NOVOSTITCH™ PRO Meniscal Repair System

Designed for access and safety in tight knee joints

Access
Low 1.6mm entry profile with a retractable lower jaw

Maneuver
Curved upper jaw and blunt tip to enhance maneuverability

Protect
Intra-articular needle deflects away from femur minimizing the risk of chondral injury

Simplify
Pre-loaded all-suture implant eliminates suture management with single insertion cartridge available in size 2-0 and 0 suture

Circumferential Compression Stitch
HORIZONTAL
RADIAL
ROOT
Technique

Placing the first limb of suture

Squeeze the orange handle to keep the upper jaw parallel with the shaft, and enter the knee.

When the upper jaw is in anatomic position over the meniscus, release the orange handle.

Extend the lower jaw under the meniscus by pressing downward on the grey thumb lever. Once extended, release the grey thumb lever.

Black targeting mark indicates where the needle will exit the meniscus.

Needle will exit at the distal portion of the targeting mark when passing through thick peripheral tissue.

Needle will exit at the proximal portion of the targeting mark when passing through thin central tissue.

When device is in position to place the first limb of suture, squeeze the orange handle and apply slight forward pressure to prevent the tissue from migrating distally.

Slowly deploy the needle and suture limb by simultaneously squeezing the orange and black handles until the black handle fully advances (indicated with a click).

Release both the orange and black handles to finish placing the first end of the stitch. Ensure the black handle fully retracts before proceeding with the second end of the stitch.
Completing the stitch

To place the second limb of the stitch ensure the lower jaw is extended. With the device in position, squeeze the orange handle and apply slight forward pressure to prevent the tissue from migrating distally.

Slowly deploy the needle and suture limb by simultaneously squeezing the orange and black handles until the black handle fully advances (indicated with a click).

Release both the orange and black handles to finish placing the second end of the stitch. Ensure the black handle fully retracts before removing the device from the knee.

Retract the lower jaw by pressing the grey thumb lever downward.

Lower jaw retracted.

Keep the orange handle engaged while carefully withdrawing the device from the joint to keep the upper jaw parallel with the shaft.

Remove suture ends and tie a knot

Relax the orange handle of the NOVOSTITCH® PRO Meniscal Repair System and remove the suture ends from the upper jaw by pulling back on the sutures and/or advancing the device forward.

Using standard surgical techniques and the NOVOCUT Suture Manager, advance a knot to the surface of the tissue until tissue approximation at the tear is observed. Place the appropriate number of additional throws to ensure the knot is secure.
Technique

Cartridge unloading and reloading

If not already in the forward position, advance the lower jaw into the forward locked position by pressing down on the grey thumb lever.

Grasp the suture spool and pull it both down and forward towards the distal end of the device until it is free from the device shaft.

Discard used cartridge and procure a new cartridge.

Flip the handle over so that the underside of the shaft is visible.

Align the black mark on the cartridge so that it is over the shaft mark.

With the cartridge seated in the shaft, slide the cartridge towards the handle until the cartridge snaps in place.

Confirm the lower jaw is loaded properly by checking that the lower jaw is flush with the shaft. If the lower jaw is not flush, remove the cartridge and re-load it.

Once confirmed that the lower jaw is flush with the shaft, turn the device upright and retract the lower jaw by pushing down on the grey thumb lever.

Lower jaw retracted. The device is now ready to place another stitch.

Stitch targeting

Target area on the upper jaw approximates where the needle penetrates the meniscus. The amount of tissue between the jaws of the device will determine where the needle will exit the meniscal tissue.

Peripheral pass
For mid-body or peripheral passes, where a large amount of tissue is between the jaws of the device, use the middle to peripheral section of the upper jaw target area for guidance.

Central pass
For central passes, where a small amount of tissue is between the jaws of the device, use the central section of the upper jaw target area for guidance. Ensure the lower jaw tooth is fully covered by the meniscus.
Unlike other devices that drive anchors horizontally through the meniscus, the lower jaw of the NOVOSTITCH® PRO Meniscal Repair System slides underneath the meniscus, allowing the needle to deliver suture vertically and thus enabling the circumferential compression stitch. You may need to adjust your standard portal or create an accessory portal to maximize access and device function.

Planning tips
Portal placement

Angle of approach

Use a spinal needle prior to creating portals to ensure the appropriate approach angle.
**Radial tear**

Side-to-side circumferential stitches

1. Pass limb 1
2. Pass limb 2 across tear
3. Tie across tear and tighten
4. Repeat with subsequent central stitches

**Tips**
- Consider central edge removal
- Ensure sides of tear do not overlap after repair
- Place each suture limb at least 5mm from tear

**Horizontal cleavage tear (HCT)**

Haybale stitches  
*For HCTs that exit at the apex*

1. Remove unstable central rim
2. Pass peripheral (limb 1)
3. Tie suture over apex and tighten
4. Repeat with subsequent stitches

**Root tear**

Modified double locking loop stitch

1. Pass peripheral limb (limb 1)
2. Pass central limb (limb 2)
3. Pull suture limbs through loop at the end of meniscus and tighten and tie over button

**Tips**
- Place 2 constructs to increase strength
- Discuss tunnel technique options
- Drill first to avoid suture cuts

• Consider removal of central edge to align lamina
• Overstuffed jaws may cause peripheral misses
• Place stitches every 3-5mm
Ordering information

**NOVOSTITCH® PRO**

<table>
<thead>
<tr>
<th>Reference #</th>
<th>Description</th>
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<tbody>
<tr>
<td>CTX-A003</td>
<td>NOVOSTITCH PRO Meniscal Repair System (2-0)</td>
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<tr>
<td>CTX-A004</td>
<td>NOVOSTITCH PRO Meniscal Repair System (0)</td>
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<tr>
<td>CTX-C001</td>
<td>NOVOCUT® Suture Manager</td>
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<tr>
<td>CTX-R001</td>
<td>NOVOSTITCH Cartridge (2-0)</td>
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<tr>
<td>CTX-R002</td>
<td>NOVOSTITCH Cartridge (0)</td>
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*Refer to the instructions for Use for device-specific indications, adverse effects, warnings and precautions.*