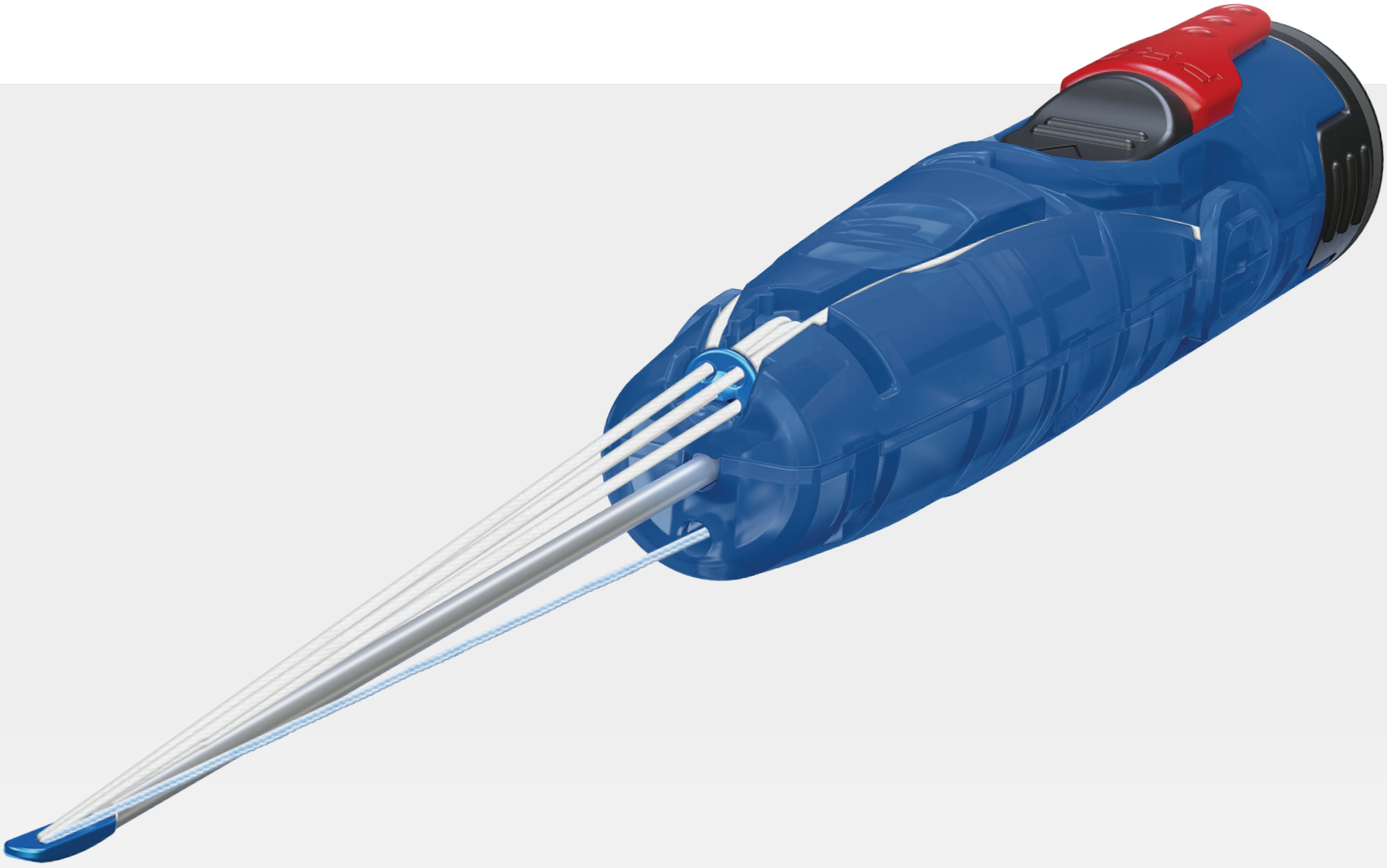
Syndesmosis TightRope® PRO Implant

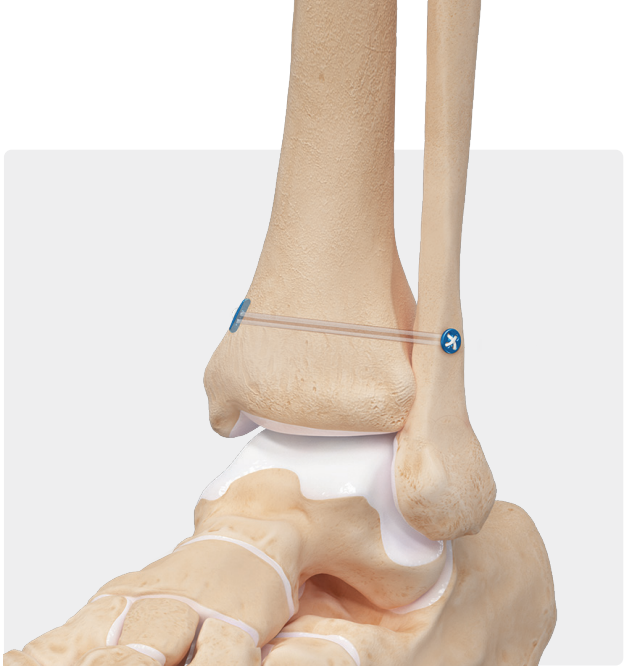
Surgical Technique



Arthrex®

Introduction

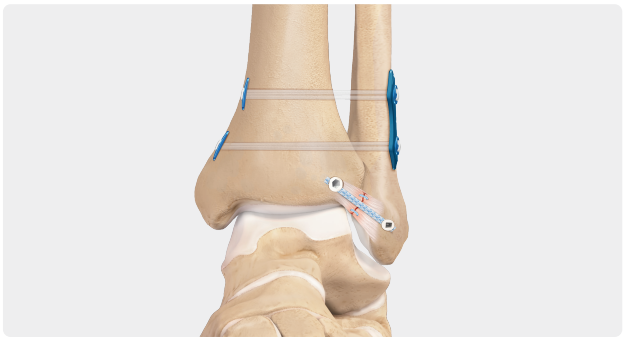
The TightRope® PRO is the next-generation solution for the treatment of syndesmotic injuries. The updated system leverages the knotless suture mechanism that has been trusted in the most demanding patients and combines it with a low-profile implant. In addition to the improved implant, an updated market-leading inserter eliminates surgical steps and increases reproducibility. The TightRope PRO is the next evolution in Arthrex's mission of Helping Surgeons Treat Their Patients Better®.

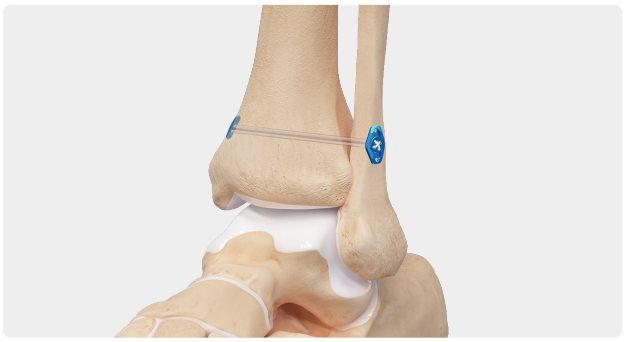


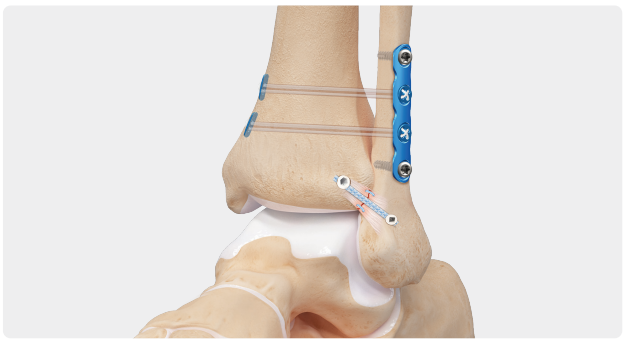
Indications

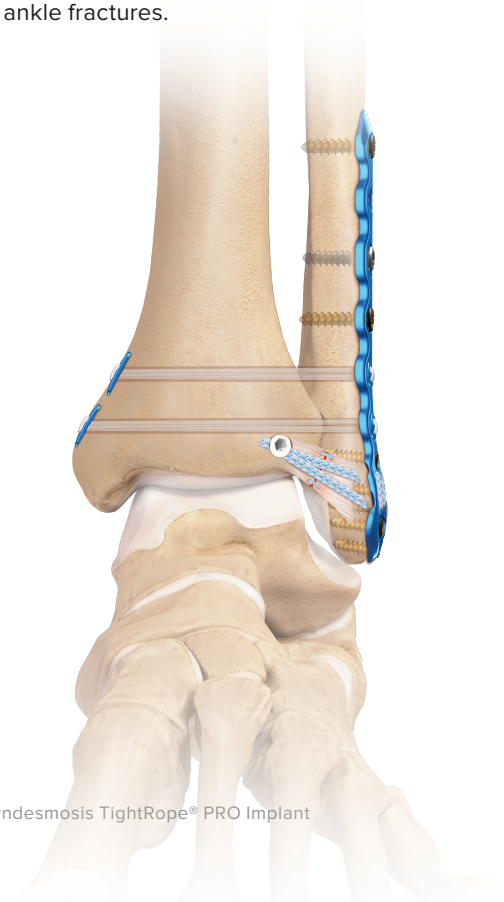
The Syndesmosis TightRope PRO is intended as an adjunct in fracture repair involving metaphyseal and periarticular small bone fragments where screws are not indicated, and as an adjunct in external and intramedullary fixation systems involving plates and rods, with fracture braces and casting.

Specifically, Syndesmosis TightRope PRO is intended to provide fixation during the healing process following a syndesmotic trauma, such as fixation of syndesmosis (syndesmosis disruptions) in connection with Weber B and C ankle fractures.





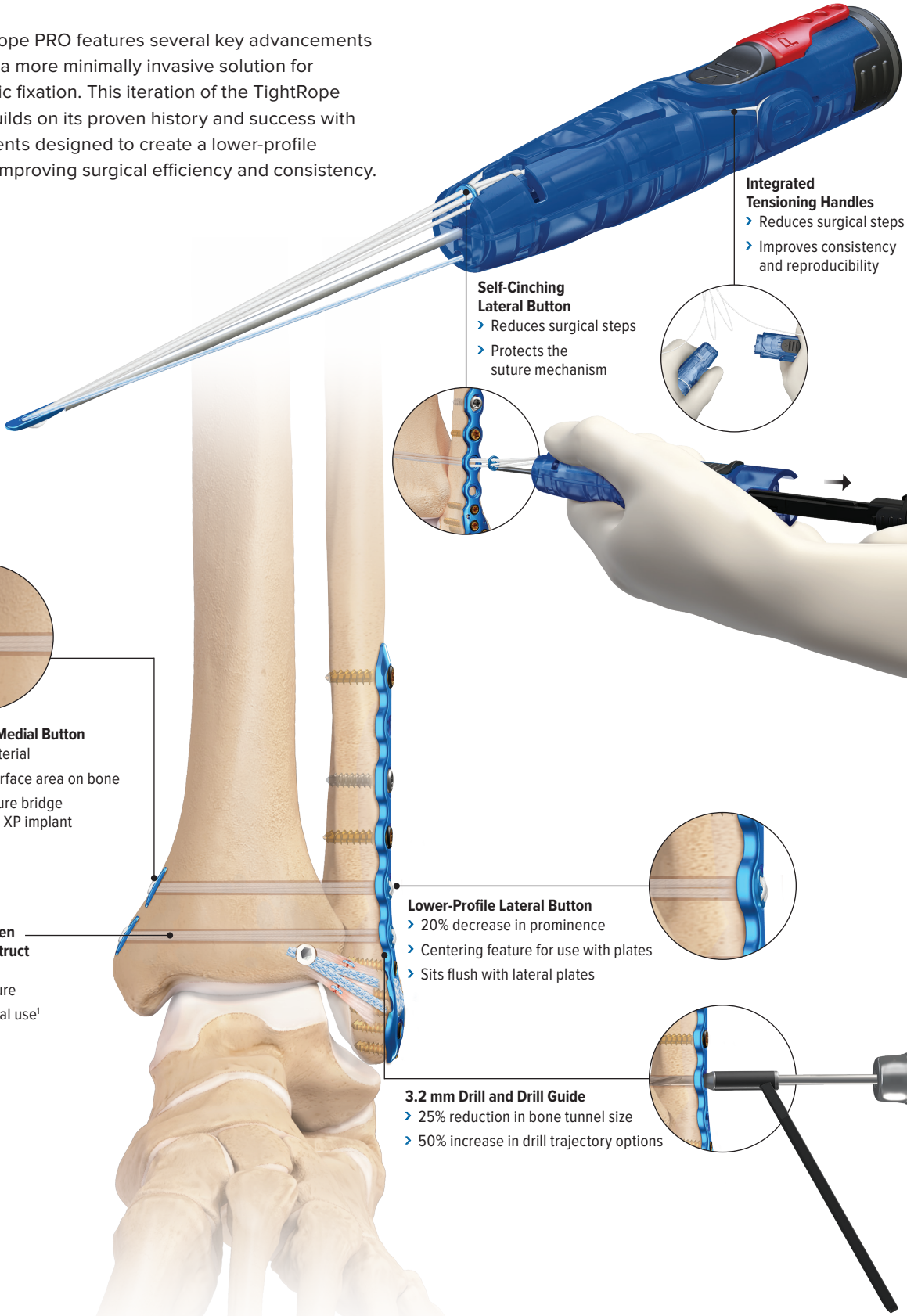




Syndesmosis TightRope® PRO Implant

Design Rationale

The TightRope PRO features several key advancements that create a more minimally invasive solution for syndesmotic fixation. This iteration of the TightRope portfolio builds on its proven history and success with enhancements designed to create a lower-profile construct, improving surgical efficiency and consistency.



Integrated Tensioning Handles
- Reduces surgical steps
- Improves consistency and reproducibility

Self-Cinching Lateral Button
- Reduces surgical steps
- Protects the suture mechanism

Lower-Profile Medial Button
- 25% less material
- Increased surface area on bone
- Identical suture bridge to TightRope XP implant

Clinically Proven Knotless Construct
- #5 UHMWPE knotless suture
- Proven clinical use[1]

Lower-Profile Lateral Button
- 20% decrease in prominence
- Centering feature for use with plates
- Sits flush with lateral plates

3.2 mm Drill and Drill Guide
- 25% reduction in bone tunnel size
- 50% increase in drill trajectory options

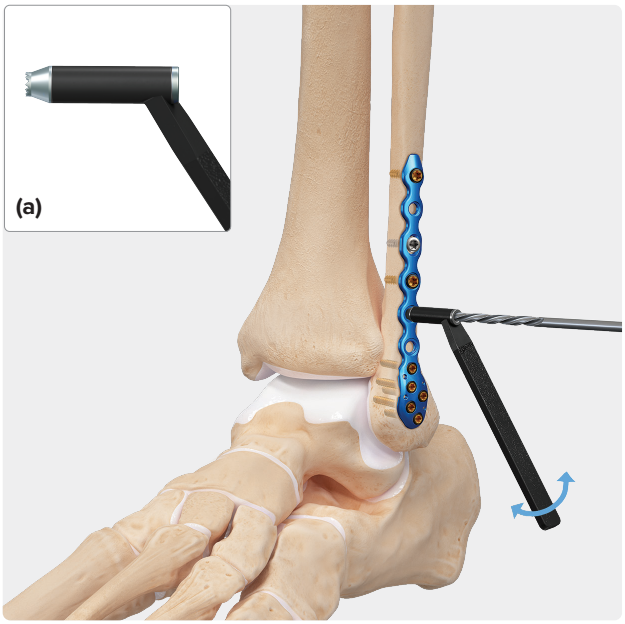
Reference

1. Arthrex, Inc. Data on file (LL1-0401-en-US_J). Naples, FL; 2021.

Surgical Technique

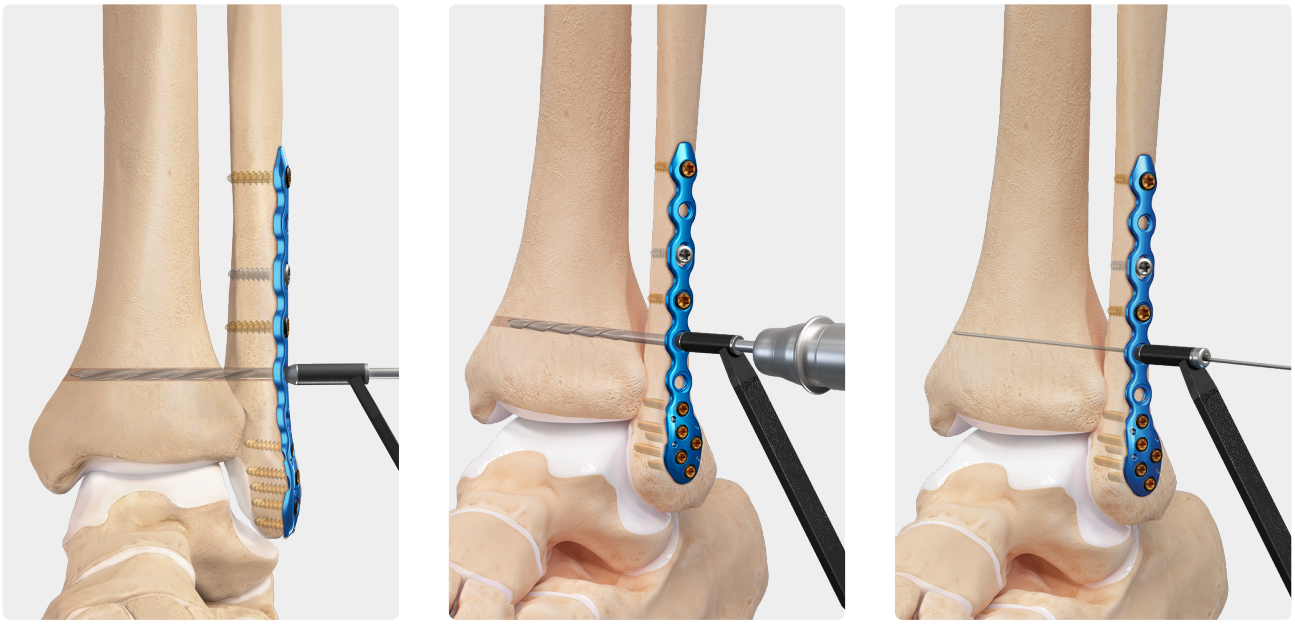
This surgical technique outlines the use of TightRope® PRO in conjunction with the Arthrex Ankle Fracture System. Available in titanium or stainless steel, TightRope PRO can be used with or without plating systems, and the updated kit includes an optional washer for use on the medial or lateral placement.

Drill



1a

After the fibula has been anatomically reduced, use the 3.2 mm drill guide **(a)** to ensure the proper trajectory for the TightRope PRO 3.2 mm drill.

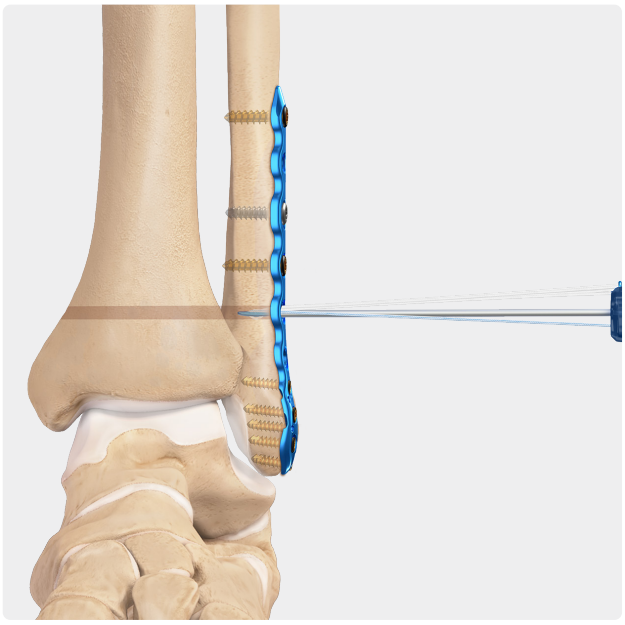


1b

The 3.2 mm drill guide features an updated metal tip to protect the plate and allow the trajectory to be adjusted as needed. Ensure that the drill does not plunge through the far cortex to keep the periosteum intact.

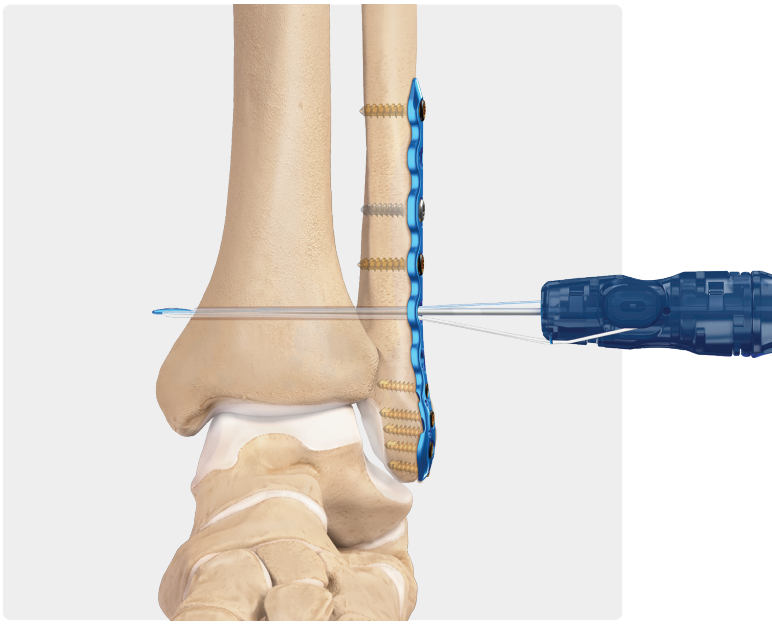
Optional: If a cannulated technique is desired, add the K-wire insert to the drill guide for the 1.35 mm K-wire.

Deploy

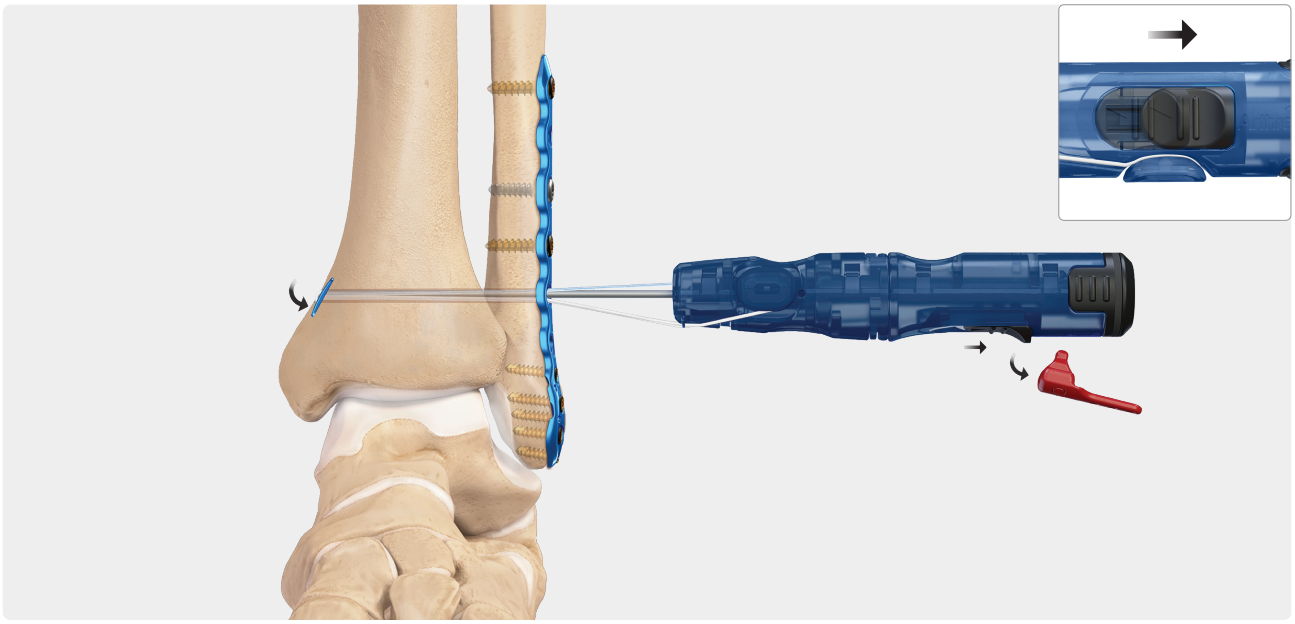


2a

Once the drill tunnel is prepared, insert the TightRope® PRO inserter so that the medial button exits the far cortex. Position the red tab towards the patient's foot to minimize medial prominence.

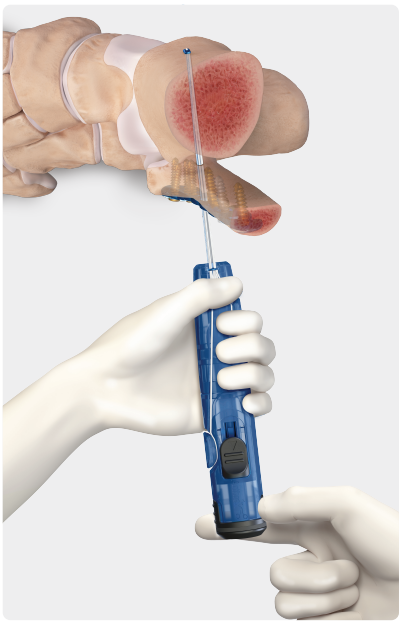


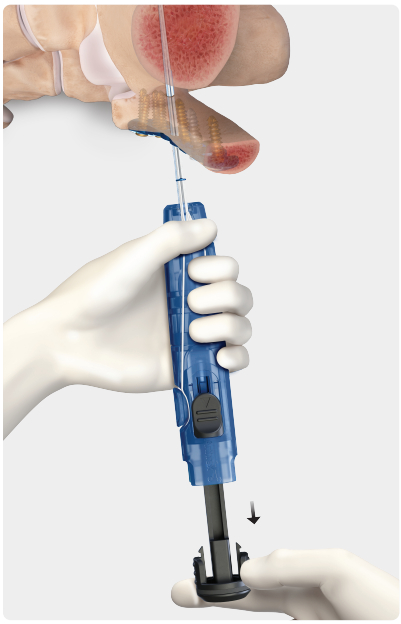
Push the inserter from the back of the handle and avoid twisting the inserter as it passes through the bone.



2b

After insertion, remove the red tab. Push down on the black switch and slide it back to release the medial button.

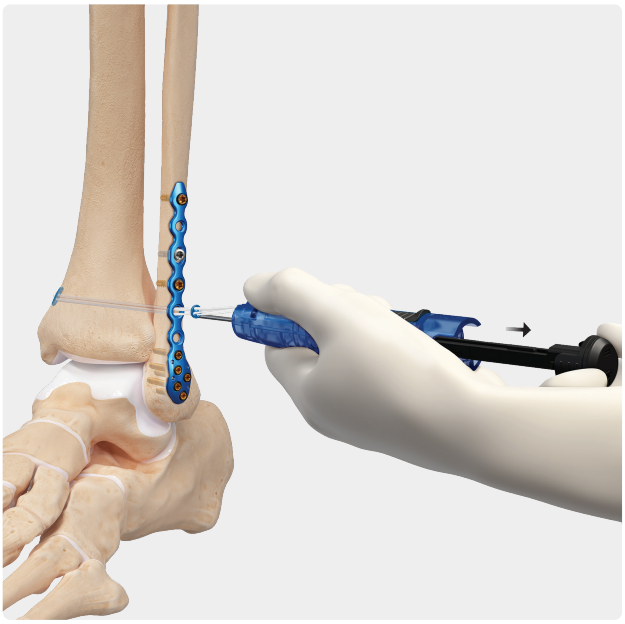




2c

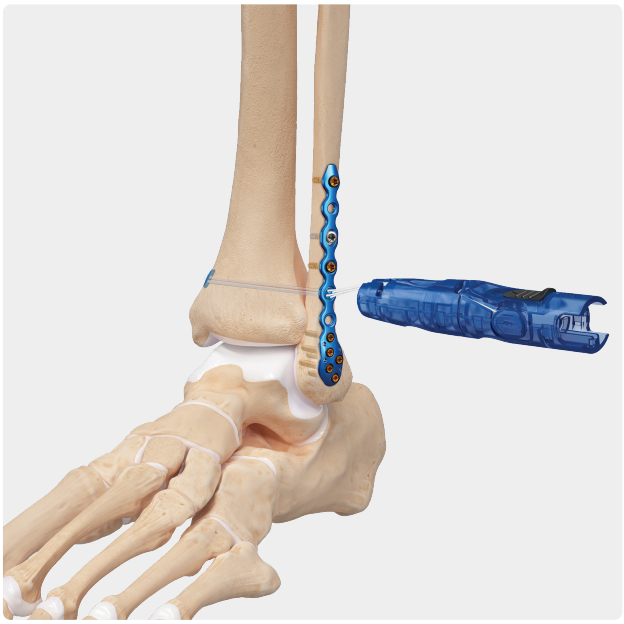
Once the medial button is seated flush on bone, seat the lateral button using the autoreduction mechanism.

While holding the blue handle in one hand, squeeze the two black tabs at the end of the inserter with the other hand to separate the inner rod from the blue handle. Once separated, begin removing the inner deployment rod.



2d

As the inner rod is removed, hold the blue handle in place as the reduction suture slides the lateral button to the fibula.

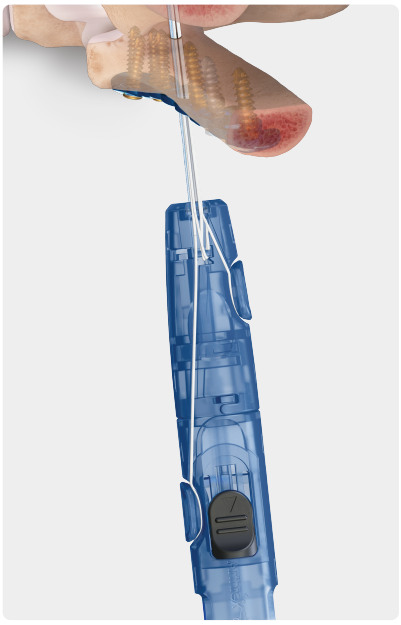


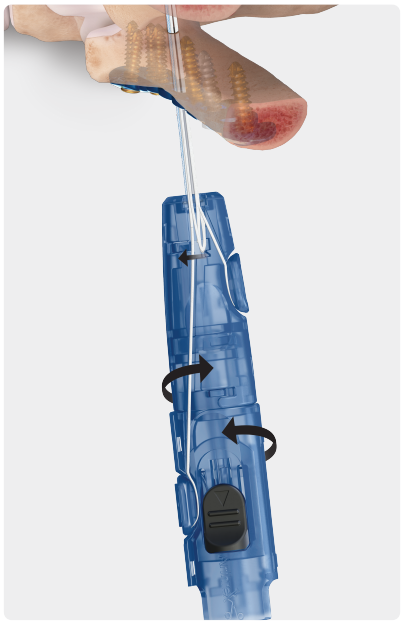
2e

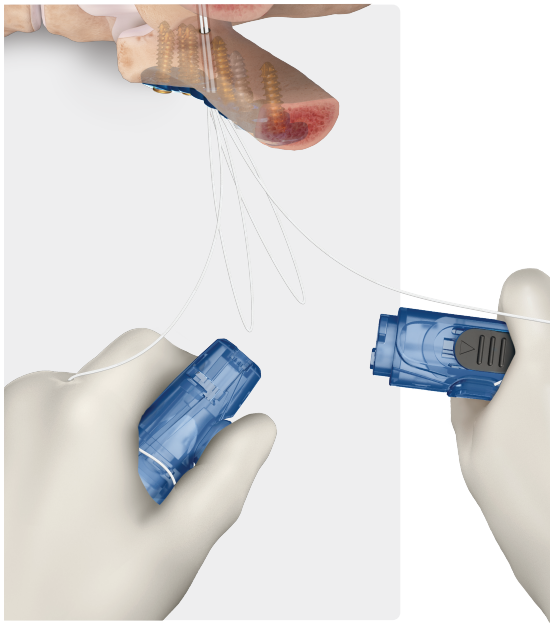
Continue pulling the inner rod until the reduction suture is fully removed.

> **Note:** Maintain a constant tension on the black inner rod and avoid pulling back on the blue portion of the inserter in order to remove the suture smoothly.

Tension

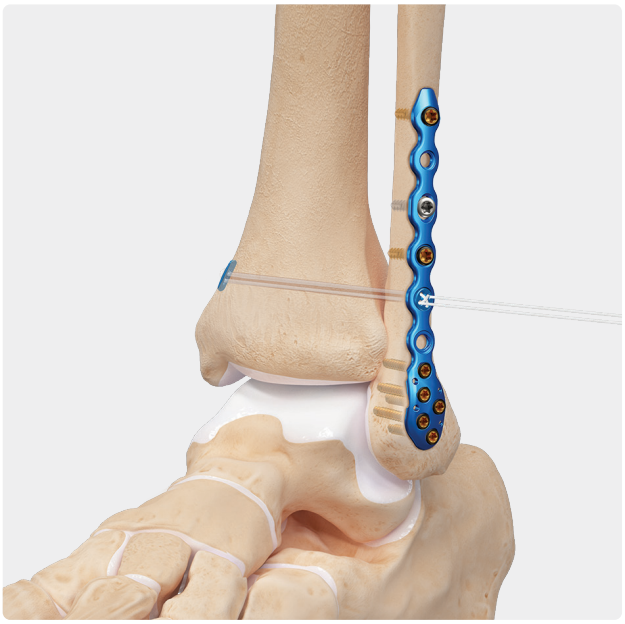






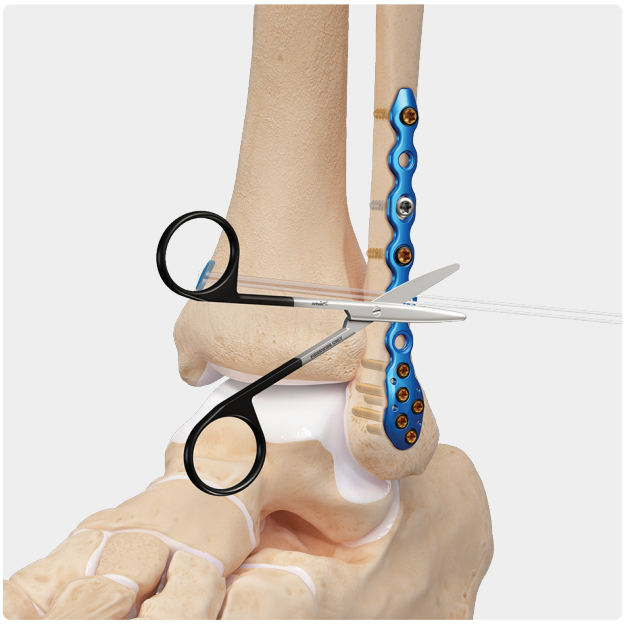
3a

Once the inner deployment rod and reduction suture are removed, the blue suture handles twist apart to release the TightRope® loops and form independent tensioning handles.



3b

Tension the suture in line with the drill tunnel by alternating handles. Roll the suture around the tensioning handle to shorten the working length if desired.



3c

After achieving the desired tension, cut the suture tails.

Optional Technique

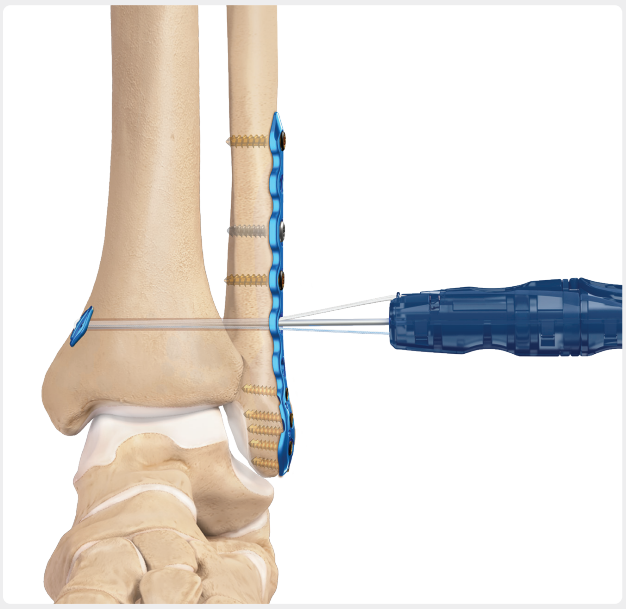
Universal Washer

In cases where an additional button footprint is desired, the universal TightRope® washer may be used to increase the contact area on either medial or lateral cortices.

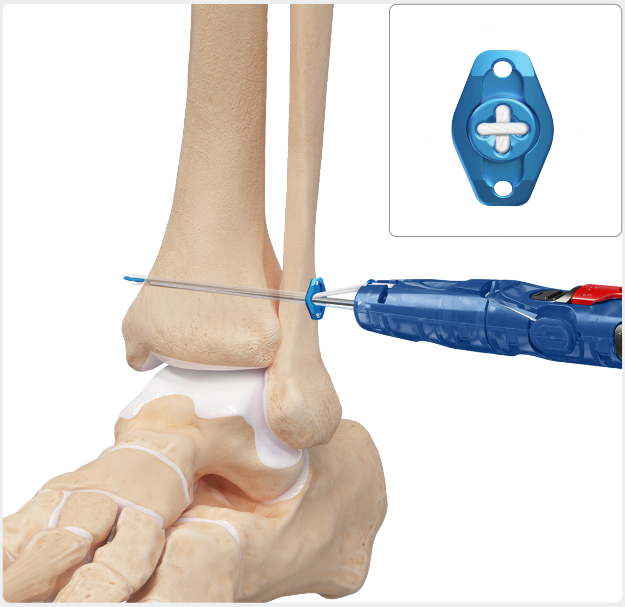
Note: Only one universal washer is included in the TightRope PRO kits. If an additional washer is desired, sterile-packed, single-washer options are available (AR-9925-XX or AR-9925-XX).

Medial

After the button passes through the medial cortex, add the universal TightRope washer on the medial side before deployment.

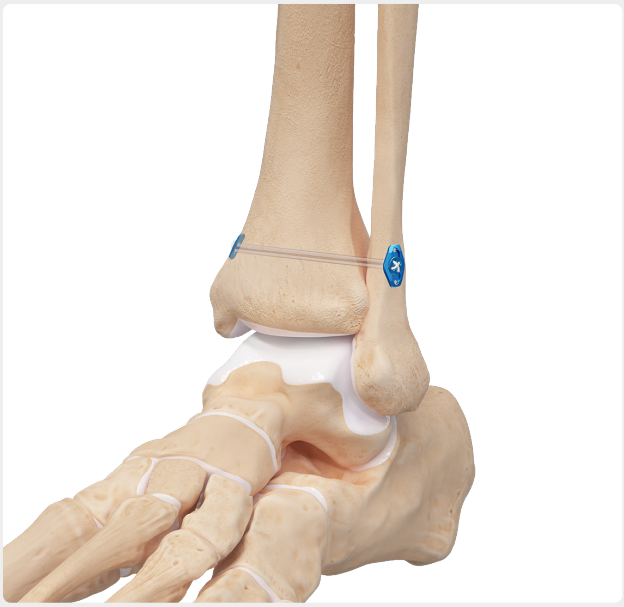


After deployment, position the medial button in the washer and secure down to bone during tensioning.



Lateral

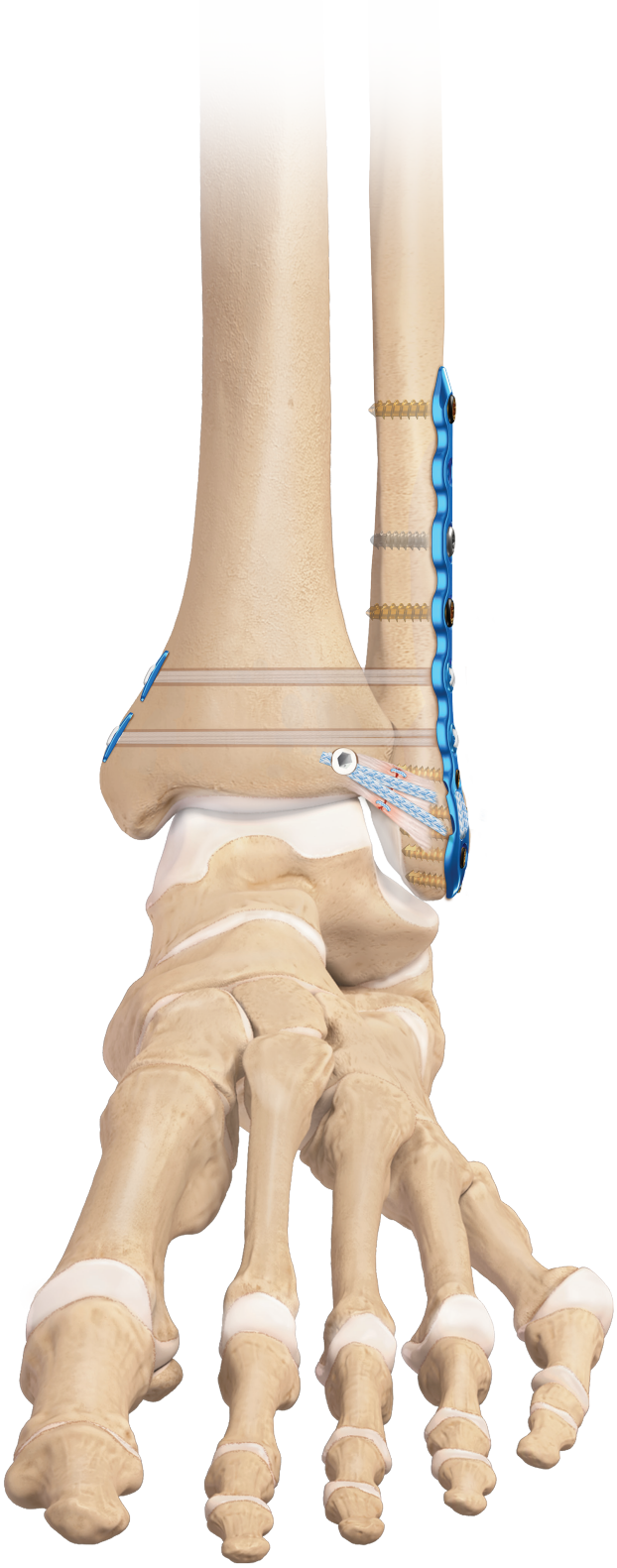
On the lateral side, the universal washer must be added over the end of the inserter prior to passing the implant through the bone tunnel.



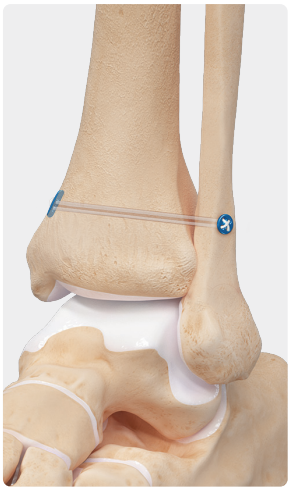
From there, tension the device based on the standard technique.

TightRope® PRO Constructs

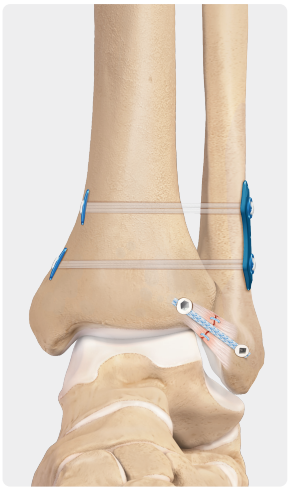
Available in Stainless Steel and Titanium



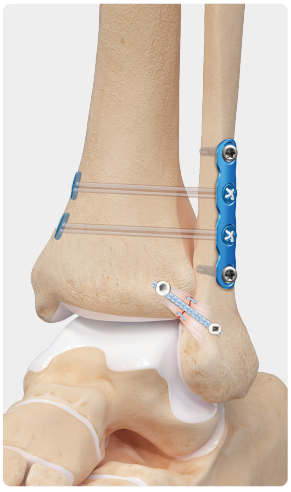
TightRope® PRO + Titanium Ankle Fracture System



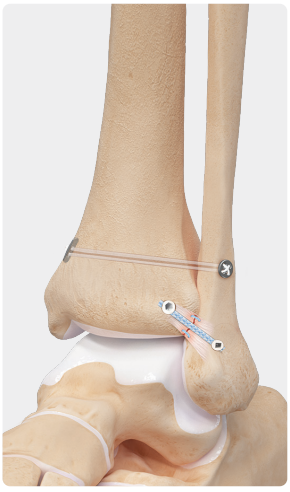
TightRope PRO



TightRope PRO 2-Hole Buttress Plate Kit



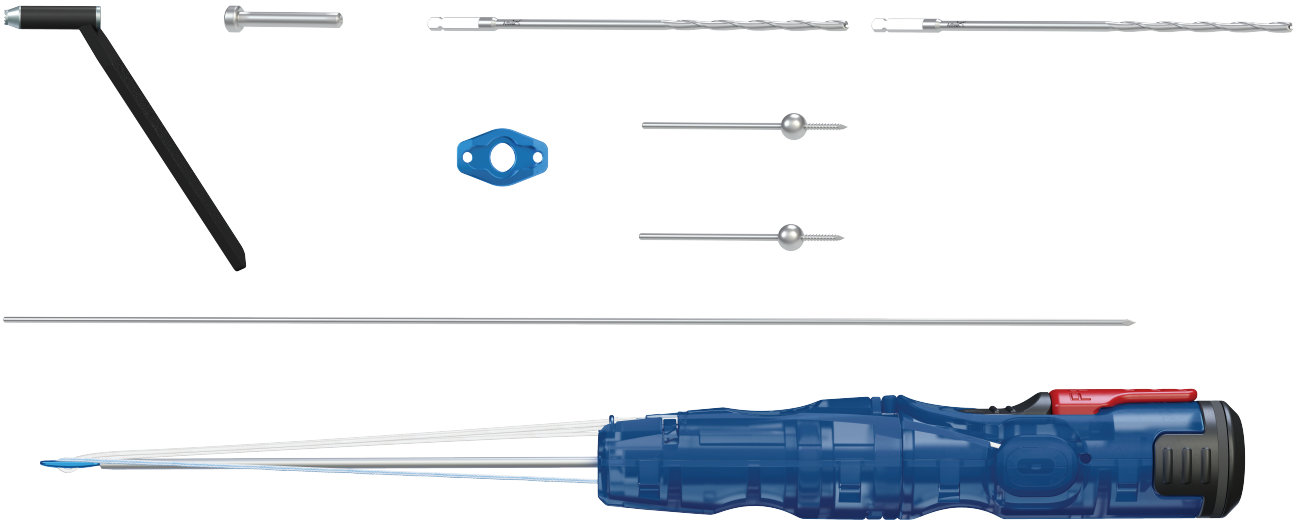
TightRope PRO + 4-Hole Plate



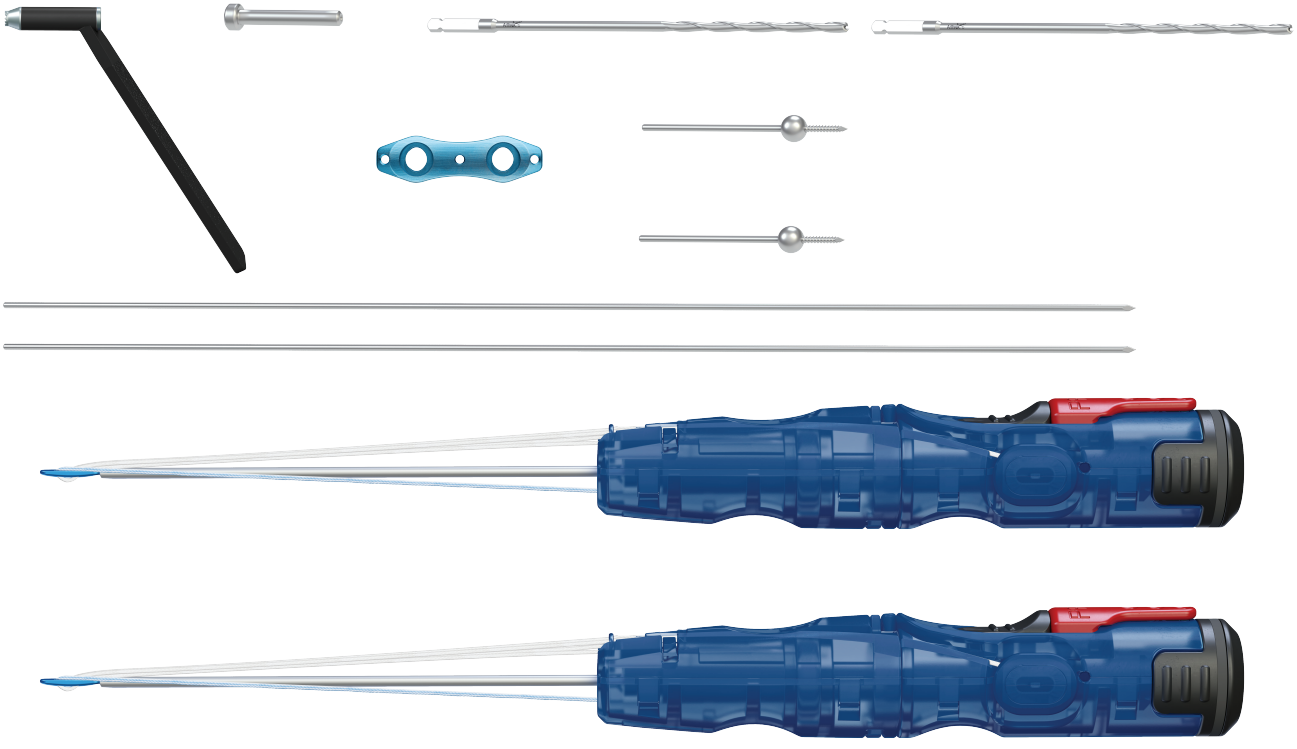
TightRope PRO + AITFL Repair With *Internal*Brace™ Augmentation

Kit Components

Syndesmosis TightRope® PRO Implant System–Available in Titanium or Stainless Steel (AR-9925T, AR-9925SS)



TightRope PRO Buttress Plate Kit–Available in Titanium or Stainless Steel (AR-9925T-BPK, AR-9925SS-BPK)



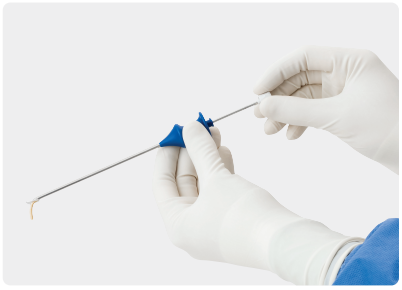
Ordering Information

Syndesmosis TightRope® PRO Kit, SS	AR-9925SS
› TightRope PRO inserter › Drill guide, 3.2 mm › Drill bit, cannulated, 3.2 mm, qty. 2 › BB-Taks, qty. 2 › K-wire insert › K-wire, 1.35 mm › Medial button	
Syndesmosis TightRope PRO Kit, Ti	AR-9925T
› TightRope PRO inserter › Drill guide, 3.2 mm › Drill bit, cannulated, 3.2 mm, qty. 2 › BB-Taks, qty. 2 › K-wire insert › K-wire, 1.35 mm › Medial button	
Syndesmosis TightRope PRO Buttress Plate Kit, Ti	AR-9925T-BPK
› TightRope PRO inserter, qty. 2 › Drill guide, 3.2 mm › Drill bit, cannulated, 3.2 mm, qty. 2 › BB-Taks, qty. 2 › K-wire insert › K-wire, 1.35 mm › 2-hole plate	
Syndesmosis TightRope PRO Buttress Plate Kit, SS	AR-9925SS-BPK
› TightRope PRO inserter, qty. 2 › Drill guide, 3.2 mm › Drill bit, cannulated, 3.2 mm, qty. 2 › BB-Taks, qty. 2 › K-wire insert › K-wire, 1.35 mm › 2-hole plate	
Syndesmosis TightRope PRO washer, SS, implant only	AR-9925SS-W
Syndesmosis TightRope PRO washer, Ti, implant only	AR-9925T-W

Products advertised in this brochure / surgical technique guide may not be available in all countries. For information on availability, please contact Arthrex Customer Service or your local Arthrex representative.

Biologic Augmentation Options

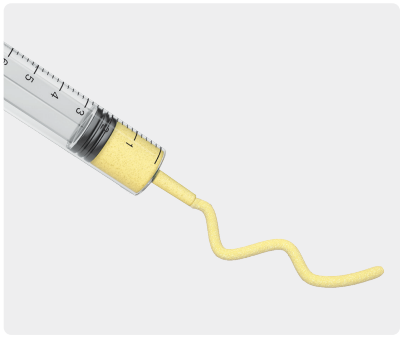
Better with BIO™



BioCartilage Extracellular Matrix

Treat concomitant cartilage defects with a readily available cartilage matrix. BioCartilage contains the extracellular matrix that is native to articular cartilage, including key components such as type II collagen, proteoglycans, and additional cartilaginous growth factors.

BioCartilage extracellular matrix, 1 cc Foot & Ankle	ABS-1007-BC



AlloSync™ Putty, Gel and Paste

AlloSync putty, gel, and paste grafts provide ease of use with optimized handling characteristics via reverse-phase medium carrier. Every lot of DBM is tested for osteoinductive potential with additional scaffolding.

AlloSync DBM Putty, 1 cc	ABS-2012-01
AlloSync DBM Putty, 2.5 cc	ABS-2012-02
AlloSync DBM Gel, 1 cc	ABS-2013-01
AlloSync CB DBM Paste, 1 cc	ABS-2015-01
AlloSync CB DBM Paste, 3 cc	ABS-2015-03

AlloSync™ Pure Matrix

AlloSync Pure is a DBM derived from 100% allograft bone with no extrinsic carriers. Surgeons can adjust the viscosity of AlloSync Pure bone matrix to have a more flowable or putty-like consistency based on hydration ratio to readily mold into various bone voids.

AlloSync Pure, 2.5 cc	ABS-2010-02

JumpStart® Dressings

JumpStart antimicrobial wound dressings are composed of advanced microcurrent-generating technology, when hydrated with Engergel Hydrogel, used for the management of surgical incision sites. JumpStart dressings can be applied directly over sutures, staples, Steri-Strip wound closures, and liquid skin adhesives.

JumpStart 2 in × 5 in contact layer dressing	ABS-4025
JumpStart Composite dressing, 1.5 in × 5 in	ABS-4051
JumpStart ClearFit, 3.5 in × 2 in	ABS-4063
JumpStart FlexEFit dressing	ABS-4060-05
Energel Wound Hydrogel	AGL-L075-10
JumpStart antimicrobial composite wound dressing, adhesive border 2.5 in diameter	ABS-4054

The *Internal*Brace surgical technique is intended only to augment the primary repair/reconstruction by expanding the area of tissue approximation during the healing period and is not intended as a replacement for the native ligament. The *Internal*Brace technique is for use during soft tissue-to-bone fixation procedures and is not cleared for bone-to-bone fixation

This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes.

Arthrex manufacturer, authorized representative, and importer information (Arthrex eIFUs)

US patent information

arthrex.com