



Tibia & Femur Nails
Ø5mm Screws
Procedure Steps



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Introduction

The CarboFix™ Implants

The **CarboFix™** Tibia & Femur Nails are made of longitudinal continuous Carbon Fiber reinforced Polymer (PEEK).

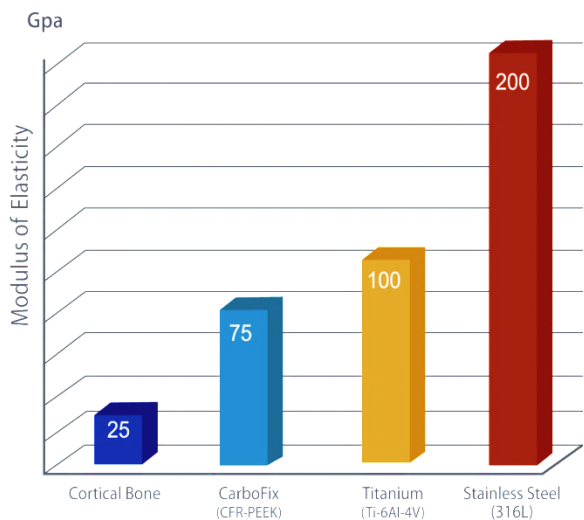
The Carbon Fiber are arranged in a unidirectional longitudinal orientation, as well as in a diagonal orientation, allowing multidirectional strength in all planes.

CarboFix™ is the first implant line to obtain FDA and CE clearance for orthopedic trauma implants made from Carbon Fiber composite material.

The Advantages of CarboFix™ Implants

Modulus of Elasticity

The **CarboFix™** implants have a modulus of elasticity which is close to that of cortical bone, lowering the risk for stress risers and secondary fractures.



Fatigue Strength

Composite materials are known for their significant fatigue strength. Carbon Fiber composite materials are currently being used in critical load bearing structures of commercial airliners (e.g. the wings of the Boeing 787 “Dreamliner”), high performance automobiles and now orthopedic trauma implants.

During fatigue testing the **CarboFix™** 8.5 mm nail withstood 4 million cycles without showing any sign of failure or damage to the nail, which is **4 times** the acceptance criteria for the applicable standard.

Radiolucency

CarboFix™ implants allow for unparalleled intraoperative and post operative imaging.



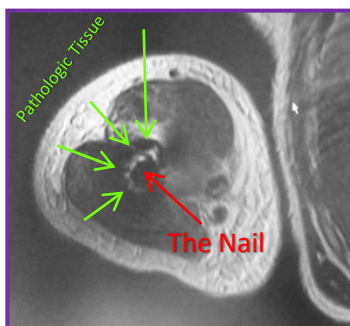
Metal Nail



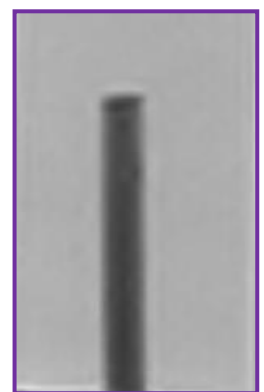
CarboFix™ Nail-clear view of the fracture

CT & MRI Imaging

The CarboFix™ implants enable CT and MRI scans with minimal artifacts interference allowing for clear images of the surrounding tissues and the bone. This is clearly an advantage in monitoring fracture healing and pathological tissue.



Titanium Rod Ø5mm in MRI field: demonstrates massive artifacts



Carbon Fibers Rod Ø5mm in MRI field: no artifacts

The Implants

The features of the **CarboFix™** Femoral and Tibial Nails:

- Anatomically shaped:
- The **Femoral Nail** arches anteriorly in a radian of 1.5 meters
- The Femoral nail can be used in an antegrade (Piriformis Fossa) or retrograde approach.
- The screw holes have an inner thread for enhanced screw fixation to the nail.
- The femoral and tibial nails are cannulated , enabling insertion over a proprietary Ø2.4mm Guide Wire.
- All nails are supplied sterile in various lengths.
- For further information please refer to the product instructions for use at the following link:

www.carbo-fix.com/ifu-tib-fem-nail

Tibia

Diameter (mm)	Proximal diameter (mm)	Length (mm)
10.0	11.5	200*, 260, 280, 300, 320, 340, 360, 380, 400
11.0	11.5	200*, 260, 280, 300, 320, 340, 360, 380, 400

* Special Order

Femur

Diameter (mm)	Proximal diameter (mm)	Length (mm)
10.0	11.5	300, 320, 340, 360, 380, 400, 420
11.0	11.5	300, 320, 340, 360, 380, 400, 420
12.0	12.0	300, 320, 340, 360, 380, 400, 420



CarboFix™
Femoral Nail

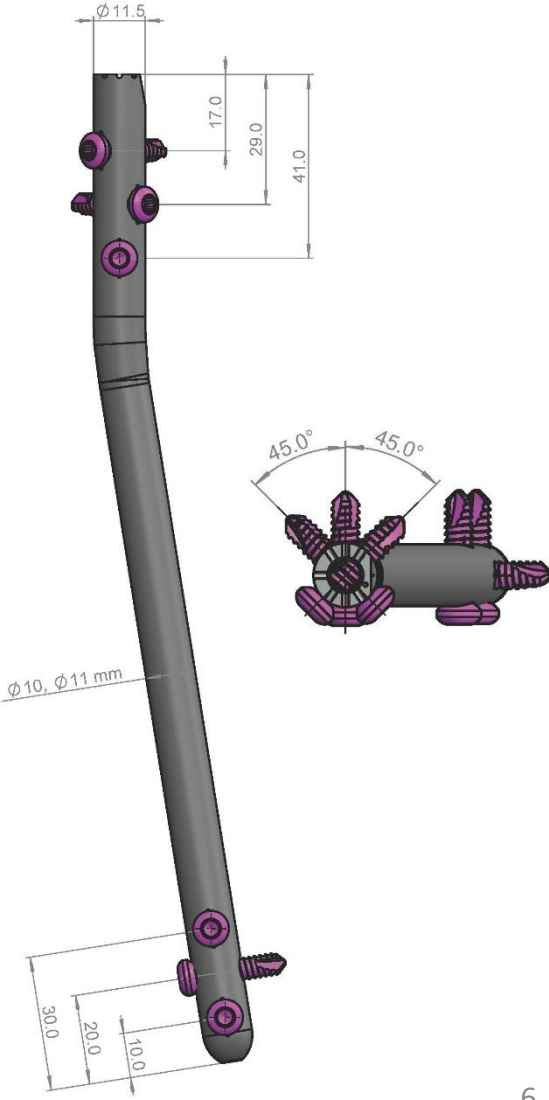
CarboFix™
Tibial Nail

CarboFix Femur & Tibia Nail Design & Dimensions

Femoral Nail

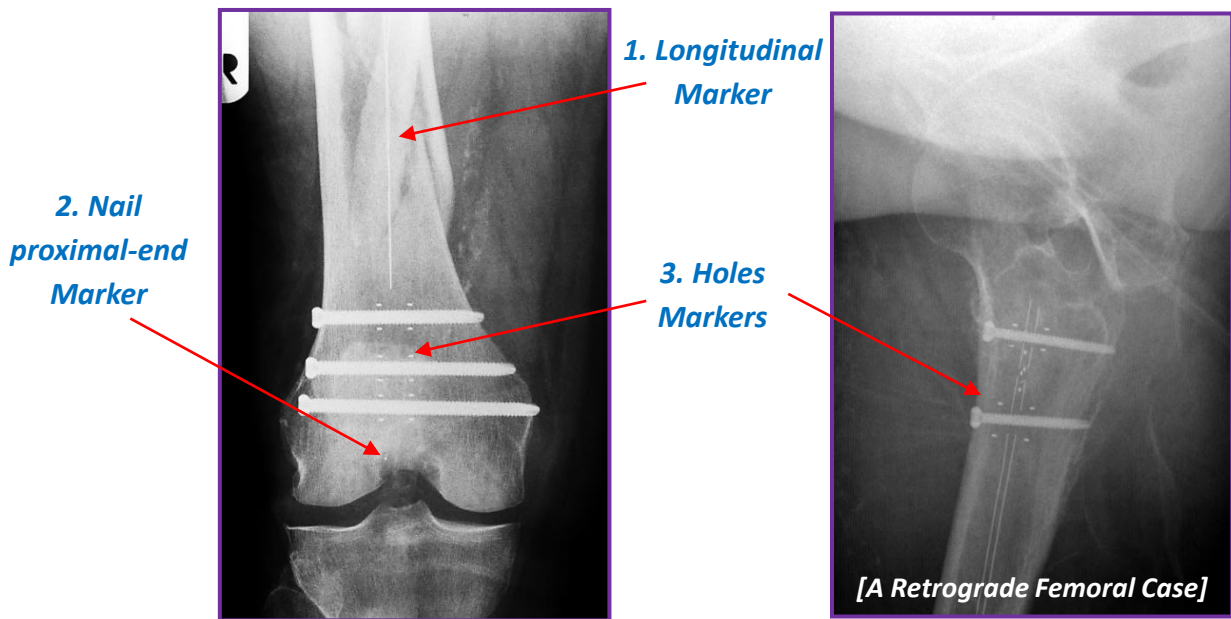


Tibia Nail




Radiopaque Markers

1. Radiopaque marker along the nail longitudinal axis enables nail visualization under fluoroscopy.
2. Marker at the nail proximal end of the nails indicating the terminal end (proximal end) of the nail.
3. Markers, which are located at both sides of each hole.

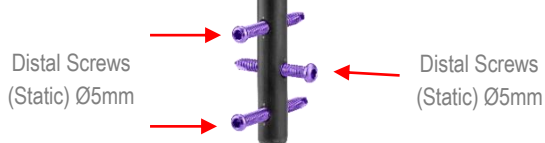
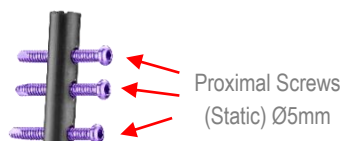


The Screws

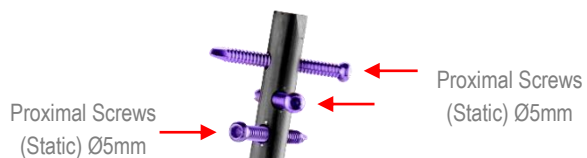
All screws are provided non-sterile and are contained in the instrument tray.

Description	Diameter (mm)	Lengths (mm)	Screw color	Drill Bit Diameter (mm)	
Proximal Screw [Titanium]	5.0	30-105 30-60mm: 2.5mm increments: In the set 65-85mm: 5.0mm increments: In the Set 90, 100, 105mm: Supplied Sterile	Purple	4.2	

Femur Nail



Tibia Nail



Instrumentation

The instrumentation tray includes the instrumentation for both the **CarboFix Femoral Nail** and the **CarboFix Tibial Nail**.

Access Ø3.2mm Guide Wire

Marks the entry point and trajectory into the medulla canal.



Awl

Used to access the medullary canal for insertion of the Nail. The Awl is cannulated and can be positioned over the Access Ø3.2mm guide wire.



Entry Portal & Trocar*

The Entry Portal is a soft tissue protector during soft tissue tunneling and reaming.

It is to accommodate a Ø3.2mm Access Guide Wire. The Trocar is locked to the Entry Portal by turning it clockwise.



Ø13x300mm Drill Bit *

Used to access the medullary canal. It is to accommodate a Ø3.2mm Access Guide Wire.



Finger Tool*

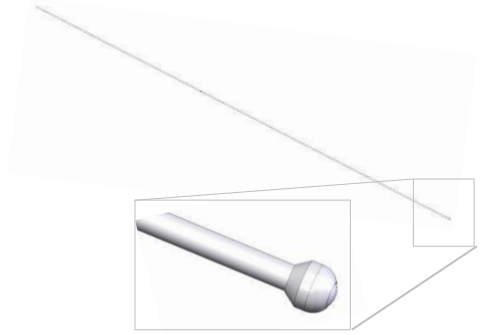
Assists in fracture reduction and insertion of a Ball-Tip Guide Wire. It can accommodate standard Ball-Tip Guide Wires up to a ball-tip diameter of 4.5mm.

* Optional



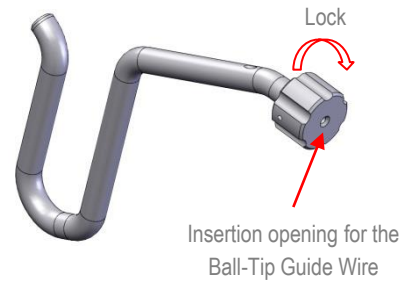
Ball-Tip Guide Wire Ø2.5mm**

Assists in fracture reduction, reaming and medulla canal length measurement. Compatible with conventional reamer sets. Ball Tip diameter Ø4.5mm, Length: 850 mm. Supplied sterile, packed separately for single use.



Guide Wire Holder*

Grabs the Ball-Tip Guide Wire during its insertion to the medulla canal. Rotation of the knob clock wise locks the Guide Wire.



Guide Wire Pusher*

Use to retain position of the Ball-Tip Guide Wire during reamers exchange.



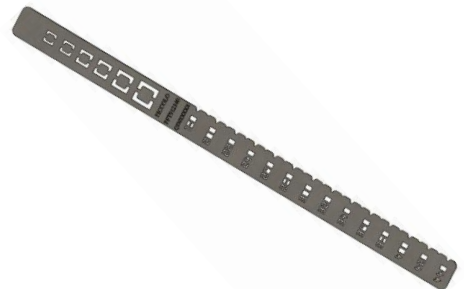
Guide Wire Ruler*

Measures the required nail length over the proprietary CarboFix Ball-Tip Guide Wire.



Radiographic Ruler

Used to determine the required Nail diameter and length.



* Optional

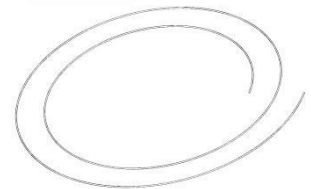
Guide Wire Exchange Tube

Used for replacing the Ball-Tip Reamer Guide Wire with the $\varnothing 2.4\text{mm}$ Nitinol Guide Wire. Supplied sterile and packed separately for single use.



Nitinol Guide Wire

The $\varnothing 2.4\text{mm}$ Guide Wire is used for Nail insertion into the medulla canal. Supplied sterile and packed separately for single use.



Tibia Insertion Handle

The Insertion Handle is connected to the Nail, and enables Nail insertion. A designated hole in the Handle, is used for connection of the Proximal Aiming Arm.



Tibia Proximal Aiming Arm

The Arm is connected to the Insertion Handle by a designated screw. It is designed to guide drilling and screws insertion into the holes at the nail proximal end.

Tibia Nail Adapter

The Nail Adapter connects and locks the Handle to the Nail proximal end.



Femur Insertion Handle

The Insertion Handle is connected to the Nail, and enables Nail insertion. A hole on the Handle is used for connection of the Striking Adapter.



Femur Nail Adapter

The Nail Adapter and locks the Handle to the Nail proximal end.



Striking Adapter

Connects to the Insertion Handle. During Nail insertion, the surgeon can tap on it using a Mallet, or connect it to the Slide Hammer.



Mallet

The Mallet may be used during Nail insertion. The plastic side of the Mallet should be used for tapping the Striking Adapter gently.

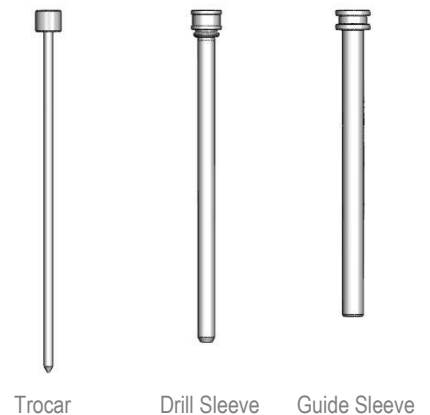


Guide & Drill Sleeves, Trocar

The Guide Sleeve is a working channel through which the Drill Sleeve and the Trocar are inserted.

The Drill Sleeve accommodates the Ø4.2mm Drill Bit.

The Guide & Drill Sleeves lock to each other.



Free Hand Drill Sleeve

A working channel for the short $\varnothing 4.2\text{mm}$ Drill Bits. It is radiolucent and being used for drilling, in free hand technique, the distal screw holes.



Drill Bits

There are two Drill Bits in the set:

- $\varnothing 4.2\text{mm}$ Drill Bit for drilling the holes for the proximal screws (screws diameter 5.0mm). It has markings along its shaft for measuring the screw length. Marked **Purple (A)**.
- $\varnothing 4.2\text{mm}$ Drill Bit for drilling the holes for the distal screws (screws diameter 5.0mm). Marked **Purple (B)**.



Depth Gauge

Measures the required screw length.



Screwdriver

It is used for Screws or the Nail Cap.

There are 2 Screwdrivers in the set:

- A long Screwdriver for use through the Guide Sleeve.
- A short Screwdriver for easy insertion of the distal screws.



Power Drive Screwdriver

For use with a power drive.



Ball-Hex-Tip Screwdriver

Connects to the Nail Adapter for attaching / detaching the Insertion Handle from the Nail.



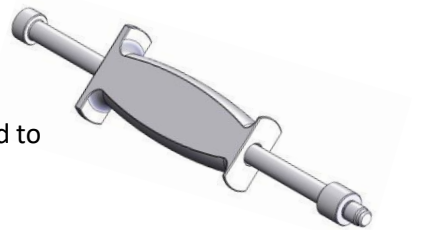
Nail Removal Adapter

For Nail removal, it is to the Nail's proximal end as well as to the Slide Hammer.



Slide Hammer

Used for Nail removal by connecting it to the Nail Removal Adapter. Optionally, it may be used for Nail insertion. In such cases it is connected to the Striking Adapter.



Procedure Steps

Tibia

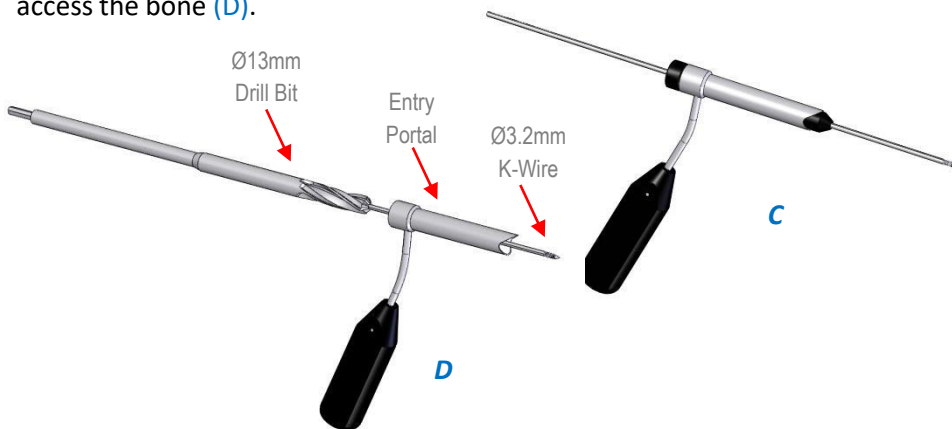
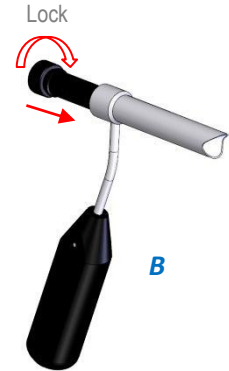
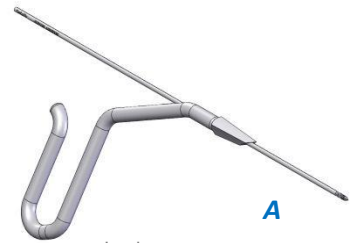
Entry & Canal Preparation

1. Use a $\varnothing 3.2\text{mm}$ K-Wire to mark the entry point.

There are two to enter the bone:

A. Use the Awl over the K-Wire to perforate an entry hole. The Awl diameter is 13mm, to fit the proximal end diameter of the Nail (**A**).

B. Insert the Trocar into the Entry Portal, and lock it by rotating it clock wise (**B**). Insert The Portal Assembly over the K-Wire and remove the Trocar (**C**). Use the $\varnothing 13\text{mm}$ Drill Bit over the K-Wire to access the bone (**D**).



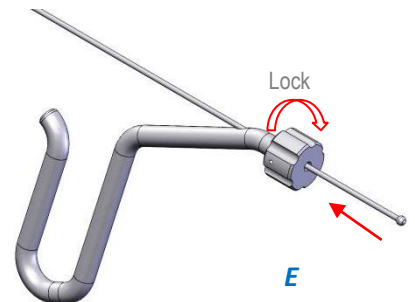
2. Insert the proprietary $\varnothing 2.5\text{mm}$ Ball-Tip Guide Wire to the Guide Wire Holder, and lock it by rotating the Holder's knob clockwise (**E**).

Insert the Ball-Tip Guide Wire into the medulla canal past the fracture line. Remove the Guide Wire Holder by rotating the Holder's knob counter clockwise.

Perform reaming. The Ball Tip Guide Wire can be used with any conventional Reamer set. The Guide shaft diameter is $\varnothing 2.5\text{mm}$, and the Ball Tip diameter is $\varnothing 4.5\text{mm}$.

Final reaming should be 1–1.5mm larger than the selected Nail diameter.

A Guide Wire Pusher can be used to retain the Guide Wire in the canal while exchanging Reamers.



Nail Measurement

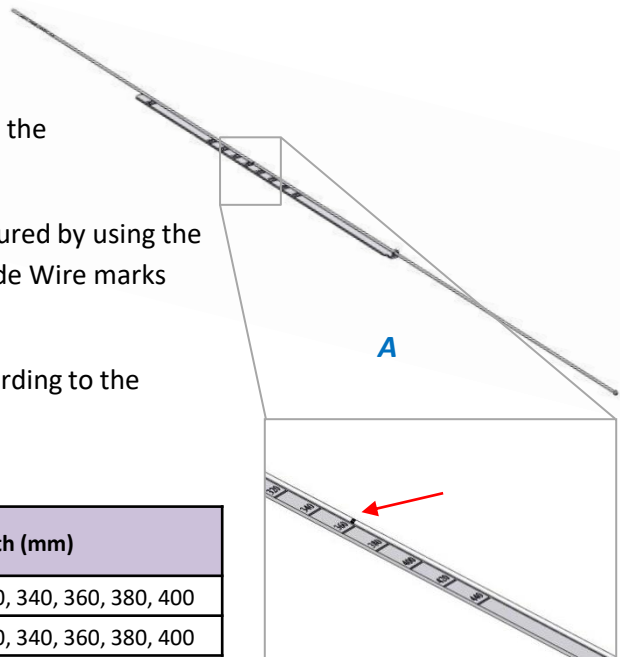
3. Measure the Tibia length and diameter using the Radiographic Ruler.

Optional: the required nail length can be measured by using the Guide Wire Ruler. A marker on the Ball-Tip Guide Wire marks the required nail length (A).

Use the required Nail diameter and length according to the following table:

Tibia

Diameter (mm)	Proximal diameter (mm)	Length (mm)
10.0	11.5	260, 280, 300, 320, 340, 360, 380, 400
11.0	11.5	260, 280, 300, 320, 340, 360, 380, 400



4. Use a Guide Wire Exchange Tube to exchange the Ball-Tip Guide Wire by the Ø2.4mm Nitinol Guide Wire, on which the nail will be inserted.

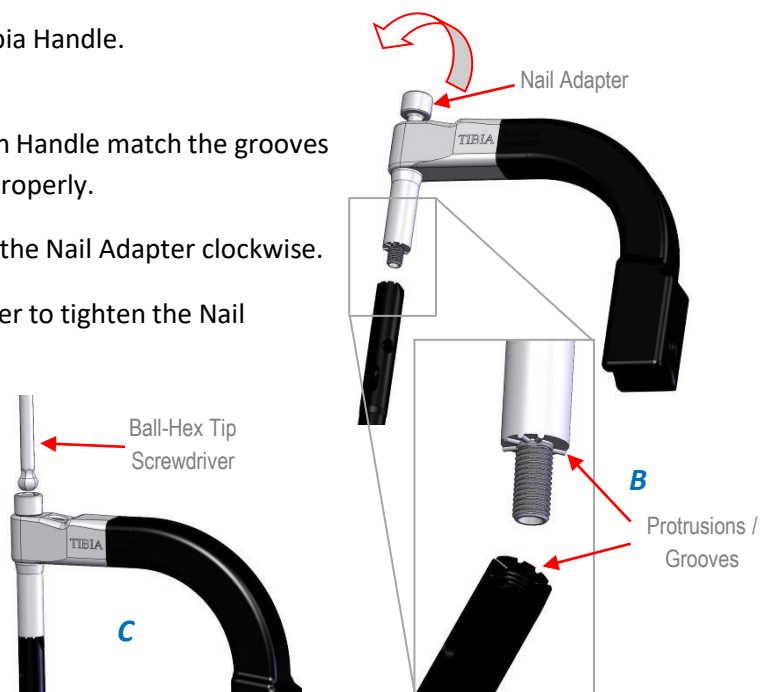
Nail Insertion

5. Insert the Tibia Nail Adapter into the Tibia Handle. Both marked "Tibia".

Make sure the protrusions on the Insertion Handle match the grooves on the nail (B). Verify the nail is oriented properly.

Tighten the Nail to the Handle by rotating the Nail Adapter clockwise.

If required, use the Ball-Hex Tip Screwdriver to tighten the Nail Adapter (C). **Do not apply high torque.**



6. Connect the Proximal Aiming Arm (Targeter) using its screw to the Insertion Handle hole. The Proximal Aiming Arm can be connected in right or left orientation according to the treated bone (A).



7. Connect the Striking to the Handle.

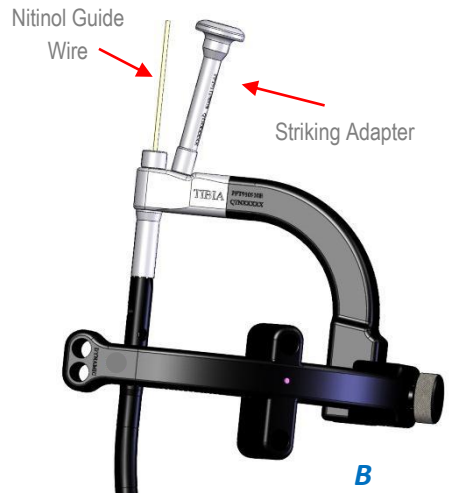
8. Insert the Nail into the canal over the Nitinol Guide Wire.

If needed, the Mallet can be used to insert the Nail. Use the plastic part of the Mallet to tap on the Striking Adapter.

Important: Do not use excessive force. Use slight strokes only to position the Nail. Do not use oscillating movements to insert the Nail. Tap on the Adapter only (B).

During Nail, assure fracture reduction using fluoroscopy.

Remove the Nitinol Guide Wire

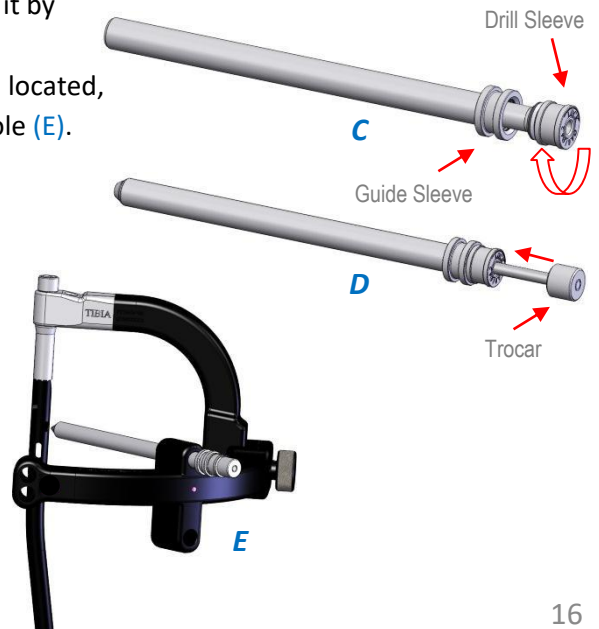


Proximal Screws

9. Insert the Drill Sleeve into the Guide Sleeve and lock it by rotating it clockwise (C). Insert the Trocar (D).

Make an incision where proximal interlocking holes are located, and insert the assembly into the appropriate Handle hole (E).

Remove the Trocar.

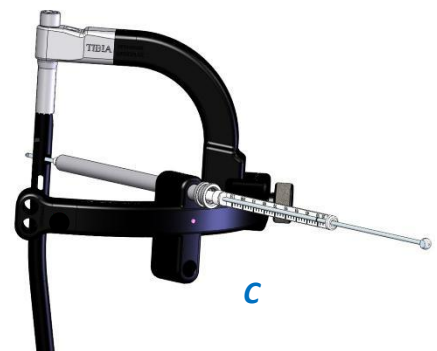
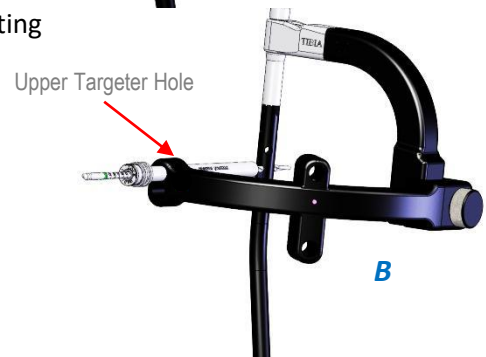
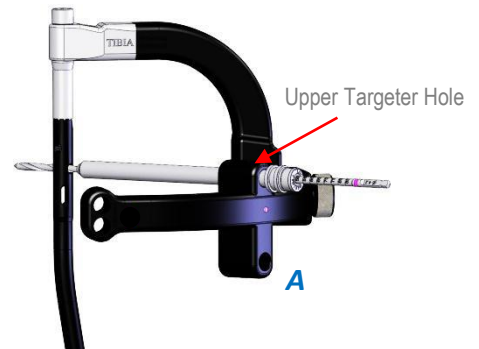


10. Drilling:

For drilling a hole for the Proximal Locking Screw ($\varnothing 5.0\text{mm}$, **Purple**) use the $\varnothing 4.2\text{mm}$ Drill Bit marked **Purple (A)**.

Important: Use always the upper hole of the Targeter

Ensure that the Drill Sleeve tip is touching the cortex, and measure the desired Screw length by using the markers on the Drill Bit. Alternatively, the Depth Gauge can be used by inserting it into the Guide Sleeve (**C**).



11. Remove the Drill Bit and its Sleeve.

Using the **Long** Screwdriver, insert a $\varnothing 5.0\text{mm}$ Screw (**Purple**) to the proximal locking hole.

In case that an additional Locking Screw should be inserted, release the Proximal Aiming Arm from the Insertion Handle, rotate it by 180° , and re-connect it to the Insertion Handle (**D**).

Repeat the above mentioned steps.

12. Disconnect the Insertion Handle from the Nail by unscrewing the Nail Adapter using the Ball-Hex-Tip Screwdriver.



Distal Screws

13. Distal drilling is performed in “free hand” technique.

The tantalum mini rods markers, located near the distal holes, assist in locating the center of the holes (A). Upon proper positioning, while the x-ray beam is perpendicular to the hole, the 2 radiopaque markers at each side of the hole should be aligned into a single dot. In proper positioning a single dot should be seen at each side of the hole (C).

Drill a hole for the Interlocking Screw using the short **Purple** marked Ø4.2mm Drill Bit.

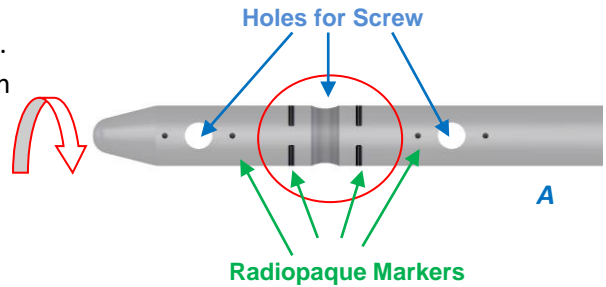
The Free Hand Drill Sleeve is radiolucent, and can be used for positioning the Drill Bit in the right trajectory, as well as protecting the soft tissue during drilling (D).

Select the appropriate length of the Ø 5.0mm Screw (**Purple**), by using the Depth Gauge.

Insert the Screw by using the **Short** Screwdriver & repeat the procedure for the other hole/s as well.



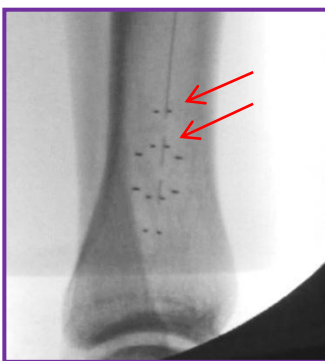
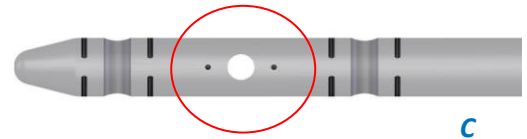
The Nail distal part & radiopaque markers under X-Ray



Incorrect Alignment of Markers for Distal Screws Insertion



Correct Alignment of Markers



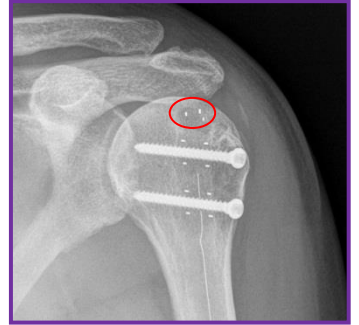
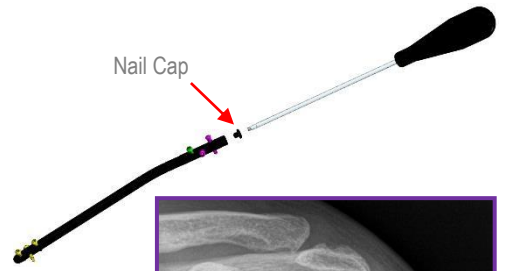
Alignment of Markers

Nail Cap Insertion

Nail Cap (supplied separately, packed sterile) can be inserted by using the Screwdriver. The Nail Cap is positioned after detachment of the Insertion Handle.

There are 3 available Nail Cap lengths: 4, 8 & 12mm

The Nail Cap is made out of titanium.

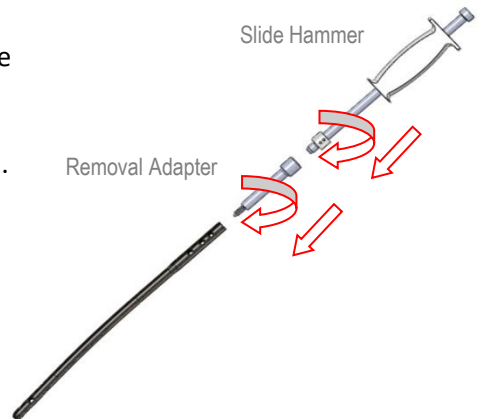


Nail Cap Visualization in X-ray
(Humeral Nail)

Nail Removal

1. Remove the Nail Cap and the Interlocking Screws by using the Screwdriver.
2. Screw the Nail Removal Adapter onto the nail's proximal end.
3. Connect the Slide Hammer to the Nail Removal Adapter.

Use light strokes of the Slide Hammer to remove the Nail from the bone.



Pre-OP



Post-OP



Procedure Steps

Femur

Entry & Canal Preparation

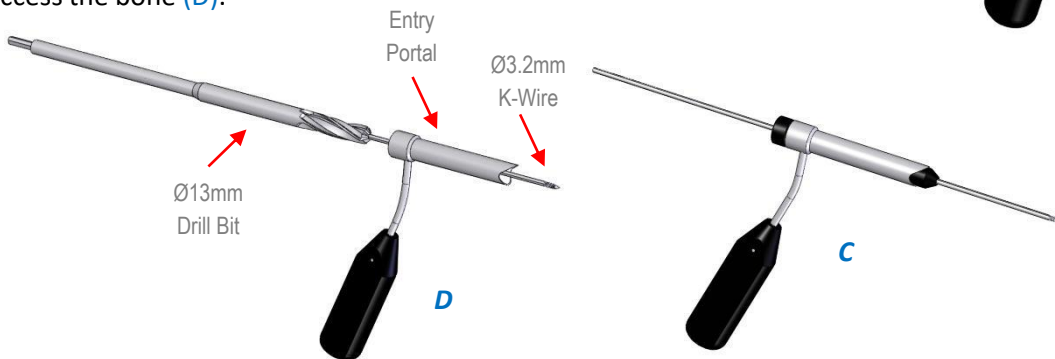
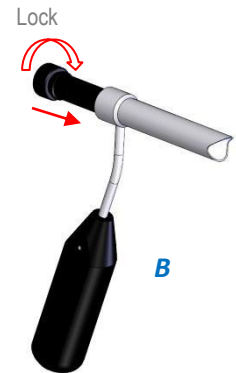
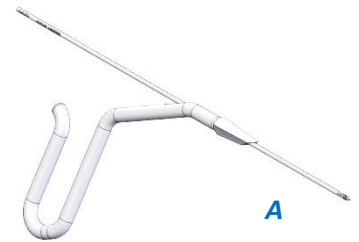
The Nail can be inserted in an antegrade (Piriformis Fossa) or retrograde approach. The following description refers to an antegrade approach.

1. Use a $\varnothing 3.2\text{mm}$ K-Wire to mark the entry point.

There are two options to enter the bone:

I. Use the Awl over the K-Wire to perforate an entry hole (A). The Awl diameter is 13mm, to fit the proximal end diameter of the Nail.

II. Insert the Trocar into the Entry Portal, and lock it by rotating it clock wise (B). Insert The Entry Portal Assembly over the K-Wire (C) and remove the Trocar. Use the $\varnothing 13\text{mm}$ Drill Bit over the K-Wire to access the bone (D).



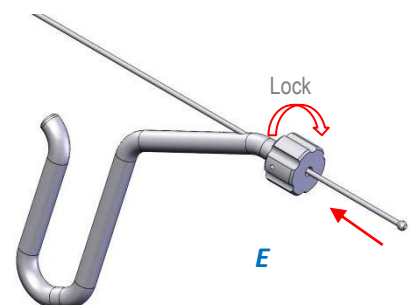
2. Insert the proprietary $\varnothing 2.5\text{mm}$ Ball-Tip Guide Wire to Guide Wire Holder, and lock it by rotating the Holder's knob clockwise (E).

Insert the Ball-Tip Guide Wire into the medulla canal past the fracture line. Remove the Guide Wire Holder by rotating the Holder's knob counter clockwise .

Perform reaming. The Ball Tip Guide Wire can be used with any conventional Reamer set. The Guide shaft diameter is $\varnothing 2.5\text{mm}$, and the Ball Tip diameter is $\varnothing 4.5\text{mm}$.

Final reaming should be 1–1.5mm larger than the selected Nail diameter.

A Guide Wire Pusher can be used to retain the Guide Wire in the canal while exchanging Reamers.



Nail Measurement

3. Measure the length and diameter using the Radiographic Ruler.

Optional: The nail length can be measured by using the Guide Wire Ruler. A marker on the Ball-Tip Guide Wire marks the required nail length (A).

Use the required Nail diameter and length according to the following table:

Femur

Diameter (mm)	Proximal diameter (mm)	Length (mm)
10.0	11.5	200*, 300, 320, 340, 360, 380, 400, 420
11.0	11.5	200*, 300, 320, 340, 360, 380, 400, 420
12.0	12.0	200*, 300, 320, 340, 360, 380, 400, 420

* Optional

4. Use a Guide Wire Exchange Tube to exchange the Ball-Tip Guide Wire by the Ø2.4mm Nitinol Guide Wire, on which the nail will be inserted.

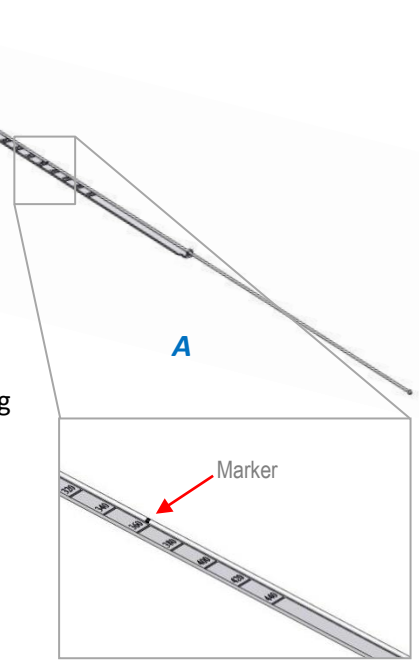
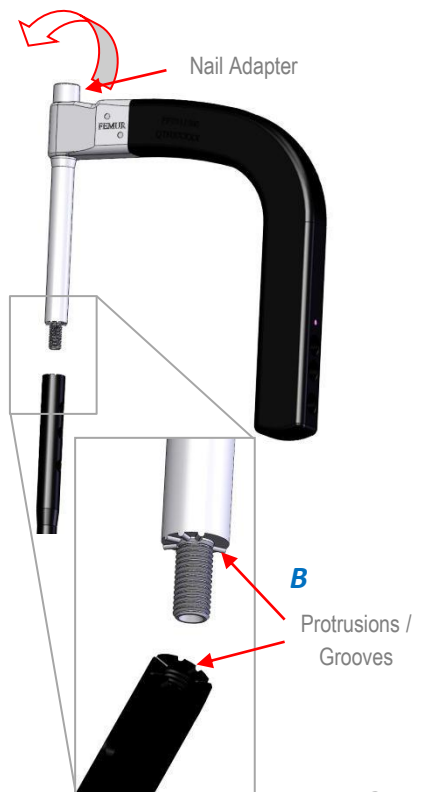
Nail

5. Insert the Femur Nail Adapter into the Femur Handle. Both marked "Femur".

Make sure to adjust the protrusions on the Insertion Handle to match the grooves on the nail (B). Verify the nail is oriented properly on the Insertion Handle (right or left femur).

Tighten the Nail to the Handle by rotating the Nail Adapter clockwise.

If required, use the Ball-Hex Tip Screwdriver to tighten the Nail Adapter (C). **Do not apply high torque.**



6. Connect the Striking Adapter to the Handle (A).

7. Insert the Nail into the canal over the Nitinol Guide Wire (A).

If needed, the Mallet can be used to insert the Nail. Use the plastic part of the to tap on the Striking Adapter.

Important: Do not use excessive force. Use slight strokes only to position the Nail. Do not use oscillating movements to insert the Nail. Tap on the Striking Adapter only.

During Nail insertion, assure fracture reduction using fluoroscopy.

Remove the Nitinol Guide wire.

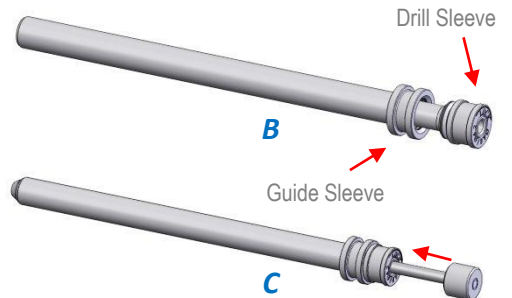


Proximal Screws

8. Insert the Drill Sleeve into the Guide Sleeve and lock it by rotating it clockwise (B). Insert the Trocar (C). Make an incision where proximal interlocking holes are located, and place the Assembly into the appropriate Handle hole (D).

Use the holes marked with a **Purple** dot to drill the proximal locking holes.

Remove the Trocar.



9. Drilling:

For drilling holes for the Proximal Locking Screws ($\varnothing 5.0\text{mm}$, **Purple**) use the $\varnothing 4.2\text{mm}$ Drill Bit marked **Purple (A)**.

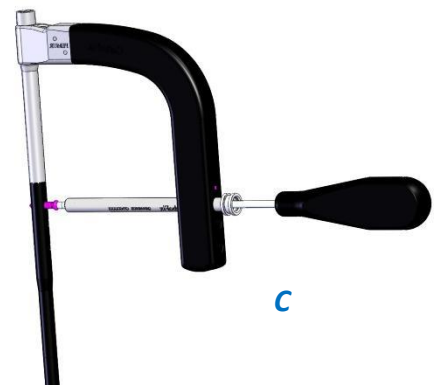
Ensure that the Drill Sleeve tip is touching the cortex, and measure the desired Screw length by using the markers on the Drill Bit. Alternatively, the Depth Gauge can be used by inserting it into the Guide Sleeve (**B**).



10. Remove the Drill Bit and its Sleeve.

Using the **Long** Screwdriver, insert a $\varnothing 5.0\text{mm}$ Screw (**Purple**) to the locking hole.

Repeat the above mentioned steps for the rest of the proximal screw holes.



11. Disconnect the Insertion Handle from the Nail by unscrewing the Nail Adapter using the Ball-Hex-Tip Screwdriver.

Distal Screws

12. Distal drilling is performed in “free hand” technique.

The tantalum mini rods markers, located near the distal holes, assist in locating the center of the holes (A). Upon proper positioning, while the x-ray beam is perpendicular to the hole, the 2 radiopaque markers at each side of the hole should be aligned into a single dot. In proper positioning a single dot should be seen at each side of the hole (C).

Drill a hole for the Interlocking Screw using the short **Purple** marked Ø4.2mm Drill Bit.

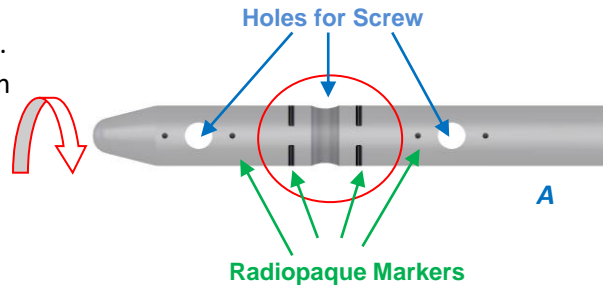
The Free Hand Drill Sleeve is radiolucent, and can be used for positioning the Drill Bit in the right trajectory, as well as protecting the soft tissue during drilling (D).

Select the appropriate length of the Ø 5.0mm Screw (**Purple**), by using the Depth Gauge.

Insert the Screw by using the **Short** Screwdriver & repeat the procedure for the other hole/s as well.



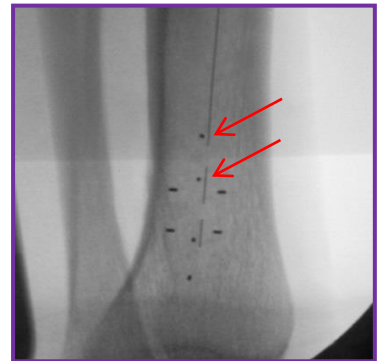
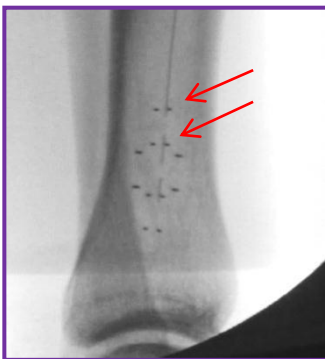
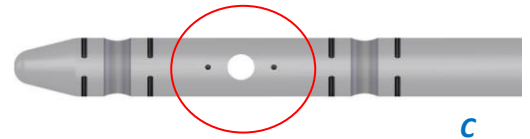
The Nail distal part & radiopaque markers under X-Ray



Incorrect Alignment of Markers for Distal Screws Insertion



Correct Alignment of Markers



Alignment of Markers

Nail Cap Insertion

Nail Cap (supplied separately, packed sterile) can be inserted by using the Screwdriver. The Nail Cap is positioned after detachment of the Insertion Handle.

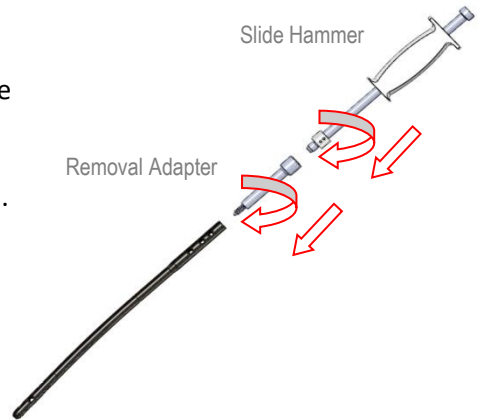
There are 3 available Nail Cap lengths: 4, 8 & 12mm



Nail Removal

1. Remove the Nail Cap and the Interlocking Screws by using the Screwdriver.
2. Screw the Nail Removal Adapter onto the nail's proximal end.
3. Connect the Slide Hammer to the Nail Removal Adapter.

Use light strokes of the Slide Hammer to remove the Nail from the bone.



Pre-OP



Post-OP



Ordering Information

Tibia Nails

Cat. No.	Description	Diameter (mm)	Length (mm)	Proximal Dia. (mm)
5PTN10260	Piccolo Tibia Nail 10.0 260mm	10.0	260	11.5
5PTN10280	Piccolo Tibia Nail 10.0 280mm	10.0	280	11.5
5PTN10300	Piccolo Tibia Nail 10.0 300mm	10.0	300	11.5
5PTN10320	Piccolo Tibia Nail 10.0 320mm	10.0	320	11.5
5PTN10340	Piccolo Tibia Nail 10.0 340mm	10.0	340	11.5
5PTN10360	Piccolo Tibia Nail 10.0 360mm	10.0	360	11.5
5PTN10380	Piccolo Tibia Nail 10.0 380mm	10.0	380	11.5
5PTN10400	Piccolo Tibia Nail 10.0 400mm	10.0	400	11.5
5PTN11260	Piccolo Tibia Nail 11.0 260mm	11.0	260	11.5
5PTN11280	Piccolo Tibia Nail 11.0 280mm	11.0	280	11.5
5PTN11300	Piccolo Tibia Nail 11.0 300mm	11.0	300	11.5
5PTN11320	Piccolo Tibia Nail 11.0 320mm	11.0	320	11.5
5PTN11340	Piccolo Tibia Nail 11.0 340mm	11.0	340	11.5
5PTN11360	Piccolo Tibia Nail 11.0 360mm	11.0	360	11.5
5PTN11380	Piccolo Tibia Nail 11.0 380mm	11.0	380	11.5
5PTN11400	Piccolo Tibia Nail 11.0 400mm	11.0	400	11.5

Femur Nails

Cat. No.	Description	Diameter (mm)	Length (mm)	Proximal Dia. (mm)
5PRFN10200	CarboFix Femur Nail 10.0 200mm	10.0	200	11.5
5PRFN10300	CarboFix Femur Nail 10.0 300mm	10.0	300	11.5
5PRFN10320	CarboFix Femur Nail 10.0 320mm	10.0	320	11.5
5PRFN10340	CarboFix Femur Nail 10.0 340mm	10.0	340	11.5
5PRFN10360	CarboFix Femur Nail 10.0 360mm	10.0	360	11.5
5PRFN10380	CarboFix Femur Nail 10.0 380mm	10.0	380	11.5
5PRFN10400	CarboFix Femur Nail 10.0 400mm	10.0	400	11.5
5PRFN10420	CarboFix Femur Nail 10.0 420mm	10.0	420	11.5
5PRFN11200	CarboFix Femur Nail 11.0 200mm	11.0	200	11.5
5PRFN11300	CarboFix Femur Nail 11.0 300mm	11.0	300	11.5
5PRFN11320	CarboFix Femur Nail 11.0 320mm	11.0	320	11.5
5PRFN11340	CarboFix Femur Nail 11.0 340mm	11.0	340	11.5
5PRFN11360	CarboFix Femur Nail 11.0 360mm	11.0	360	11.5
5PRFN11380	CarboFix Femur Nail 11.0 380mm	11.0	380	11.5
5PRFN11400	CarboFix Femur Nail 11.0 400mm	11.0	400	11.5
5PRFN11420	CarboFix Femur Nail 11.0 420mm	11.0	420	11.5
5PRFN12200	CarboFix Femur Nail 12.0 200mm	12.0	200	12.0
5PRFN12300	CarboFix Femur Nail 12.0 300mm	12.0	300	12.0
5PRFN12320	CarboFix Femur Nail 12.0 320mm	12.0	320	12.0
5PRFN12340	CarboFix Femoral Nail 12.0 340mm	12.0	340	12.0
5PRFN12360	CarboFix Femur Nail 12.0 360mm	12.0	360	12.0
5PRFN12380	CarboFix Femur Nail 12.0 380mm	12.0	380	12.0
5PRFN12400	CarboFix Femur Nail 12.0 400mm	12.0	400	12.0
5PRFN12420	CarboFix Femur Nail 12.0 420mm	12.0	420	12.0

Screws

Ø 5.0 Titanium

Cat. No.	Description	Diameter (mm)	Length (mm)	No. Screws in Inst. Set
PCST50300	CarboFix Titanium Screw, 5.0mm, L30mm	5.0	30	4
PCST50325	CarboFix Titanium Screw, 5.0mm, L32.5mm	5.0	32.5	4
PCST50350	CarboFix Titanium Screw, 5.0mm, 35mm	5.0	35	6
PCST50375	CarboFix Titanium Screw, 5.0mm, L37.5mm	5.0	37.5	6
PCST50400	CarboFix Titanium Screw, 5.0mm, L40mm	5.0	40	6
PCST50425	CarboFix Titanium Screw, 5.0mm, L42.5mm	5.0	42.5	8
PCST50450	CarboFix Titanium Screw, 5.0mm, L45mm	5.0	45	8
PCST50475	CarboFix Titanium Screw, 5.0mm, L47.5mm	5.0	47.5	8
PCST50500	CarboFix Titanium Screw, 5.0mm, L50mm	5.0	50	8
PCST50525	CarboFix Titanium Screw, 5.0mm, L52.5mm	5.0	52.5	8
PCST50550	CarboFix Titanium Screw, 5.0mm, L55mm	5.0	55	6
PCST50575	CarboFix Titanium Screw, 5.0mm, L57.5mm	5.0	57.5	6
PCST50600	CarboFix Titanium Screw, 5.0mm, L60mm	5.0	60	6
PCST50650	CarboFix Titanium Screw, 5.0mm, L65mm	5.0	65	6
PCST50700	CarboFix Titanium Screw, 5.0mm, L70mm	5.0	70	4
PCST50750	CarboFix Titanium Screw, 5.0mm, L75mm	5.0	75	4
PCST50800	CarboFix Titanium Screw, 5.0mm, L80mm	5.0	80	4
PCST50850	CarboFix Titanium Screw, 5.0mm, L85mm	5.0	85	4
PCST50900	CarboFix Titanium Screw, 5.0mm, L90mm	5.0	90	Sterile, Single Packed
PCST50950	CarboFix Titanium Screw, 5.0mm, L95mm	5.0	95	Sterile, Single Packed
PCST51000	CarboFix Titanium Screw, 5.0mm, L100mm	5.0	100	Sterile, Single Packed
PCST51050	CarboFix Titanium Screw, 5.0mm, L105mm	5.0	105	Sterile, Single Packed

Nail Cap

Cat. No.	Description	Diameter (mm)	Length (mm)
PTNC9000	Tibia/Femur Nail Cap 4mm*	11.0	4.0
PTNC9008	Tibia/Femur Nail Cap 8mm*	11.0	8.0
PTNC9012	Tibia/Femur Nail Cap 12mm*	11.0	12.0

* Sterile, Single Packed

Miscellaneous

Cat. No.	Description
PFT912260	Access Guide Wire Ø3.2mmX350mm, <i>Sterile & Single Use</i>
PFT912250	Ball-Tip Guide Wire Ø2.5mmX1000mm, <i>Sterile & Single Use</i>
PFT912240	Guide Wire Exchange Tube, <i>Sterile & Single Use</i>
PFT912120	CarboFix Nitinol Guide Wire Rounded Tip Ø2.4x950, <i>Sterile & Single Use</i>
PFT911000US	Drill Bit Ø4.2X300mm, <i>Sterile & Single Use</i>
PPF942180	Step Drill Bit Ø4.0X180mm, <i>Sterile & Single Use</i>

Instrumentation

Cat. No.	Description
PFT910900USA5	Tibia & Femur Instrumentation Set (Not Including Screws)

Instrumentation Set Components

Cat. No.	Description
PFT911700US	Sterilization Box
PFT912260	Access Guide Wire Ø3.2mm
PFT912340	Guide Wire Holder
PFT917000	Awl 13mm
PFT912310	Entry Portal
PFT912280	Entry Trocar
PN913220	Drill Bit Ø13.0 X 300mm
PFT912300	Finger Tool
PFT912270	Guide Wire Pusher
PFT912290	Guide Wire Ruler
PFT912140	Radiographic Ruler
PFT911500	Femur Handle
PFT910910B	Tibia Handle
PFT910910A	Tibia Aiming Arm
PFT911300	Femur Nail Adapter
PFT912380	Tibia Nail Adapter
PFT911100US	Striking Adapter
Q9240390US	Trocar
Q9240020US	Guide Sleeve 10.0/8.0mm
PFT910700US	Drill Sleeve 8.0/4.2mm
PFT912010	Free Hand Drill Sleeve
PPF942180	Drill Bit Ø4.2 X 180mm
PFT911000US	Drill Bit Ø4.2 X 300mm
PFT912230	Slide Hammer
Q9105110	Mallet
Q9106690FT	Screw Depth Gauge
PFT912210	Screwdriver-Long
PFT912360	Screwdriver-Short
PFT912370	Power Drive Screw Driver
PFT912350	Ball-Hex-Tip Screwdriver
PFT911200	Removal Adapter



www.carbo-fix.com

For detailed procedure, indications, contraindications, possible adverse event, warnings and precautions, refer to the Instructions for Use

Caution: In the U.S.A., federal law restricts this device to sale by or on the order of a physician.

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Patents are pending



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