TFCC repair using the Smith & Nephew TFCC Mender Disposable Suture System

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The Smith & Nephew TFCC Mender Disposable Suture System is designed for repairing type 1B tears of the triangular fibrocartilage complex under arthroscopic visualization. The TFCC Mender System allows the surgeon to work from the outside of the wrist into the joint, instead of starting sutures inside the capsule and exiting the posterior capsule blindly.

The TFCC Mender System utilizes curved and straight needles and a patented loop. Each Smith & Nephew TFCC Mender Disposable Suture System is packaged sterile.
Repair of a 1B tear

1. Establish the 3-4 portal and place the arthroscope there.

2. Establish a working portal at either the 6-R or 4-5 portal.

3. Debride the edges of the tear.

4. Make a 1.5–2 mm incision over the ECU tendon. Protect the dorsal ulnar sensory nerve branches. Open the ECU sheath and retract the tendon (Figure 1).

5. Advance the needle with stylet from the outside, in through the floor of the ECU tendon sheath, the joint capsule, and the rim of the TFCC (Figure 2).

6. At least 2 mm from the first needle, pass the second needle with stylet (Figure 3).

7. Remove the stylet from the first needle. Insert the Smith & Nephew Loop through the needle until you see the loop open in the joint. Rotate the loop to accept the second needle and suture.

8. Point the tip of the second needle through the loop. Remove the stylet. Pass a #2-0 PDS suture though the second needle into the loop (Figure 4).
9. Pull back on the loop to capture the suture material. Then ease both the needle and loop with the captured suture outside the joint, creating a mattress suture (Figure 5).

10. Tug on the two limbs of the suture. The TFCC rim should be pulled to the capsule.

11. Tie the suture securely over the floor of the ECU sheath with the forearm in neutral rotation. Once the stability of the TFCC is tested with a probe, cut the knot short (Figure 6).

12. One or two mattress sutures may be required.

13. Repair the ECU retinaculum as necessary.

Suture material is not included in the kit. #2-0 suture is preferred, however, type your suture selection based on the patient’s age, nature of the tear, and surgeon experience. There is a benefit to having different colored suture material when multiple sutures are utilized.

Postoperative Management
• Six weeks immobilization in neutral rotation
• Protected range of motion for the next two weeks.
• Strengthening exercises beginning at eight weeks.
• Full activity at twelve weeks.

Additional Instruction
Prior to performing this technique, consult the Instructions for Use documentation provided with individual components — including indications, contraindications, warnings, cautions, and instructions.

Courtesy of Smith & Nephew, Inc., Endoscopy Division

Caution: U.S. Federal law restricts this device to sale by or on the order of a physician.