The ONLY Complete Tendon Transfer System

Arthrex

Bio-Tenodesis™

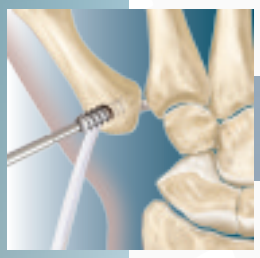
Screw System

Knee

Lateral and Medial Collateral Ligament Repair and Secondary Fixation of an ACL Soft Tissue Graft

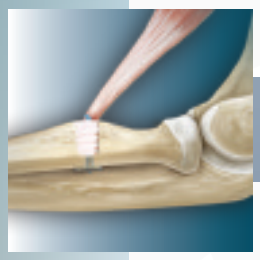
Foot & Ankle

Achilles, Lateral Stabilizations and FDL, FHL Tendon Transfers



Hand

Ligament Reconstruction Tendon Interposition (LRTI), Scapholunate Ligament Reconstruction and Collateral Ligament Reconstruction



Elbow

UCL and Distal Biceps Tendon Repair

Shoulder

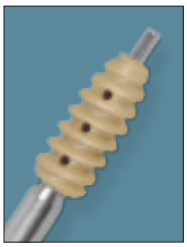
Proximal Biceps Tendon Repair and Rotator Cuff Repair

BioComposite and PEEK Screws

The Bio-Tenodesis Screw System

The Bio-Tenodesis Screw System eliminates transosseous tunnels in tendon repairs and ligament reconstructions. Tenodesis Screws may be used in conjunction with #2 or 2-0 FiberWire® to facilitate intraoperative tissue-tensioning and fixation in a predrilled socket. The predrilled socket minimizes incision length, dissection and overall morbidity. BioComposite and vented PEEK Tenodesis screw insertion provides superior and immediate fixation for foot and ankle indications such as Achilles repair, FDL, FHL tendon transfers and lateral ligament stabilization. The system can also be used for applications in the hand and elbow (UCL, LRTI, SL reconstruction, distal biceps), shoulder (rotator cuff repair, proximal biceps), as well as collateral ligament repair/reconstruction and secondary graft or suture fixation for ACL/PCL reconstruction. This construct allows for direct tendon-to-bone healing, without hardware prominence.

BioComposite Tenodesis Screw



PEEK Tenodesis Screw (vented)

AR-1350D

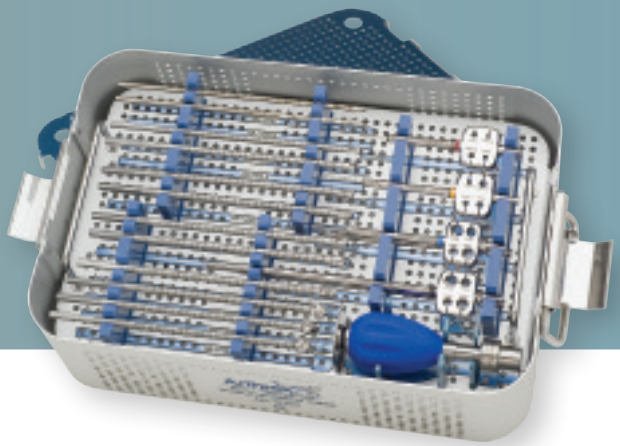
AR-1570DB with Tear Drop Handle w/Suture Cleat, AR-2001BT

Strongest Fixation Strength

The chart below demonstrates the average load-to-failure force of the Bio-Tenodesis Screw compared to the Mitek GII Suture Anchor. The testing was performed to determine the mechanical strength of fixation of a biceps tendon by the Bio-Tenodesis Screw in a bone socket. The Bio-Tenodesis Screw fixation of the biceps tendon was inserted into a socket in the proximal humerus in cadaveric bone. The results indicate that Bio-Tenodesis Screws behave in a mechanically superior fashion, when compared to the Mitek GII Suture Anchors (57 lbs vs. 24 lbs).*

Average Load-to-Failure

**data on file*

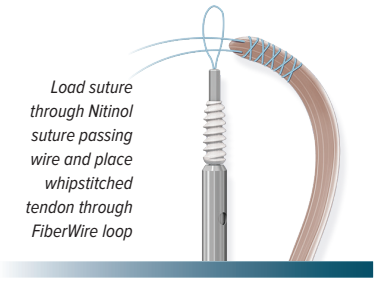


Bio-Tenodesis Master Instrument Set – AR-1675S

Disposable Tenodesis Driver – AR-1555DS*

Creation of the FiberWire Suture Loop

The surgeon must create a FiberWire loop at the tip of the driver to snare the tendon so it can be placed in the bone tunnel. The FiberWire loop is created by a disposable Nitinol suture passing wire and #2 FiberWire found in the Bio-Tenodesis Disposables Kit. Snare the tip of the whipstitched tendon 2 mm from the end of the graft. Place tension on the sutures exiting the back of the Tear Drop Handle and wrap them once around the O-ring inside the cleat as shown. It is important to maintain maximum tension between the driver tip and the tendon during initial placement of the tendon in the tunnel.

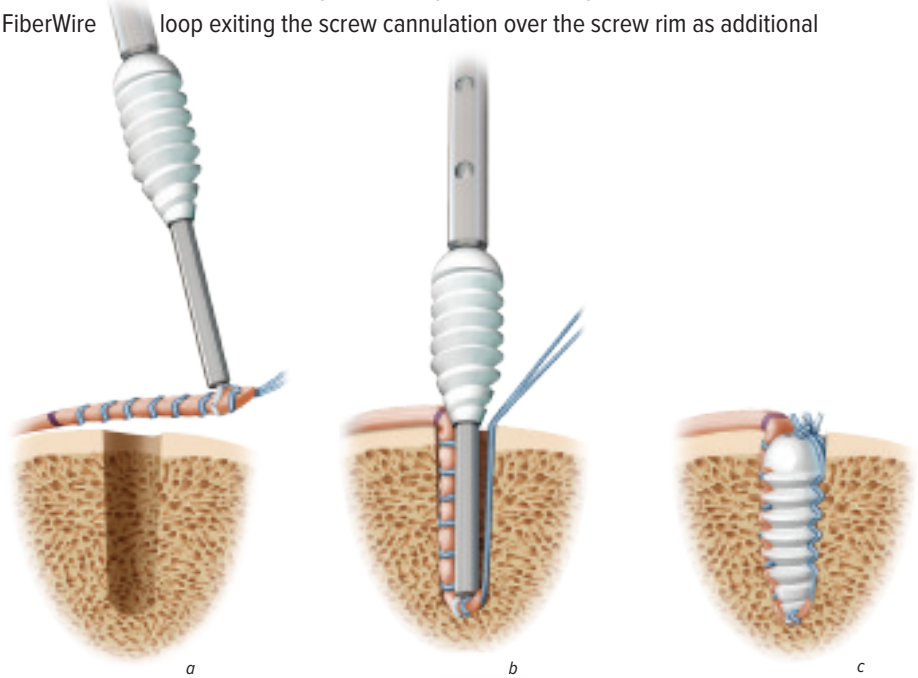


Load suture through Nitinol suture passing wire and place whipstitched tendon through FiberWire loop

Snare tendon

Surgical Technique: Tendon or Graft Fixation

An anatomic attachment site is determined and a 2.4 mm Guide Pin is inserted with a power drill. A bone socket is created to a depth 2 mm longer than the screw used. An optional tap may be used, if extra hard bone is encountered. The tendon graft is anatomically tensioned over the socket and a methylene blue line is drawn on the tendon at the inner socket rim to mark the appropriate tensioned graft length. The appropriately sized screw is inserted onto the Tenodesis Driver and a FiberWire suture loop is created and positioned around the tendon the length of the screw, away from the methylene blue mark (a). The extended Tenodesis Driver tip is inserted into the socket with the graft end until the methylene blue mark lies over the socket rim (b). The screw is inserted, maintaining tension on the graft. After full insertion of the screw, the driver is removed and graft passing sutures exiting the screw/socket interface are tied with the FiberWire loop exiting the screw cannulation over the screw rim as additional fixation (c).



a *b* *c*

Note: Please use the reference chart to help select the appropriate implant, driver and diameter for the reamed socket.

Wrap suture around cleat

Lateral Ankle Reconstruction Implant System – AR-1675BC-CP

Bio-Tenodesis Disposables Kit AR-1676DS

Disposables Kits

The Bio-Tenodesis Screw product line includes a disposables kit (AR-1676DS), to be used in conjunction with the master set, AR-1675S. AR-1530DS is a complete kit with disposables and instrumentation. Combining the necessary accessories for most distal extremity surgical solutions, customers will now be able to stock a complete Tenodesis System which supports all of our Tenodesis Screws, simplifying OR stocking.

Bio-Tenodesis Disposables Kit (AR-1676DS) includes:

Short Guide Pin w/eyelet 2.4 mm, Suture Passing Wire, #2 FiberLoop w/Straight Needle, two #2 FiberWire, two 2-0 FiberWire, 6" Ruler

Bio-Tenodesis Disposables Kit for 3 mm x 8 mm Screw (AR-1530DS) includes:

Guidewire .041" (1 mm), Suture Passing Wire, 2-0 FiberWire w/Needle, Cannulated Drills 2.5 mm, 3 mm and 3.5 mm

Lateral Ankle Reconstruction Implant System

The highly anticipated release of the Lateral Ankle Reconstruction Implant System is now available. The implant kit delivers the gold standard interference screw fixation that surgeons have counted on for 11 years. The implant kit includes BioComposite Tenodesis Screws, instruments and accessories reducing OR inventory and sterilization costs. By using a free graft to recreate the ATFL and CFL ligaments, surgeons are able to achieve a reproducible, rigid and anatomic reconstruction necessary for patients with ligamentous laxity or surgical revisions.

Lateral Ankle Reconstruction Implant System (AR-1675BC-CP) includes:

BioComposite Tenodesis Screws on Disposable Tenodesis Driver:
- 4.75 mm x 15 mm (fibula)
- 5.5 mm x 15 mm (talus)
- 6.25 mm x 15 mm (calcaneus)

Guide Pins 1.6 mm, 2.4 mm, #2 FiberWire, blue, 6" Ruler, Suture Passing Wire, two FiberLoops w/Straight Needle, Cannulated Drills, 4.5, 5, 5.5, 6, 6.5 mm, QuickPass Tendon Shuttle

Multimedia:

Lateral Ankle Reconstruction, Ankle Arthroscopy and Talar OATS *by Nicholas Abidi, M.D.*	DVD-1107

Literature:

Bio-Tenodesis Technique Series	LB1-0005-EN
Bio-Tenodesis Brochure	LB1-0505-EN

CMC Ligament Reconstruction Implant System

The CMC Ligament Reconstruction Implant System provides a convenient all-in-one solution for ligament reconstruction of the base of the thumb. By combining our state-of-the-art BioComposite Tenodesis Screw with a convenient disposables kit, the CMC Ligament Reconstruction Implant System will enable a faster, more convenient repair—providing strong and immediate fixation of the tendon graft.

With the included Guide Pin and 4 mm cannulated Drill Bit, the bone tunnel at the base of the first metacarpal is established. The QuickPass Tendon Shuttle is included to allow for hassle-free passage of the tendon graft through the prepared tunnel. The 4 mm x 10 mm BioComposite Tenodesis Screw provides strong and immediate fixation, and enables precision tensioning of the graft.

CMC Ligament Reconstruction Implant System (AR-1677BC-CP) includes:

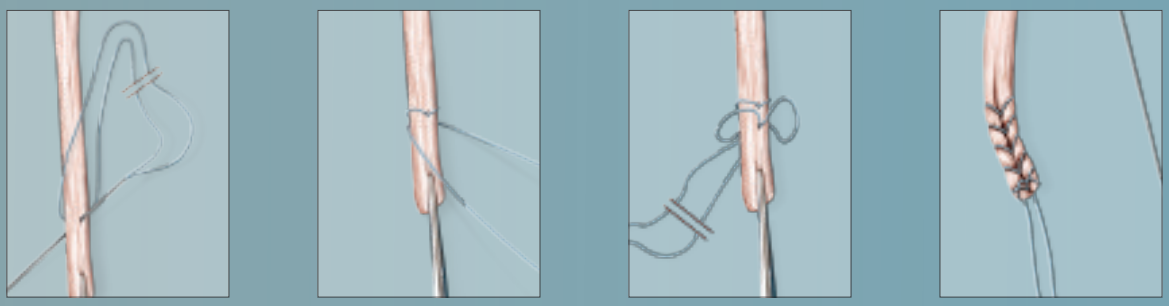
Guide Pin
Drill Bit, cannulated, 4 mm
QuickPass Tendon Shuttle
BioComposite Tenodesis Screw, 4 mm x 10 mm
Tenodesis Driver, 4 mm x 10 mm
Suture Passing Wire, 1.1 mm
6" Ruler

Literature:

LRTI for Thumb CMC Surgical Technique	LT1-0410-EN

Multimedia:

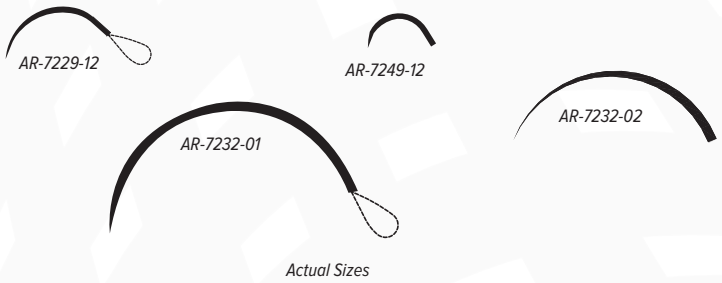
LRTI Procedure using the Arthrex Bio-Tenodesis Screw for the Thumb Basilar Arthritis Surgical Technique Video	VID1-405-EN
LRTI Procedure using the Arthrex Tenodesis Screw for the Thumb Basilar Arthritis Surgical Technique Video	VID1-410-EN



SpeedWhip™ Tendon Preparation Technique with FiberLoop

FiberLoop®

FiberLoop is an excellent suture option for multi-strand tendon repairs. These small diameter looped FiberWire products allow for strong multi-strand flexor and extensor tendon repairs, while reducing tendon damage from multiple needle passes. FiberLoop is available with multiple needle options to prevent cutting suture while stitching.



4-0 FiberLoop w/Tapered Needle, 6", white, 12.7 mm 1/2 circle	AR-7249-12
4-0 FiberLoop w/Tapered Needle, 10", white, 12.7 mm 1/2 circle	AR-7249-20
4-0 FiberLoop w/Tapered Needle, 6", blue, 17.9 mm 3/8 circle	AR-7229-12
4-0 FiberLoop w/Tapered Needle, 10", blue, 17.9 mm 3/8 circle	AR-7229-20
2-0 FiberLoop w/Diamond Point Needle, 30", blue, 48 mm 1/2 circle	AR-7232-01
2-0 FiberLoop w/Diamond Point Needle, 24", blue, 26.2 mm 3/8 circle	AR-7232-02
2-0 FiberLoop w/Diamond Point Straight Needle, 13", blue, 64.8 mm	AR-7232-03
#2 FiberLoop w/Straight Needle, 20", blue, 76 mm Needle w/7 mm loop	AR-7234
#2 TigerLoop w/TigerWire w/Straight Needle, 20", white/green, 76 mm Needle w/7 mm loop	AR-7234T
#2 FiberLoop w/Curved Needle, 20", blue, 1/2 circle	AR-7234C

Literature:

SpeedWhip w/FiberLoop Technique	LT0135

Multimedia:

FiberLoop Tendon Repair in the Hand	VPT1-0415-EN

Reference Chart

BC - BioComposite
PS - PEEK

Graft Diameter	Implant Diameter	Implant Length	Screw Part Number	Drill Depth	Drill Diameter	Suture Loop	Driver Part Number
2.5 – 3.5 mm	3 mm	8 mm	AR-1530BC/PS	8 mm	3 – 3.5 mm	N/A	AR-1530DS
3 – 4 mm	4 mm	10 mm	AR-1540BC/PS	12 mm	4 – 4.5 mm	2-0	AR-1540DB
3.5 – 4.5 mm	4.75 mm	15 mm	AR-1547BC/PS	17 mm	4.5 – 5.5 mm	#2	AR-1350D
4.5 – 5.5 mm	5.5 mm	15 mm	AR-1555BC/PS	17 mm	5.5 – 6.5 mm	#2	AR-1350D
4.5 – 5.5 mm	5.5 mm	8 mm	AR-1655PS	17 mm	5.5 – 6.5 mm	#2	AR-1350D
4.5 – 5.5 mm	5.5 mm	10 mm	AR-1655PS-10	17 mm	5.5 – 6.5 mm	#2	AR-1350D
4.5 – 5.5 mm	5.5 mm	12 mm	AR-1655PS-12	17 mm	5.5 – 6.5 mm	#2	AR-1350D
5 – 6 mm	6.25 mm	15 mm	AR-1562BC/PS	17 mm	6 – 7 mm	#2	AR-1350D
4.5 – 7 mm	7 mm	10 mm	AR-1670BC/PS	12 mm	7 – 8 mm	#2	AR-1670DB
4.5 – 7 mm	7 mm	23 mm	AR-1570BC/PS	25 mm	7 – 8 mm	#2	AR-1570DB
5.5 – 8 mm	8 mm	12 mm	AR-1680BC/PS	14 mm	8 – 9 mm	#2	AR-1670DB
5.5 – 8 mm	8 mm	23 mm	AR-1580BC/PS	25 mm	8 – 9 mm	#2	AR-1570DB
7 – 9 mm	9 mm	23 mm	AR-1590BC/PS	25 mm	8 – 10 mm	#2	AR-1570DB

Implant diameter should be as close to graft diameter as possible by measuring 0 – 25 mm from the tip of the tendon

Drill diameter should be 0.5 – 1 mm larger than tendon diameter, assuming the screw selected is within 1 mm of the tendon diameter

Drill depth should be 2 mm deeper than the length of the screw selected

Drill selection is based on diameter size of tendon and quality of bone

Ordering Information

Bio-Tenodesis Screw Master Set (AR-1675S) includes:	
Drill Bit, 4 mm, cannnulated	AR-1204L
Drill Bit, 4.5 mm, cannulated	AR-1204.5L
Headed Reamers, cannulated, 5 – 10 mm *Sizes: 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9 and 10 mm*	AR-1405 – AR-1410
Tear Drop Handle w/Suture Cleat	AR-2001BT
Driver for 10 mm Tenodesis Screws	AR-1540DB
Driver for 10 mm and 12 mm Tenodesis Screws	AR-1670DB
Driver for 15 mm Tenodesis Screws	AR-1350D
Driver for 23 mm Tenodesis Screws	AR-1570DB
Bio-Tenodesis Screw Instrumentation Case	AR-1675C

Implants:	
BioComposite Tenodesis Screw w/handled inserter, 3 mm x 8 mm	AR-1530BC
BioComposite Tenodesis Screw, 4 mm x 10 mm	AR-1540BC
BioComposite Tenodesis Screw, 4.75 mm x 15 mm	AR-1547BC
BioComposite Tenodesis Screw, 5.5 mm x 15 mm	AR-1555BC
BioComposite Tenodesis Screw, 6.25 mm x 15 mm	AR-1562BC
BioComposite Tenodesis Screw, 7 mm x 10 mm	AR-1670BC
BioComposite Tenodesis Screw, 7 mm x 23 mm	AR-1570BC
BioComposite Tenodesis Screw, 8 mm x 12 mm	AR-1680BC
BioComposite Tenodesis Screw, 8 mm x 23 mm	AR-1580BC
BioComposite Tenodesis Screw, 9 mm x 23 mm	AR-1590BC
PEEK Tenodesis Screw w/handled inserter, 3 mm x 8 mm	AR-1530PS
PEEK Tenodesis Screw, 4 mm x 10 mm	AR-1540PS
PEEK Tenodesis Screw, 4.75 mm x 15 mm	AR-1547PS
PEEK Tenodesis Screw, 5.5 mm x 8 mm	AR-1655PS
PEEK Tenodesis Screw, 5.5 mm x 15 mm	AR-1555PS
PEEK Tenodesis Screw, 6.25 mm x 15 mm	AR-1562PS
PEEK Tenodesis Screw, 7 mm x 10 mm	AR-1670PS
PEEK Tenodesis Screw, 7 mm x 23 mm	AR-1570PS
PEEK Tenodesis Screw, 8 mm x 12 mm	AR-1680PS
PEEK Tenodesis Screw, 8 mm x 23 mm	AR-1580PS
PEEK Tenodesis Screw, 9 mm x 23 mm	AR-1590PS

Disposables:	
Bio-Tenodesis Disposables Kit for 3 mm x 8 mm screw	AR-1530DS
Disposable Tenodesis Driver w/5.5 mm Screw and #2 FiberWire	AR-1555DS

Accessories (optional):	
Bio-Tenodesis Tap, 4 mm x 10 mm	AR-1540T
Bio-Tenodesis Tap, 4.75 mm x 15 mm	AR-1547T
Bio-Tenodesis Tap, 5.5 mm x 15 mm	AR-1555T
Bio-Tenodesis Tap, 6.25 mm x 15 mm	AR-1562T
Bio-Tenodesis Tap, 7 mm x 10 mm	AR-1670T
Bio-Tenodesis Tap, 7 mm x 23 mm	AR-1570T
Bio-Tenodesis Tap, 8 mm x 12 mm	AR-1680T
6.7 mm Low Profile Screw System Tenodesis Module (for calcaneal osteotomies)	AR-8967S

Multimedia for Foot & Ankle and Hand & Wrist:	
Bio-Tenodesis Animation-An Alernative Technique for Anatomic Insertion with Tendon Shortage	DVD-1093
Comprehensive Foot & Ankle Surgical Technique	DVD-1103
Techniques for Tendon Transfer in Foot & Ankle Reconstruction using Bio-Tenodesis Fixation *by Thomas Clanton, M.D.*	DVD-1064
Lateral Ankle Reconstruction, Ankle Arthroscopy and Talar OATS *by Nicholas Abidi, M.D.*	DVD-1107
ScaphoLunate Reconstruction using the Arthrex ScaphoLunate Axis Method (SLAM) Surgical Technique Video	VID1-0401-EN
ScaphoLunate Reconstruction using the Arthrex Scapholunate Axis Method (SLAM) Surgeon WebEx	VPT1-0032-EN
LRTI Procedure using the Arthrex Bio-Tenodesis Screw for the Thumb Basilar Arthritis Surgical Technique Video	VID1-405-EN
LRTI Procedure using the Arthrex Tenodesis Screw for the Thumb Basilar Arthritis Surgical Technique Video	VID1-410-EN

Literature for Foot & Ankle and Hand & Wrist:	
Bio-Tenodesis Technique Series	LB1-0005-EN
Bio-Tenodesis Brochure	LB1-0505-EN
LRTI for Thumb CMC Surgical Technique	LT1-0410-EN
Thumb UCL Repair/Reconstruction Surgical Technique	LT0406

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