

Lateral Ankle Instability Repair

Brostrom Repair using Draw Tight™ DEX Suture-Based Anchors
Ligament Augmentation Repair using Twist SST PEEK Screw-In
Anchor with Twist Knotless DEX PEEK Screw-In Anchor
Surgical Technique Guide

Lateral Ankle Instability Repair

Brostrom Repair using Draw Tight DEX Suture-Based Anchors

* Position the patient in a supine position with a bump under the ipsilateral hip. General anesthesia can be used along with a tourniquet. If arthroscopy is indicated prior to the open repair, take care to protect the branches of the superficial peroneal nerve with the development and use of the lateral portal. Examine and identify any intra-articular pathology that needs to be addressed prior to proceeding with the open portion of the case.



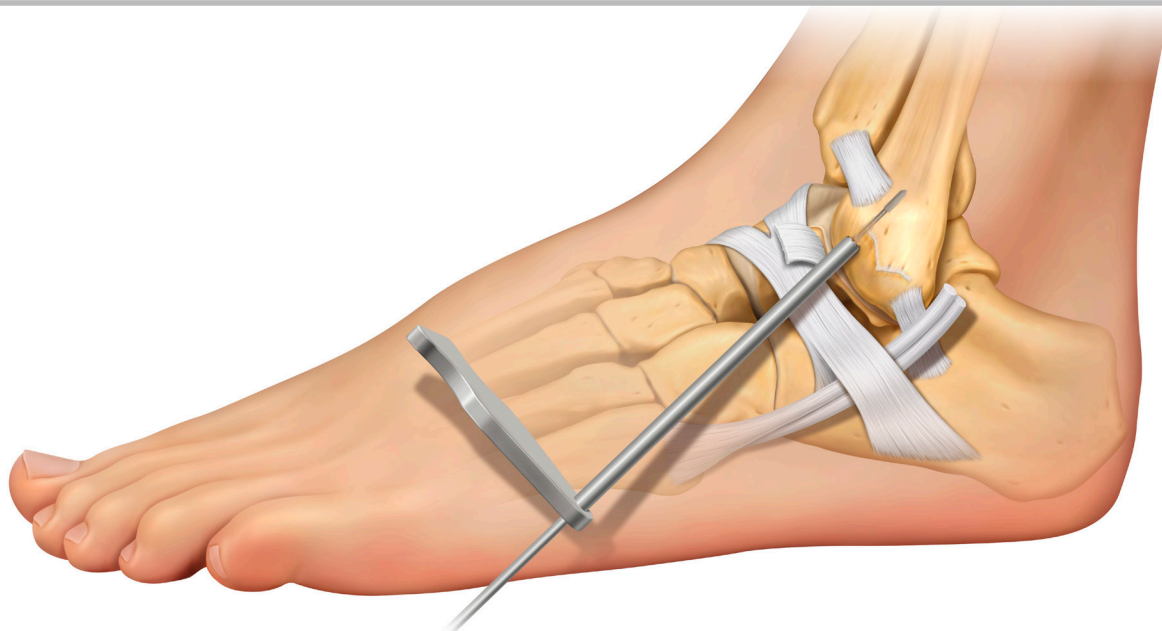
step
1

Make a curvilinear extensile approach centered over the tip of the distal fibula. Although the approach to the lateral ankle is largely through an internervous plane, be mindful of low lying sensory branches of the peroneal nerve and protect with retractors accordingly.



step
2

Detach the anterior talofibular ligament (ATFL) footprint from the fibula through sharp dissection. Use a rongeur to decorticate the surrounding bone to promote healing.



step
3

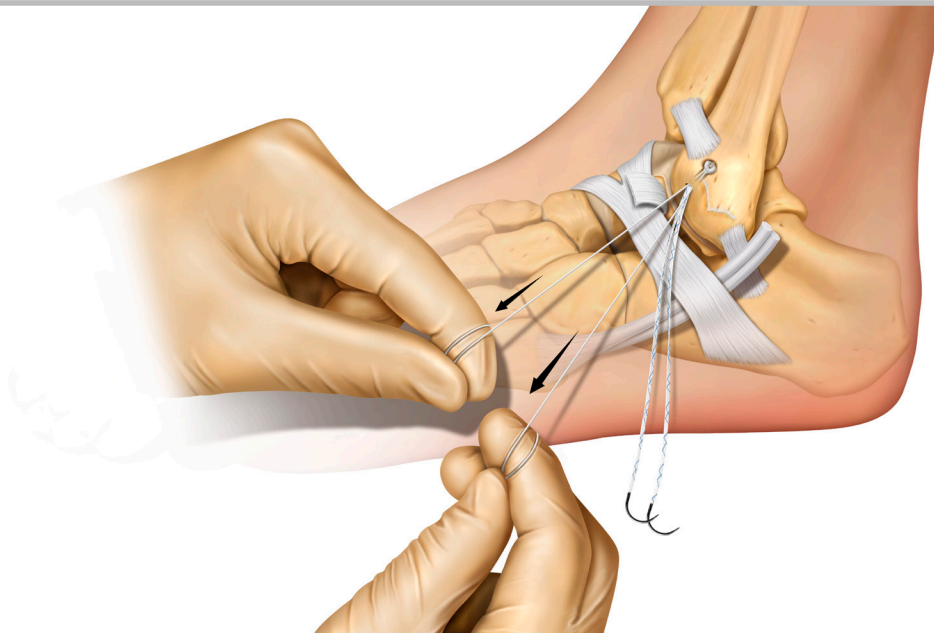
Drill the distal fibula using the beaver tail handle drill guide (10823) and the 1.8mm drill bit (10873U). Consideration should be given to the angle of the drill. The drill should be directed anterior to posterior and slightly lateral to avoid penetrating the medial cortex or violating the inner joint space. Advance the drill bit until the positive stop contacts the drill guide handle.

Lateral Ankle Instability Repair

Brostrom Repair using Draw Tight DEX Suture-Based Anchors



step 4 Leave the drill guide in place and insert the 1.8mm Draw Tight DEX (11034) Suture-Based Anchor through the drill guide into the prepared hole in the distal fibula. Mallet the suture anchor through the drill guide to the positive stop on the implant handle. Release the sutures and needles, freeing them from the implant handle.



step 5 The drill guide and implant handle may be removed. Identify the all-white sutures. Deploy the implant by pulling one of the white sutures until solid resistance is felt. Pull the second white suture in the same fashion to secure the anchor in bone for initial deployment. Following deployment, drop the white sutures and pull the blue and white striped sliding sutures to confirm fixation. Alternatively, the implant handle may be left in the socket (after the sutures and needles have been freed from the handle). The all-white sutures are pulled one at a time until solid resistance to the movement of the suture is felt. Then the blue and white striped sliding sutures may be pulled to confirm implant fixation.

Lateral Ankle Instability Repair

Brostrom Repair using Draw Tight DEX Suture-Based Anchors



step
6

Repeat steps 3-5 to insert a second 1.8mm Draw Tight DEX (11034) Suture-Based Anchor to repair the inferior aspect of the ATFL capsuloligamentous complex. Alternatively, this anchor can also be placed further inferior on the tip of the fibula to perform a direct repair of the calcaneofibular ligament (CFL) if indicated.



step
7

Pass the white/blue Parcus Braid® suture tape with needles from each suture anchor through the ATFL/ankle joint capsule. Placing the leg on a bump to leave the heel free and avoid anterior translation of the ankle joint, hold the ankle in slight dorsiflexion and maximal eversion and tie the sutures firmly against the fibula.

Alternative Implant Options:

3.2MM DRAW TIGHT

The 3.2mm Draw Tight (11288 or 11289) may be used instead of the 1.8mm Draw Tight DEX. Use associated drill (10505U) and drill guide (10823) to prepare bone for 3.2mm implant. (Free needle is required for the 3.2mm Draw Tight implant.)

3.5MM PEEK CF PUSH-IN ANCHOR W/NEEDLES

Alternatively, the 3.5mm PEEK CF Push-In Anchor w/Needles (10407) may be used in place of the 1.8mm Draw Tight DEX. The following steps may be performed to incorporate the 3.5mm PEEK CF implant into the technique.

Use the 3mm drill with positive stop (10482U) and 8-point drill guide with beaver tail handle (10823) to prepare the distal fibula for a 3.5mm PEEK CF Push-In Anchor with two #2 Parcus Braid w/Needles (10407). Insert the 3.5mm PEEK CF Push-In Anchor.

Lateral Ankle Instability Repair

Ligament Augmentation Repair using Twist PEEK Screw-In Anchor with Twist Knotless DEX PEEK Screw-In Anchor

OPTIONAL LIGAMENT AUGMENTATION TECHNIQUE:

* Strategic placement of anchors within the footprint of the distal fibula should be planned to avoid convergence of anchors when performing an augmented repair.



Ligament Augmentation Technique

step
1

Drill the lateral talus using the 4mm drill guide (11241) and the 4mm drill bit (11000U). The drill should be positioned at a 10° to 20° angle up from the plantar surface of the foot and at a 45° angle into the body of the talus to safely avoid the subtalar joint. For further assistance, utilize fluoroscopy to confirm appropriate trajectory and starting point placement. Advance the drill bit until the positive stop contacts the drill guide handle. Tap the talus using the 4.5mm tap (10609).



Ligament Augmentation Technique

step
2

Insert the 4.5mm Twist Static Suture Tape (SST) PEEK Screw-In anchor with one 2mm suture tape (11349 or 11350) into the prepared bone hole. Insert implant until laser line on the insertion handle is flush to the bone. Remove insertion handle.



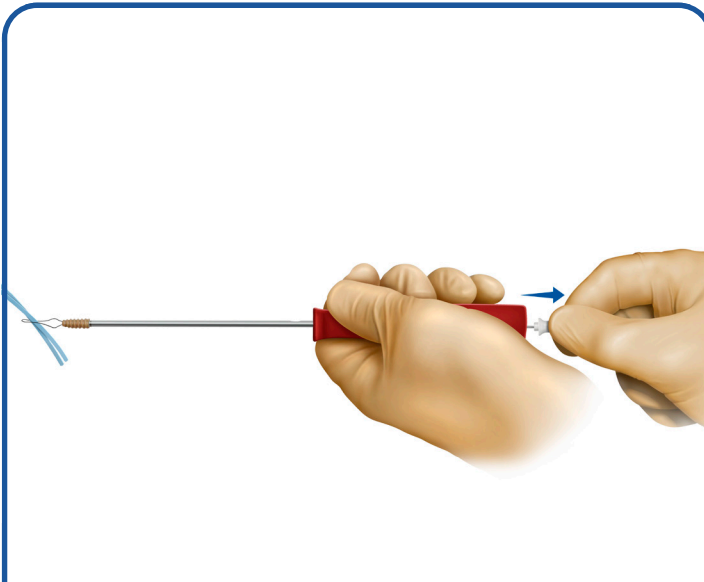
Ligament Augmentation Technique

step
3

Drill a proximal hole into the fibula using the 4mm drill guide (11241) and the 4mm drill bit (11000U). This should be placed slightly lateral to the capsular repair suture construct to avoid disruption or crowding of that repair. Consideration should also be given to the angle of the drill. The drill should be directed anterior to posterior and slightly lateral of the midline to avoid penetrating the medial fibular cortex and damaging the lateral ankle joint. Advance the drill bit until the positive stop contacts the drill guide handle.

Lateral Ankle Instability Repair

Ligament Augmentation Repair using Twist PEEK Screw-In Anchor with Twist Knotless DEX PEEK Screw-In Anchor



Ligament Augmentation Technique

step
4

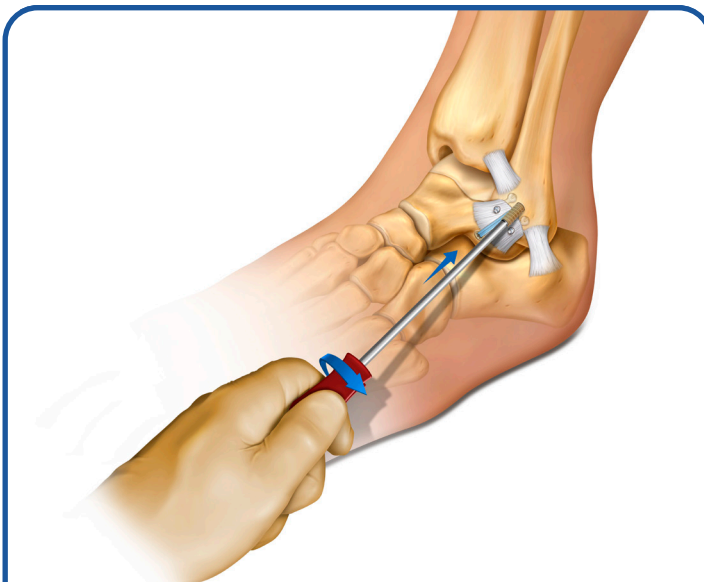
Load the suture tape tails into the Twist Knotless DEX (11259) suture threader. The threader tab is pulled to shuttle the sutures through the cannulation of the Twist Knotless DEX anchor body and inserter.



Ligament Augmentation Technique

step
5

While applying light tension on the suture tape tails, introduce the Twist Knotless DEX anchor into the proximal fibula. While maintaining position of the Twist Knotless DEX insertion handle, pull the suture tape tails individually to set desired tension.



Ligament Augmentation Technique

step
6

Once desired tension is achieved, release suture tape tails. With pressure, advance the Twist Knotless DEX anchor rotating the inserter clockwise until the anchor is fully inserted and flush with the bone. Proper insertion depth is marked by the horizontal laser line on the inserter shaft.



Ligament Augmentation Technique

step
7

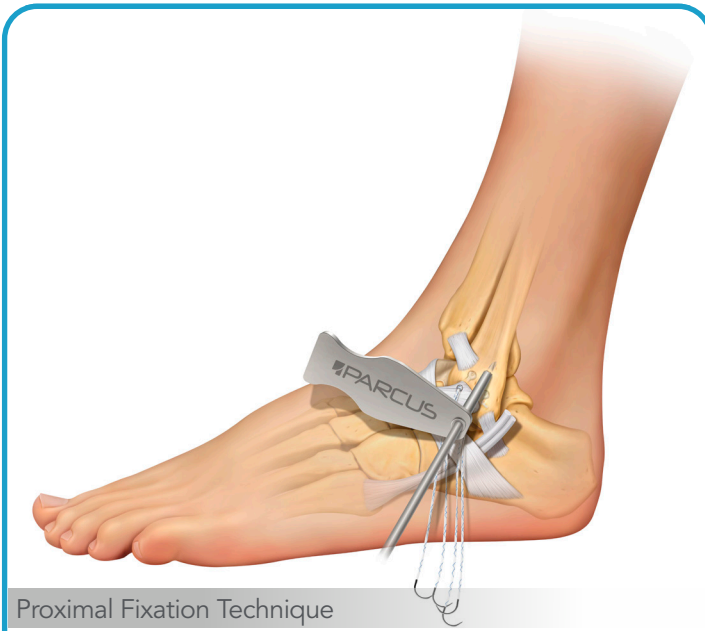
Once the Twist Knotless DEX anchor is fully seated to the desired depth, disengage the driver by pulling back. Cut suture tape tails to complete the ligament augmentation repair.

Lateral Ankle Instability Repair

Brostrom Repair using Draw Tight DEX Suture-Based Anchors and Knotless PEEK CF Anchor

OPTIONAL PROXIMAL FIXATION:

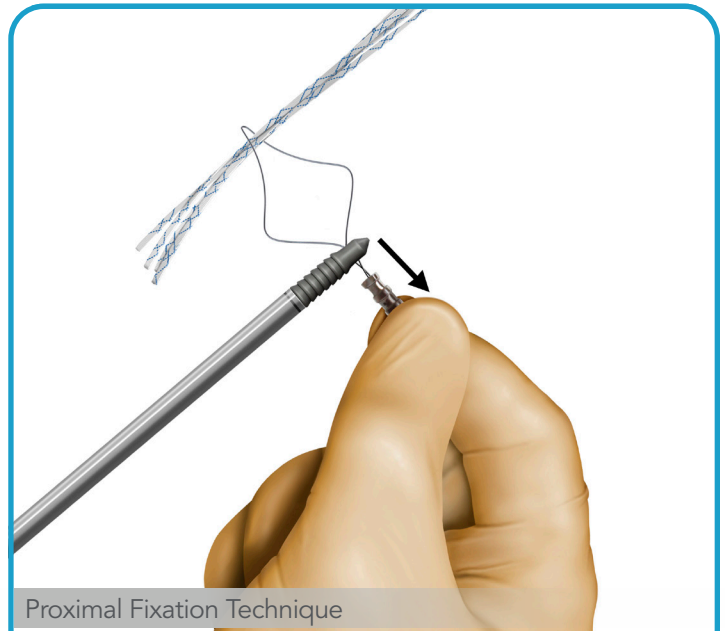
*A suture bridge construct with use of knotless anchor(s) may be incorporated to further strengthen the repair construct, optimize tissue to bone surface area contact and healing, and minimize any prominence of knots.



Proximal Fixation Technique

step
1

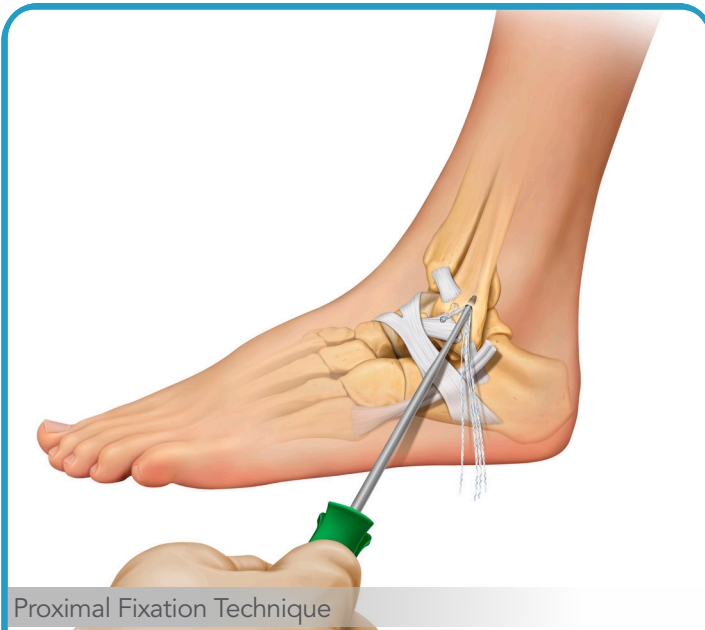
For proximal fixation, a 3.5mm Knotless PEEK CF anchor (10994) may be used to provide additional fixation in combination with the suture anchors. Drill the proximal hole into the fibula using the beaver tail handle drill guide (10823) and the 3mm drill bit with positive stop (10482U) to prepare the hole for the Knotless anchor.



Proximal Fixation Technique

step
2

Cut needles off remaining suture tails. Take each suture tail from the superior and inferior anchors and using the suture threader, pass tails through the eyelet of the Knotless PEEK CF anchor.



Proximal Fixation Technique

step
3

Hold the ankle in slight dorsiflexion and maximal eversion to tension the suture tapes and insert the Knotless PEEK CF anchor into the prepared anterior proximal fibula hole.



Proximal Fixation Technique

step
4

Cut remaining suture tape tails flush to the Knotless anchor to complete the ATFL repair construct.

Alternatively, two 2.8mm Knotless PEEK CF anchors (10312) may be used for a proximal double row configuration using the beaver tail handle drill guide (10823) and the 2.8mm drill bit with positive stop (10874U) to prepare two holes proximal to the Draw Tight anchors.

In this configuration, take one suture tail from each Draw Tight anchor, passing the tails through the eyelet of the 2.8mm Knotless PEEK CF anchor using the suture threader. Perform this same step for the corresponding 2.8mm Knotless anchor to create a bridging construct.

Draw Tight *Suture-Based Anchors*



Draw Tight Suture-Based Anchors are recommended for use in both large and small-joint repairs. Made with UHMWPE and PEEK-OPTIMA® Natural power tip.

Features & Benefits

Small insertion footprint & sub-cortical fixation

- Bone sparing

Deployment sutures

- Tactile confirmation the anchor has been successfully deployed

PEEK power tip

- Delivers improved insertion and a solid core for stronger fixation

Draw Tight DEX Suture-Based Anchors

| Part # | Diameter (mm) | Description | Material |
|--------|---------------|--|---------------|
| 11034 | 1.8 | Draw Tight DEX, push-in, suture anchor, w/1, 1.6mm suture tape (wht/blu), w/needles (MO-6) | UHMWPE & PEEK |

Instrumentation for Draw Tight DEX Suture-Based Anchors

| Part # | Diameter (mm) | Description | Sterile/ Non-sterile | Single-use/ Reusable |
|--------|---------------|---|----------------------|----------------------|
| 10873U | 1.8 | 1.8 Draw Tight, drill bit, w/positive stop | Non-sterile | Reusable |
| 10823 | - | 8-point slotted drill guide, w/beaver tail handle | Non-sterile | Reusable |



Twist SST *PEEK Screw-In Suture Anchor*

Twist PEEK Screw-In Suture Anchors are recommended for use in both large and small-joint repairs.

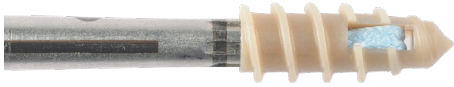
Features & Benefits

Fully-threaded design

- Optimal cortical fixation
- Reduces the risk of “pull-back”

Made of PEEK-OPTIMA Natural

- Non-absorbable
- Bio-inert*
- Radiolucent
- MR safe



Twist SST PEEK Screw-In Suture Anchors w/One Static 2mm Suture Tape

| Part # | Diameter (mm) | Description | Material |
|--------|---------------|--|----------|
| 11349 | 4.5 | Twist SST, screw-in, suture anchor, w/1 static 2mm suture tape (blu) | PEEK |
| 11350 | 4.5 | Twist SST, screw-in, suture anchor, w/1 static 2mm suture tape (blk) | PEEK |
| 11351 | 5.5 | Twist SST, screw-in, suture anchor, w/1 static 2mm suture tape (blu) | PEEK |
| 11352 | 5.5 | Twist SST, screw-in, suture anchor, w/1 static 2mm suture tape (blk) | PEEK |

Parcus Braid Infinity Loop

| Part # | Size | Description | Material |
|--------|-------|--|----------|
| 20056S | #2 | Parcus Braid, infinity loop (wht/blu), w/needle | UHMWPE |
| 20174S | 1.6mm | Parcus Braid, suture tape infinity loop (wht/blu) w/needle | UHMWPE |

Twist SST PEEK Screw-In Suture Anchors Instrumentation

| Part # | Description | Sterility | Single-use/ Reusable |
|--------|---|-------------|-------------------------|
| 11000U | 4.0mm Drill (for use with Twist SST and Knotless DEX Anchors) | Non-Sterile | Reusable |
| 11241 | 4.0 x 100mm drill guide, 6-point | Non-Sterile | Reusable |
| 10365 | 3.2mm Awl (for use with 4.5mm Twist SST Anchor) | Non-Sterile | Reusable |
| 10338 | 4.1mm Awl (for use with 4.5mm, 5.5mm and 6.5mm Twist SST Anchors) | Non-Sterile | Reusable |
| 10609 | Punch/tap for 4.5mm Twist SST Anchor | Non-Sterile | Reusable |
| 10277 | Punch/tap for 5.5mm or 6.5mm Twist SST Anchors | Non-Sterile | Reusable |
| 10222 | Punch/tap for 5.5mm or 6.5mm Twist SST Anchors, hudson | Non-Sterile | Reusable |



* “Bio-inert to reduce the possible risk of patient reaction.” <https://invibio.com/ortho/shoulder-arthroscopy>

Twist Knotless DEX *Screw-In Suture Anchors*



Twist Knotless DEX was designed to be extremely reliable and strong. The fully threaded screw-in knotless anchor is ideally suited for Achilles repair.

Features & Benefits

Knotless

- Provides a step-saving alternative to conventional “knotted” suture anchors
- Eliminates “knot stacks” associated with soft tissue irritation

Fully threaded design

- Provides cortical fixation
- Reduces the risk of “pull-back”

Made of PEEK-OPTIMA Natural

- Non-absorbable
- Bio-inert
- Radiolucent
- MR safe

Twist Knotless DEX

| Part # | Diameter (mm) | Description | Material |
|--------|---------------|--|----------|
| 11259 | 4.75 | Twist Knotless DEX, screw-in, suture anchor, w/suture passer | PEEK |
| 11260 | 5.5 | Twist Knotless DEX, screw-in, suture anchor, w/suture passer | PEEK |

Twist Knotless DEX Instrumentation

| Part # | Description | Sterility | Single-use/ Reusable |
|--------|---|-------------|----------------------|
| 11000U | 4.0mm Drill (for use with Twist SST and Knotless DEX Anchors) | Non-Sterile | Reusable |
| 11241 | 4.0 x 100mm drill guide, 6-point | Non-Sterile | Reusable |
| 10338 | 4.1mm Awl (for use with Twist Knotless DEX Suture Anchors) | Non-Sterile | Reusable |
| 11139 | Punch/tap for 4.75mm Twist Knotless DEX | Non-Sterile | Reusable |

Knotless PEEK CF *Push-In Anchor*



Features & Benefits

Made of carbon fiber-reinforced PEEK-OPTIMA

- Non-absorbable, radiolucent, and MR safe
- Modulus of elasticity closely matching cortical bone

Knotless

- Provides a step-saving alternative to conventional "knotted" suture anchors
- Eliminates "knot stacks" associated with soft tissue irritation

Knotless PEEK CF Push-In Suture Anchors

| Part # | Diameter (mm) | Length (mm) | Description | Material |
|--------|---------------|-------------|--|----------|
| 10994 | 3.5 | 10 | 35 Knotless, push-in, suture anchor, w/suture passer | PEEK CF |
| 10312 | 2.8 | 10 | 28 Knotless, push-in, suture anchor, w/suture passer | PEEK CF |
| 10313 | 3.5 | 10 | 35 Knotless, push-in, suture anchor (implant only, driver not included), w/suture passer | PEEK CF |

Instrumentation for Knotless PEEK CF Push-In Suture Anchors

| Part # | Diameter (mm) | Description | Sterile/ Non-sterile | Single-use/ Reusable |
|--------|---------------|---|-------------------------|-------------------------|
| 10483 | - | 35 Knotless suture anchor driver* | Non-sterile | Reusable |
| 10482U | 3 | Drill bit, w/positive stop | Non-sterile | Reusable |
| 10823 | - | 8-point slotted drill guide, w/beaver tail handle | Non-sterile | Reusable |
| 10874U | 2.8 | 28 Knotless drill bit, w/positive stop | Non-sterile | Reusable |

*Required for implant 10313. Implant 10994 includes a driver.





Parcus has joined **Anika**

Parcus Medical, LLC

6423 Parkland Dr., Sarasota, FL

1-877-746-2972 · www.anika.com

ParcusCS@anika.com

©2022 Anika Therapeutics, Inc. | QD 8108 | AML 900-310 Rev. 02 | 07/2022

Anika, Parcus, Parcus Braid, and Draw Tight are trademarks and/or registered trademarks of Anika Therapeutics, Inc. and its affiliates in certain jurisdictions. PEEK-OPTIMA is a registered trademark of Invivo Limited Corporation.