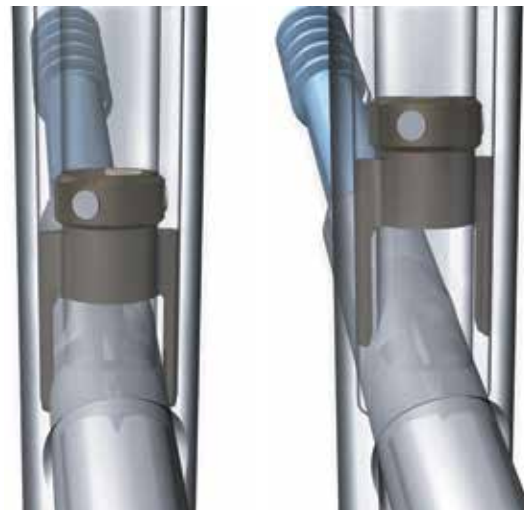
- Setscrew pre-assembled within nail
- Two Telescoping lag screw options (keyed and keyless)
- Two Solid lag screw options (fixed and sliding)
- Small proximal outer diameter (15.9mm)
- 6° proximal bend
- Closer match to anatomic bow of femur (long nail) – 1.8 meter radius anterior bow
- Built-in anteversion (long nail)
- Full range of nail sizing in long (Left and Right), short and extra short (universal) lengths
- Long IM Nails: lengths ranging from 24 – 48cm in 2cm increments, 1.8 meter anterior bow with built-in anteversion and two distal holes (11mm distal outer diameter)
- Short IM Nails: 22cm in overall length with one distal locking hole (11mm and 13mm distal outer diameter)
- Extra Short: 17cm in overall length with one distal locking hole (11mm and 13mm distal outer diameter)
- Telescoping Lag Screws: 11mm keyed and keyless ranging from 65 – 120mm in 5.0mm increments
- Solid Lag Screws: 11mm sliding and fixed ranging from 65 – 120mm in 5.0mm increments

Telescoping lag screws are indicated for intertrochanteric fractures in which fracture collapse is expected, while preventing lag screw protrusion into the lateral thigh.

Sliding solid lag screws allow for fracture collapse and are similar to 1st and 2nd generation trochanteric nailing systems.

Fixed solid lag screws will prevent any slide or fracture collapse. Indications are for reverse obliquity/subtrochanteric fractures and intertrochanteric fractures in younger individuals where fracture collapse or shortening is to be prevented.

All implantable materials are composed of titanium alloy (Ti 6AL 4V) for its lightweight strength and concomitant low modulus of elasticity.



Indications and Contraindications

INDICATIONS

Biomet® Peritrochanteric Nail (PTN) System

Biomet® Peritrochanteric Nail (PTN) System is indicated for the treatment of fractures of the femur including: non-comminuted and comminuted midshaft fracture, subtrochanteric fracture, distal third fracture, combination fractures of the shaft and neck, intertrochanteric fracture, combination intertrochanteric and subtrochanteric fractures. The Biomet® Peritrochanteric Nail (PTN) System is also indicated osteotomies, reconstructive procedures following tumor resection, revision procedures where other treatments or devices have failed, and arthrodesis. **Not for sale in Canada.**

CONTRAINDICATIONS

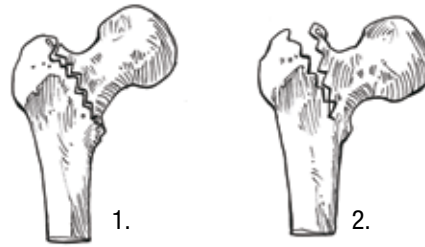
1. Infection.
2. Patient conditions including blood supply limitations, and insufficient quantity or quality of bone.
3. Patients with mental or neurologic conditions who are unwilling or incapable of following postoperative care instructions.
4. Foreign body sensitivity. Where material sensitivity is suspected, testing is to be completed prior to implantation of the device.



OTA Femoral Fracture Classifications

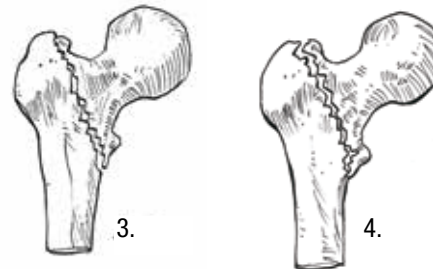
Simple (Two-Fragment) Peritrochanteric Area Fractures

1. Fractures along the intertrochanteric line
2. Fractures through the greater trochanter
3. Fractures below the lesser trochanter



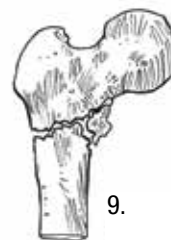
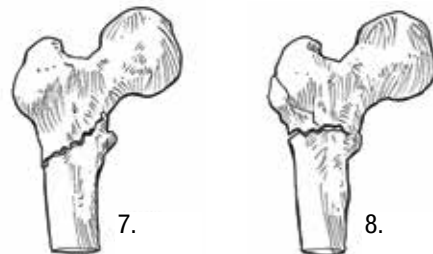
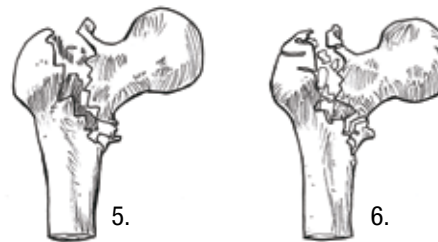
Multifragmentary Peritrochanteric Fractures

4. With one intermediate fragment (lesser trochanter detachment)
5. With two intermediate fragments
6. With more than two intermediate fragments



Intertrochanteric Fractures

7. Simple, oblique
8. Simple, transverse
9. With a medial fragment



Surgical Technique

1. Patient Positioning

The patient is positioned supine on a fracture table with the affected leg in a neutral position or slightly adducted. The unaffected leg is flexed at the hip and knee, positioned on an additional leg holder to allow image visualization of the proximal femur. Alternatively, the uninjured extremity can be abducted with the hip and knee extended.

Intertrochanteric hip fractures can generally be reduced using gentle longitudinal traction with the leg externally rotated followed by internal rotation. The surgeon must assess the fracture reduction before prepping the patient and assure that unobstructive biplanar radiographic visualization of the entire proximal femur, including the hip joint, is obtainable. Inadequate visualization of the entire proximal femur can result in inappropriate lag screw length or positioning.



2. Draping

The patient is draped in a similar fashion as for standard hip fracture fixation; one should allow skin exposure proximally to the iliac crest and distally below the knee.



3. Skin Inclusion

A straight 1-2cm lateral incision is made approximately 3-4cm proximal to the tip of the greater trochanter; the gluteus maximus muscle is dissected in line with its fibers.



Surgical Technique (Continued)

4. Entry Point

The entry point is at the tip of the greater trochanter, half way between its anterior and posterior extent. A cannulated curved awl can be used to open the medullary canal, carefully assessing the position of the awl using biplanar image intensification.

Alternatively, a 3.2mm K-wire and a cannulated one step conical reamer to enter and to prepare the proximal femur.



5. Determination Of Nail Length

Once the medullary canal has been opened, a bead tip guide wire (3.0mm x 98cm) is inserted into the medullary canal. This may be accomplished by sliding it down through the curved cannulated awl, which was used to open the medullary canal, or by sliding it down through the orifice created by entry and removal of a 3.2mm K-wire.

For long nails, the guide wire should be inserted to the level of the metaphyseal scar, at the proximal aspect of the patella. The guide wire should be centered in the distal femur on both the AP and lateral planes.

Nail length is determined using a second guide wire technique. The second guide wire of identical length is placed along side the implanted guide wire to the level of the trochanteric tip. The portion of the second guide wire that extends beyond the end of the implanted wire is the length of needed nail.

For extra short and short nails, length determination is not required, since these nails are 17cm and 22cm respectively in overall length.



Surgical Technique (Continued)

6. Canal Reaming

The proximal aspect of the femoral canal should be opened to 17mm, which is accomplished by sliding the one step reamer over the 3.0mm x 98cm bead tip guide wire and reaming the first 8cm.

The reaming of the subtrochanteric and diaphyseal regions of the femoral cavity may not be necessary, particularly in elderly patients with wide medullary canals.

However, in younger patients it may be necessary to ream the femoral isthmus - the narrowest portion of the medullary canal - to accommodate the **PTN**. Therefore, flexible cannulated reamers are used to slide down over the 3.0mm x 98cm bead tip guide wire for reaming to enlarge the medullary canal. The isthmus should be reamed to 12mm, since the distal aspect of the nail is 11mm in outer diameter.



7. Assembly Of The Radiolucent Targeting Outrigger

The proximal aspect of the Peritrochanteric Nail (**PTN**) is abutted to the keyed distal aspect of the targeting outrigger nose (metal). The connecting bolt is fed through the proximal end of the targeting device nose and into the proximal threaded hole of the **PTN**.



The 8.0mm hexagonal male T-wrench is used to tighten the **PTN** to the targeting device.

8. Alignment Check

Before proceeding, check that the connecting bolt is fully tightened to the **PTN**. Also, check the alignment of all bushings on targeting the outrigger assembly to the **PTN**.



Surgical Technique (Continued)

9. PTN Insertion

There is no need to exchange the guide wire prior to nail insertion. The Biomet Peritrochanteric Nail is inserted over the guide wire and into the medullary canal, by hand.

Once inserted, a slap hammer adapter and/or slap hammer may be used to fully insert the nail, if preferred. **Do not directly impact the Radiolucent Targeting Outrigger with any type of mallet. This could damage the outrigger and cause misalignment of the PTN. Utilize the slap hammer adapter if impacting is desired.**

The nail is inserted until fluoroscopy helps discern that the lag screw centers in the femoral head. Once the lag screw position is determined, the bead tipped guide wire is removed.

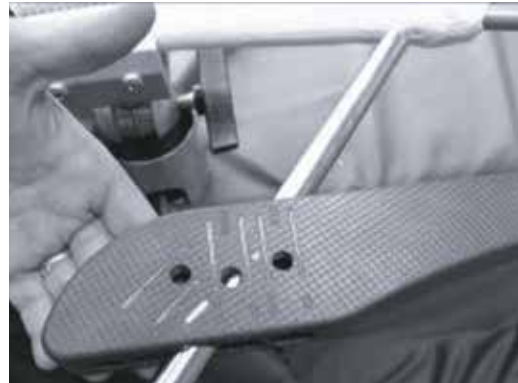


10. Lag Screw Insertion

After the appropriate incision has been made, the soft tissue sleeve and trocar is advanced through the targeting outrigger to the bone.

The trocar is removed. The soft tissue sleeve is impacted to the lateral cortex of the femur and secured to the driver with a setscrew.

It is important that the soft tissue sleeve abuts the lateral cortex, since lag screw length is measured from the end of the soft tissue sleeve to the tip of the guide pin with a measuring gauge.



Surgical Technique (Continued)

The reamer and K-wire sleeves are inserted through the soft tissue sleeve.

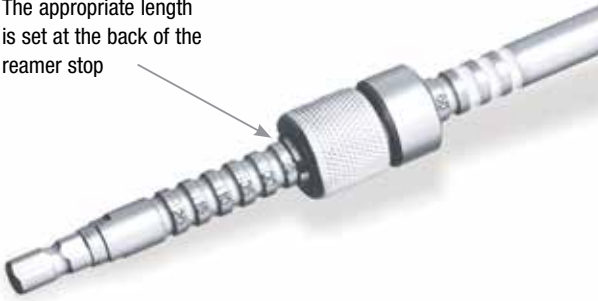
The 3.2mm K-wire is inserted through the K-wire sleeve and advanced to within 5.0mm of the subchondral bone of the femoral head. The K-wire must be centered in the femoral head in both the A/P and lateral planes.



After establishing accurate placement of the K-wire, the lag screw measuring gauge is used to measure the proper lag screw length.

The lag screw length measurement is set with an adjustable stop on the adjustable lag screw reamer.

The appropriate length is set at the back of the reamer stop



Surgical Technique (Continued)

The K-wire sleeve is removed and the lag screw reamer is passed over the K-wire (3.2mm x 46cm) through the drill sleeve, until the reamer stop comes into contact with the drill sleeve. The image intensifier should also be used while reaming to monitor depth of penetration.

If desired, a tap may be utilized. The stop mechanism on the tap is also set to the appropriately measured lag screw length.



The lag screw is assembled to the lag screwdriver. The lag screw must be firmly attached to the lag screwdriver via the connector. If compression is desired, the compression nut should be affixed to the inserter. When using the telescoping lag screw, the ratcheting T-handle can be used, but with the solid lag screw, the fixed T-handle must be used. Once assembled, the lag screw is inserted through the soft tissue sleeve and advanced into the femoral head.



The ending position of the lag screw should be checked with an image intensifier



Surgical Technique (Continued)

11. Lag Screw Fixation

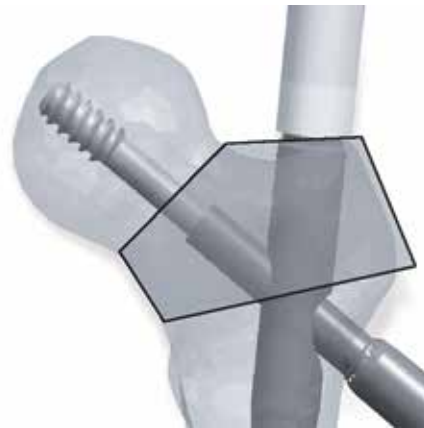
If either solid lag screw is implanted, the FIXED modular T-handle of the lag screw driver/connector must finish either parallel or perpendicular to the target arm, so the forked setscrew engages the flats of the solid lag screw shaft.

Leave the lag screw inserter/connector in position, so that adjustments can be made to align the flats of the lag screw for complete engagement of the setscrew. If the T-handle is not perpendicular or parallel to the target arm, then it must be turned until it reaches its required position. This measure is not required for the telescoping lag screws.



Compress by advancing the compression screw on the lag screw inserter against the soft tissue sleeve after the head of the lag screw is positioned

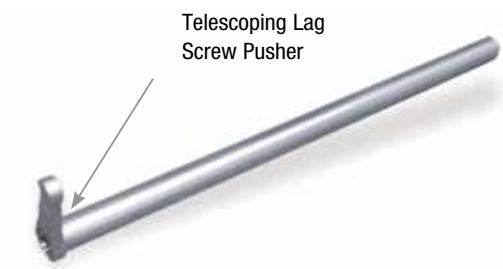
Using the lag screw insertion/compression nut yields optimal compression capability. The lag screw type and length chosen should be reduced in size depending on the required amount of compression. Compression of neck/intertrochanteric fracture site is achieved by using a shorter lag screw and continuing to advance the threads, after the lip on the telescoping lag screw has been seated against the lateral cortex.



Compression of neck /intertrochanteric fracture site is achieved by using a shorter lag screw and continuing to advance the threads, after the lip on the telescoping lag screw has seated against the lateral cortex

For telescoping and solid lag screws, the lag screw should be advanced through the neck and into the femoral head, until the proximal lip of the atraumatic soft tissue sleeve abuts the lateral cortex. If required, the lag screw pusher may be used to manually advance the telescoping lag screw, if required.

The flexible 5.0mm hexagonal driver is inserted through the cannulated nail-connecting bolt in the MEDIAL hole of the driver assembly (metal nose) and turned clockwise - until it clicks - to engage the pre-assembled setscrew to the telescoping lag screw atraumatic soft tissue sleeve or solid lag screw shaft.



Disengaged



Engaged



Surgical Technique (Continued)

12. Distal Screw Locking Of The Extra Short And Short PTN

The lag screw driver is removed and the soft tissue sleeves inserted for distal locking screw placement.

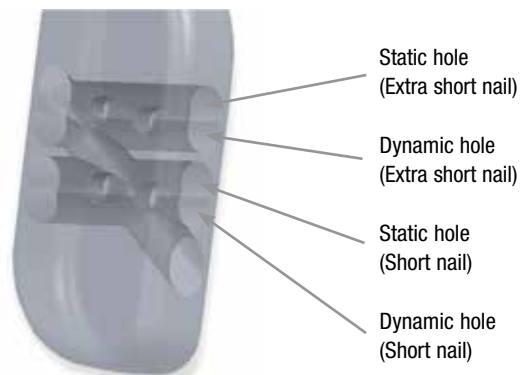
The extra short and short **PTN** have a single oblong hole distally for either static or dynamic locking. Static locking is achieved by placing a 5.0mm screw in the proximal portion of the oblong hole. Conversely, dynamic locking is achieved by placing a 5.0mm screw in the distal portion of the oblong hole. The targeting outrigger assembly offers provisions for both means of distal locking fixation via drill sleeve and calibrated 4.3mm drill bit

The targeting sleeve of the targeting outrigger is selected for the required position of static or dynamic locking capability. The assembled distal locking drill guide is advanced through the targeting outrigger to the skin.

Once the target has been identified, an incision is made and the soft tissue sleeve is advanced to the bone. The trocar is then passed through the soft tissue sleeve and advanced to the bone to determine and to mark the entry point.

The trocar is removed and the drill sleeve is inserted to enable drilling through the bone with a 4.3mm calibrated drill. Screw length may be measured directly off of the 4.3mm calibrated drill bit. Drill through the first cortex and as the second cortex is engaged, read the measurement off of the calibrated drill bit and add 5.0mm to this measurement for the appropriate distal screw length.

The screw head is carefully advanced until it makes direct contact with the cortex. Make sure not to over tighten.



13. Free-Hand Distal Screw Locking Of The Long PTN

A free-hand technique is employed to insert the locking screws into the distal holes of the **PTN**. Rotational alignment must be checked prior to locking the **PTN**.

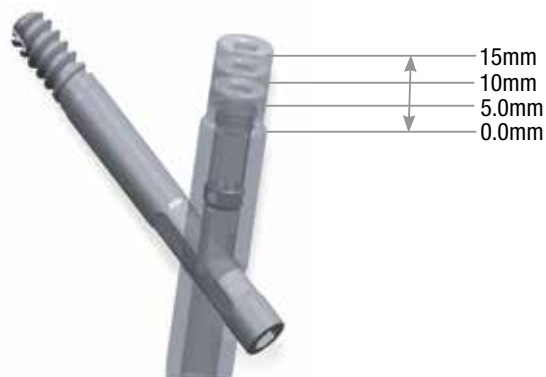
14. End Cap Insertion

One of four different profile end caps may be inserted into the top hole of the **PTN** to prevent bony in-growth. The correct end cap is chosen to make the **PTN** flush with the tip of the greater trochanter. The **PTN** connecting bolt must be removed while the lag screw driver remains in place for the end cap insertion through the targeting outrigger. The end cap may also be inserted by hand after the removal of the targeting device.

The end cap is threaded onto the distal threads of the 5.0mm end cap inserter.

The assembly is passed through the top of the targeting outrigger and down into the top of the **PTN** for definitive tightening.

This may only be performed using the 0mm end cap (Catalog # 29206). All other end caps must be inserted free hand, after the targeting outrigger has been removed.



15. Extraction

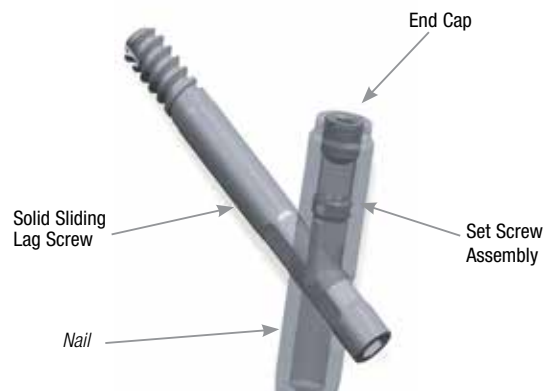
An incision should be made over the proximal end of the nail. If present, the proximal end cap is removed using the 5.0mm inserter. The screw is rotated counter-clockwise until it is removed. Alternatively, a 2.0mm K-wire can be passed through the 5.0mm inserter and into the end cap to facilitate end cap removal.

Loosen the lag screw setscrew completely with the flexible 5.0mm setscrew driver.

Make the appropriate soft tissue incision and remove the lag screw with the lag screw inserter/connector. Alternatively, a 3.2mm K-wire may be inserted through the soft tissue sleeve and the lag screw inserter/connector may be passed over the wire and through the soft tissue sleeve to facilitate lag screw removal.

Incise the skin distally and remove the distal screw with the 3.5mm hex driver.

Using the nail extractor adapter hook or male threaded adapter, connect to the slap hammer and remove the nail from the medullary canal via reverse hammering.



Product Information

End Caps

Catalog #	Implants
29206	End Cap, 0mm
29207	End Cap, 5mm
29208	End Cap, 10mm
29209	End Cap, 15mm

Lag Screws – Telescoping, Keyless

Catalog #	Implants
29212	Lag Screw Assy. Telescoping, Keyless, 65mm
29213	Lag Screw Assy. Telescoping, Keyless, 70mm
29214	Lag Screw Assy. Telescoping, Keyless, 75mm
29215	Lag Screw Assy. Telescoping, Keyless, 80mm
29216	Lag Screw Assy. Telescoping, Keyless, 85mm
29217	Lag Screw Assy. Telescoping, Keyless, 90mm
29218	Lag Screw Assy. Telescoping, Keyless, 95mm
29219	Lag Screw Assy. Telescoping, Keyless, 100mm
29220	Lag Screw Assy. Telescoping, Keyless, 105mm
29221	Lag Screw Assy. Telescoping, Keyless, 110mm
29222	Lag Screw Assy. Telescoping, Keyless, 115mm
29223	Lag Screw Assy. Telescoping, Keyless, 120mm

Lag Screws – Telescoping, Keyed

Catalog #	Implants
29232	Lag Screw Assy. Telescoping, Keyed, 65mm
29233	Lag Screw Assy. Telescoping, Keyed, 70mm
29234	Lag Screw Assy. Telescoping, Keyed, 75mm
29235	Lag Screw Assy. Telescoping, Keyed, 80mm
29236	Lag Screw Assy. Telescoping, Keyed, 85mm
29237	Lag Screw Assy. Telescoping, Keyed, 90mm
29238	Lag Screw Assy. Telescoping, Keyed, 95mm
29239	Lag Screw Assy. Telescoping, Keyed, 100mm
29240	Lag Screw Assy. Telescoping, Keyed, 105mm
29241	Lag Screw Assy. Telescoping, Keyed, 110mm
29242	Lag Screw Assy. Telescoping, Keyed, 115mm
29243	Lag Screw Assy. Telescoping, Keyed, 120mm

Lag Screws – Solid, Fixed

Catalog #	Implants
29252	Lag Screw Assy. Solid, Fixed, 65mm
29253	Lag Screw Assy. Solid, Fixed, 70mm
29254	Lag Screw Assy. Solid, Fixed, 75mm
29255	Lag Screw Assy. Solid, Fixed, 80mm
29256	Lag Screw Assy. Solid, Fixed, 85mm
29257	Lag Screw Assy. Solid, Fixed, 90mm
29258	Lag Screw Assy. Solid, Fixed, 95mm
29259	Lag Screw Assy. Solid, Fixed, 100mm
29260	Lag Screw Assy. Solid, Fixed, 105mm
29261	Lag Screw Assy. Solid, Fixed, 110mm
29262	Lag Screw Assy. Solid, Fixed, 115mm
29263	Lag Screw Assy. Solid, Fixed, 120mm

Lag Screws – Solid, Sliding

Catalog #	Implants
29272	Lag Screw, Solid, Sliding, 65mm
29273	Lag Screw, Solid, Sliding, 70mm
29274	Lag Screw, Solid, Sliding, 75mm
29275	Lag Screw, Solid, Sliding, 80mm
29276	Lag Screw, Solid, Sliding, 85mm
29277	Lag Screw, Solid, Sliding, 90mm
29278	Lag Screw, Solid, Sliding, 95mm
29279	Lag Screw, Solid, Sliding, 100mm
29280	Lag Screw, Solid, Sliding, 105mm
29281	Lag Screw, Solid, Sliding, 110mm
29282	Lag Screw, Solid, Sliding, 115mm
29283	Lag Screw, Solid, Sliding, 120mm

PTN, Long, Left

Catalog #	Implants
28224	PTN, Long, Left, 11mm x 24cm
28226	PTN, Long, Left, 11mm x 26cm
28228	PTN, Long, Left, 11mm x 28cm
28230	PTN, Long, Left, 11mm x 30cm
28232	PTN, Long, Left, 11mm x 32cm
28234	PTN, Long, Left, 11mm x 34cm
28236	PTN, Long, Left, 11mm x 36cm
28238	PTN, Long, Left, 11mm x 38cm
28240	PTN, Long, Left, 11mm x 40cm
28242	PTN, Long, Left, 11mm x 42cm
28244	PTN, Long, Left, 11mm x 44cm
28246	PTN, Long, Left, 11mm x 46cm
28248	PTN, Long, Left, 11mm x 48cm

PTN, Long, Right

Catalog #	Implants
28324	PTN, Long, Right, 11mm x 24cm
28326	PTN, Long, Right, 11mm x 26cm
28328	PTN, Long, Right, 11mm x 28cm
28330	PTN, Long, Right, 11mm x 30cm
28332	PTN, Long, Right, 11mm x 32cm
28334	PTN, Long, Right, 11mm x 34cm
28336	PTN, Long, Right, 11mm x 36cm
28338	PTN, Long, Right, 11mm x 38cm
28340	PTN, Long, Right, 11mm x 40cm
28342	PTN, Long, Right, 11mm x 42cm
28344	PTN, Long, Right, 11mm x 44cm
28346	PTN, Long, Right, 11mm x 46cm
28348	PTN, Long, Right, 11mm x 48cm

PTN, Short, Universal

Catalog #	Implants
28811	PTN, Short, 11mm x 22cm
28813	PTN, Short, 13mm x 22cm

PTN, Extra Short, Universal

Catalog #	Implants
28821	PTN, Extra Short, 11mm x 17cm
28823	PTN, Extra Short, 13mm x 17cm

Cross Locking Screws

Catalog #	Implants
33-345418	5.0mm Hex HD Screw Buttress Full Thread, 20mm
33-345420	5.0mm Hex HD Screw Buttress Full Thread, 25mm
33-345422	5.0mm Hex HD Screw Buttress Full Thread, 30mm
33-345424	5.0mm Hex HD Screw Buttress Full Thread, 35mm
33-345426	5.0mm Hex HD Screw Buttress Full Thread, 40mm
33-345428	5.0mm Hex HD Screw Buttress Full Thread, 45mm
33-345430	5.0mm Hex HD Screw Buttress Full Thread, 50mm
33-345432	5.0mm Hex HD Screw Buttress Full Thread, 55mm
33-345434	5.0mm Hex HD Screw Buttress Full Thread, 60mm
33-345436	5.0mm Hex HD Screw Buttress Full Thread, 65mm
33-345438	5.0mm Hex HD Screw Buttress Full Thread, 70mm
33-345440	5.0mm Hex HD Screw Buttress Full Thread, 75mm
33-345442	5.0mm Hex HD Screw Buttress Full Thread, 80mm
33-345444	5.0mm Hex HD Screw Buttress Full Thread, 85mm
33-345446	5.0mm Hex HD Screw Buttress Full Thread, 90mm
33-345448	5.0mm Hex HD Screw Buttress Full Thread, 95mm
33-345450	5.0mm Hex HD Screw Buttress Full Thread, 100mm
33-345452	5.0mm Hex HD Screw Buttress Full Thread, 105mm
33-345454	5.0mm Hex HD Screw Buttress Full Thread, 110mm

PTN/UniFlex Antegrade

Catalog #	Disposable Instruments
27914	Lag Screw / 3.2mm x 46cm Entry Guide Wire
27922	Nail Guide Wire, Bead Tip (3.0mm x 98cm)
27949	Straight Guide Wire, 3.2mm x 98cm
27961	Calibrated Drill - 4.3mm x 36.5cm
27982	Calibrated Drill - 5.0mm x 36.5cm
27983	Calibrated Drill - 6.2mm x 48.2cm
27984	Crowe Pt. Drill Bit - 4.3mm x 18cm

Product Information (Continued)

Optional Specialty Instruments (PTN)

Catalog #	Instruments
27979	Fracture Reducer
27972	Slap Hammer
475920	X-Ray Scale (Ruler)
27937	Working Channel Soft Tissue Sleeve
27938	Working Channel Soft Tissue Sleeve Trocar
27908	One-Step Reamer, 17mm
27969	Lag Screw Sleeve Pusher
469380	Telescoping Nail Measuring Gauge
03248	Surgical Tray, Specialty Instruments
470342	Diamond Point Awl
476920	Skin Protector
471794	Distal Targeting Awl 4.3mm
471795	Distal Targeting Awl 5.0mm

PTN/UniFlex Antegrade

Catalog #	Femoral Nail Instruments
03138	Surgical Tray Femoral Nail System
27902	Driver Connecting Screw
27903	T-Handle w/Stryker Quick Connect (Non-ratcheting)
27904	T-Handle w/Stryker Quick Connect (Ratcheting)
27913	Wire Pusher
27915	Solid Lag Screw Reamer
27916	Lag Screw Measuring Gauge
27918	Sleeve Thumb Screw
27919	Lag Screw Tap
27920	Wire Holder
27923	Torque Limiting Handle, Straight
27924	Reconstructive Soft Tissue Sleeve
27925	Reconstructive Trocar
27926	Reconstructive Drill Bushing
27927	Reconstructive Wire Bushing
27929	Nail Measuring Gauge
27936	Interlocking Drill Bushing

PTN/UniFlex Antegrade (Continued)

Catalog #	Femoral Nail Instruments
27939	Flexible Reamer Shaft Extension
27940	Flexible Reamer Shaft
27943	Compression Nut
27947	8.0mm Connecting Bolt Driver
27950	Hybrid Trochanteric Driver
27953	Lag Inserter Inner Shaft Assy.
27954	Guide Tube, Trochanteric Lag Screw
27955	Lag Screw Trocar
27956	Guide Bushing, Trochanteric, 3.2mm Guide Pin
27957	Lag Screw Drill Bushing Std
27962	Flexible Hex Driver, 5.0mm
27964	Guide Tube, Trochanteric
27965	Trocar, Cross Locking Screw
27966	Cross Locking Drill Bushing, 4.3mm
27970	Slap Hammer Adaptor
27977	Stryker/AO Power Adaptor
27989	Hall/Stryker Power Adaptor
27990	Lag Screw Inserter
27992	Screw Holding/Driver Assy. (Distal Screw)
27996	5.0mm Inserter Connector
27997	5.0mm Inserter
27999	Curved Cannulated Awl
467534	Next Modular Reamer Head, 8.0mm
467536	Next Modular Reamer Head, 8.5mm
467538	Next Modular Reamer Head, 9.0mm
467540	Next Modular Reamer Head, 9.5mm
467542	Next Modular Reamer Head, 10mm
467544	Next Modular Reamer Head, 10.5mm
467546	Next Modular Reamer Head, 11mm
467548	Next Modular Reamer Head, 11.5mm
467550	Next Modular Reamer Head, 12mm
467552	Next Modular Reamer Head, 12.5mm
467554	Next Modular Reamer Head, 13mm

Further Information

PTN/UniFlex Antegrade (Continued)

Catalog #	Femoral Nail Instruments
467556	Next Modular Reamer Head, 13.5mm
467558	Next Modular Reamer Head, 14mm
467560	Next Modular Reamer Head, 14.5mm
467562	Next Modular Reamer Head, 15mm
467564	Next Modular Reamer Head, 15.5mm
467566	Next Modular Reamer Head, 16mm
467568	Next Modular Reamer Head, 16.5mm
467570	Next Modular Reamer Head, 17mm
471768	Nail Extractor Adaptor
471770	Nail Extractor Hook w/Adaptor
34-513644	Screw Depth Gauge

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