ACL Reconstruction with TightRope® DB

Surgical Technique
The TightRope DB offers the simplicity and strength of the ACL TightRope, with the addition of aperture graft compression and greater coverage of ACL footprint. The ACL TightRope DB comes with a disposable driver to facilitate graft advancement and orientation.

**Titanium Button:**
- Allows consistent cortical fixation
- Passes through small guide pin hole, preserving bone and decreasing surgical steps

**Adjustable ACL TightRope technology:**
- Eliminates need for multiple sizes
- Facilitates complete filling of femoral socket with graft
- Locks securely and resists slippage due to four-point knotless fixation

**PEEK Spacer/Wedge:**
- Provides aperture compression of the graft
- Is positioned concentrically as to not interfere with graft tunnel contact
- Comes in two sizes for multiple graft widths
If using the driver, assemble the wedge to the driver tip so the collar is in line with the width of the wedge.

Place the sutures from the ends of the graft into the cleats on the handle to hold graft in position.

**GRAFT PREPARATION and IMPLANT ATTACHMENT**

Select the ACL TightRope wedge according to graft size. Grafts 7-8 mm should use a 7 mm wedge. Grafts 9-11 mm should use a 9 mm wedge.

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1. Pass a #2 FiberLoop® through one or both of the open holes in the TightRope wedge. The distal hole should be used primarily.

2. Place the midpoint of the graft over the wedge and place each end of the graft through the FiberLoop on either side of the graft.

3. Cut the FiberLoop suture near the needle and discard needle. Cinch the FiberLoop down onto the graft and tie the cut ends of the FiberLoop together. Cut the tails off the knot. Mark the graft at 25 mm from the femoral end.

Prepare the tibial ends of the graft with #2 FiberLoop and/or #2 TigerLoop™. (Note: If femoral side of the graft is to be passed through the medial portal, the tibial ends of the graft must be tapered for retrograde passing into the tibial tunnel. Size the tibial end of the graft.)

**IMPORTANT:** Remeasure the femoral end of the graft using the Graft Sizing Block for overall diameter.

Mark the ACL TightRope at a distance equal to the intraosseous length from the button.

If using the driver, assemble the wedge to the driver tip so the collar is in line with the width of the wedge.

Place the sutures from the ends of the graft into the cleats on the handle to hold graft in position.

**Warning:** Do not add additional suture to the button, as this may impede passage through the femur.
Use the RetroButton® Pin II, Low Profile Reamers, and ACL guides for transtibial and transportal preparation. A FlipCutter® may also be used for femoral socket creation. **Note the intraosseous length of the femur.**

**BONE TUNNEL PREPARATION**

Drill the femoral socket at least 25 mm deep and equal to the final diameter of the graft/wedge construct.

**NOTE:** Alternatively, the socket may be drilled to a diameter equal to the first 1/2 of the wedge with the graft loaded. The aperture is notched, as shown in the following step on the next page.
Pull the button through the femur. When the mark on the implant enters the tunnel, the button has exited the cortex. Pull on the shortening strands one at a time to facilitate advancement. Once the mark on the graft (red arrow) is at the femoral aperture and the wedge is completely inside the tunnel, the graft is seated.

**NOTE:** When the graft/wedge construct reaches the desired position in the femoral socket and graft stability is verified by pulling distally on the graft, no additional force on the shortening strands is required. Excessive force may break the shortening strands.

A RetroScrew® Tunnel Notcher may be used to create large notches, the length of the tunnel for the graft bundles in the anteromedial and posterolateral bundle location.

If passing the tibial end of the graft retrograde through the tunnel, drill the tibial tunnel to a diameter 1 mm greater than the measured diameter of the graft. A graft passing suture must also be placed through the tibial tunnel and out the medial portal for later passing.

If passing the graft transtibially, drill the tibial tunnel 1 mm greater than the diameter of the femoral graft/wedge construct.
Remove driver and pull on each limb of the shortening strands individually for final seating.

If the medial portal is being used, make a loop in the tibial passing suture and place the graft sutures into the loop. Pull distally on the passing suture and retrieve the suture tails out the distal tibia. Pull on graft sutures to seat the tibial side of the graft. Graft tails can be placed in the anatomic AM and PL positions to correspond with femoral limbs and fixed with a GraftBolt® (a) or interference screw.

**ALL-INSIDE RECONSTRUCTION with ACL TIGHTROPE DB**

Combining the ACL TightRope DB with the all-inside ACL technique provides the ultimate in anatomic, minimally invasive ACL reconstruction.
# Ordering Information

## Implants:

<table>
<thead>
<tr>
<th>Implant</th>
<th>Code</th>
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<tbody>
<tr>
<td>ACL TightRope DB, 7 mm wedge</td>
<td>AR-1588TDB-7</td>
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<tr>
<td>GraftBolt w/Screw, 7 mm</td>
<td>AR-5100-07</td>
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<tr>
<td>GraftBolt w/Screw, 8 mm</td>
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<tr>
<td>GraftBolt w/Screw, 9 mm</td>
<td>AR-5100-09</td>
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<tr>
<td>GraftBolt w/Screw, 10 mm</td>
<td>AR-5100-10</td>
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<tr>
<td>ACL TightRope DB Implant Delivery System</td>
<td>AR-1588TDB-7S</td>
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## Instruments:

### For FlipCutter Technique:

<table>
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<tbody>
<tr>
<td>RetroConstruction Drill Guide Set</td>
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<tr>
<td>FlipCutter II, 6 mm</td>
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<td>FlipCutter II, 6.5 mm</td>
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<td>FlipCutter II, 7 mm</td>
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<td>FlipCutter II, 13 mm</td>
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### For Medial Portal Technique:

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<tr>
<td>Transportal ACL Guide (TPG), 4 mm</td>
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<td>Transportal ACL Guide (TPG), 5 mm</td>
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<td>Transportal ACL Guide (TPG), 6 mm</td>
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<td>Low Profile Reamer, 7 mm</td>
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<td>Low Profile Reamer, 11 mm</td>
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<td>Drill Pin, ACL TightRope, open eyelet, 4 mm</td>
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## Accessories:

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<tr>
<td>Suture Retriever</td>
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<tr>
<td>FiberWire Cutter</td>
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<td>Graft Sizing Block</td>
<td>AR-1886</td>
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<td>#2 FiberLoop</td>
<td>AR-7234</td>
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<tr>
<td>#2 TigerLoop</td>
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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.

U.S. PATENT NOS. 5,320,626; D378,780; 6,716,234; 7,029,490 and PATENTS PENDING

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