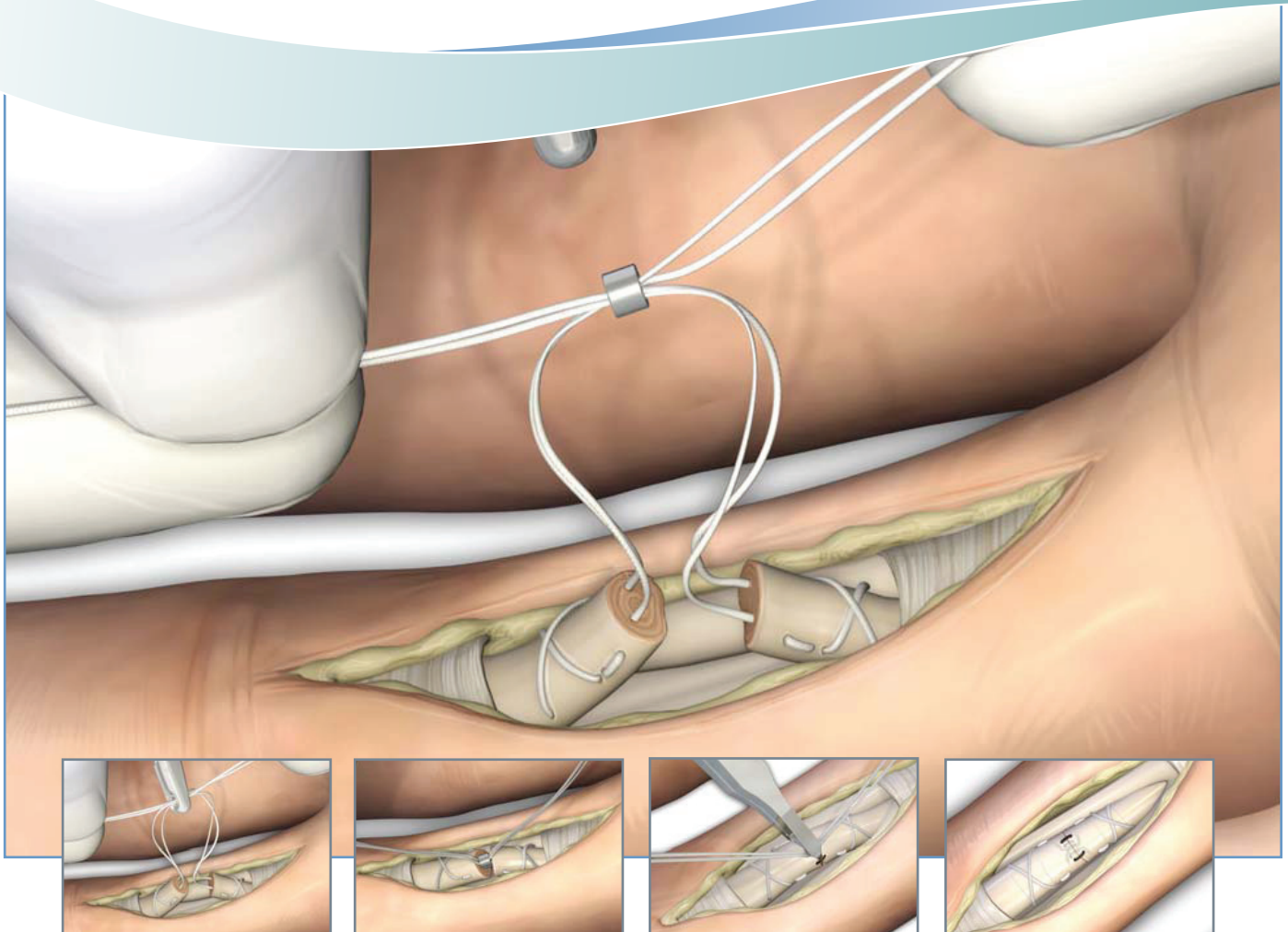


PONTIS™

Knotless Endotendonous Repair System

SURGICAL TECHNIQUE



The Bridge to Better Care

A SIMPLER, KNOTLESS TECHNIQUE FOR FLEXOR TENDON REPAIRS

PONTiS is a knotless flexor tendon repair system with the option of a minimally invasive surgical approach.

Combined with its simpler procedure, the PONTiS Multifilament Stainless Steel (SS) Implant and innovative instrumentation help to provide increased strength of repair and allows for early active motion protocol.

For Zone 1 repairs, PONTiS also features an innovative, knotless anchor that enables surgeons to simply reattach the flexor tendon to the distal phalanx.

INSTRUMENTATION & IMPLANTS



PONTiS Instrument Set



Anchor w/ MFSS Suture



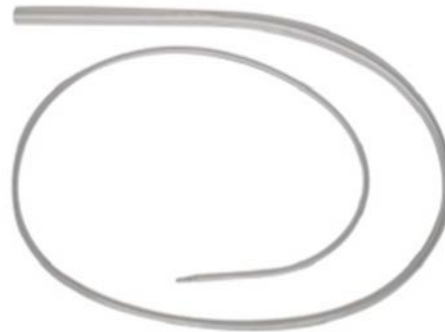
Funnel



Multifilament SS Suture

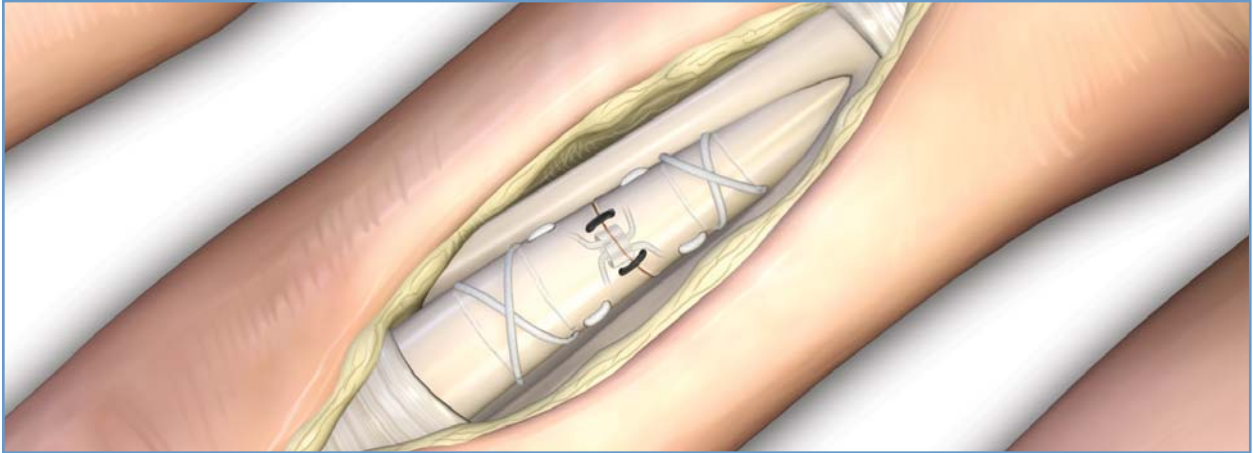


Suture Crimp



Pulley Dilation Catheter

PONTiS SOLUTIONS



Standard Flexor Digitorum Profundus (FDP) without Anchors



Distal Phalanx Repair with PONTiS Anchor



Scan to watch the PONTiS Standard Flexor Digitorum Profundus Surgical Technique animation.

STANDARD FLEXOR DIGITORUM PROFUNDUS (FDP) REPAIR

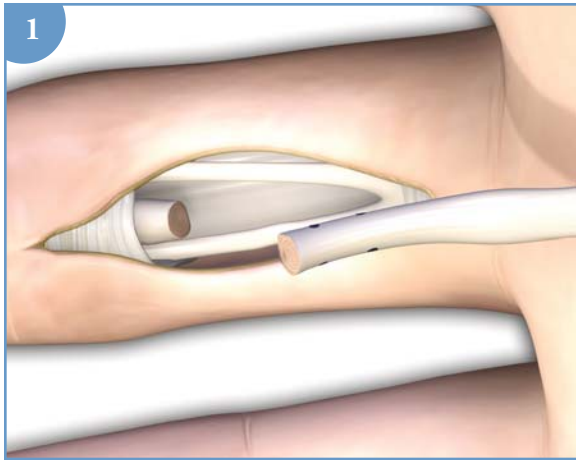


FIGURE 1: Using a marking pen make two marks at 1.2cm and 0.6cm.

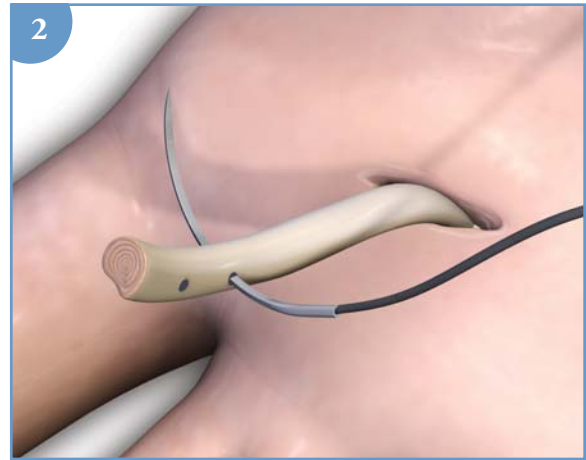


FIGURE 2: Using the multifilament SS implant make your first pass through the tendon at 1.2cm.

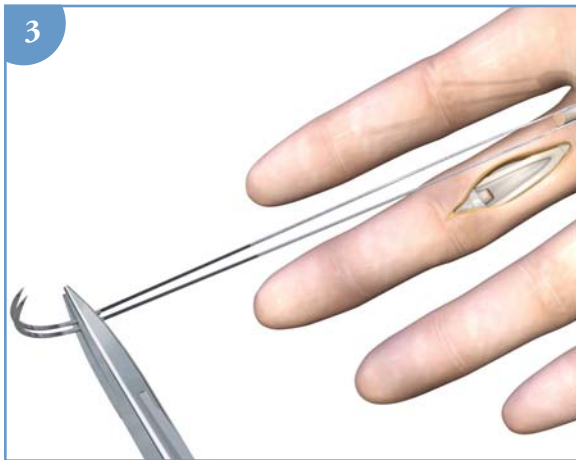


FIGURE 3: Pull the implant through the tendon so the ends are of even length.

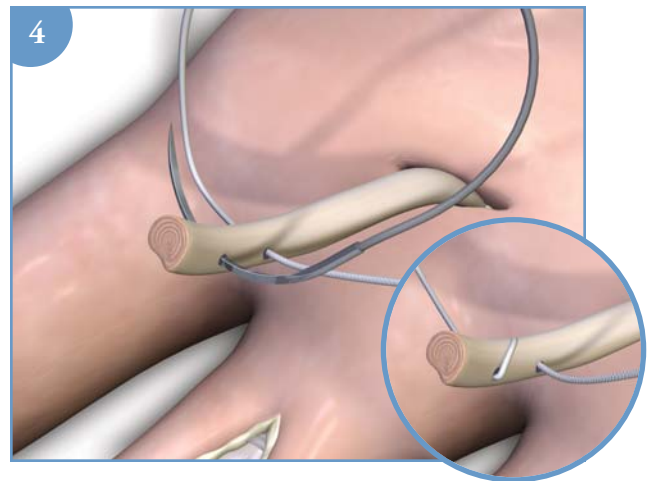


FIGURE 4: Take one end and cross the implant over the tendon and place the needle through the tendon at 0.6cm.

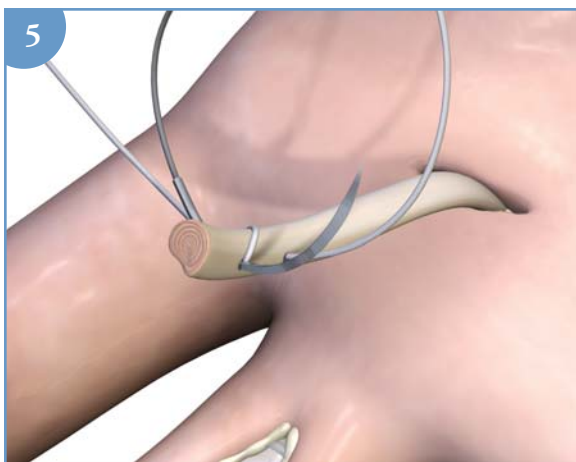


FIGURE 5: Take the second implant end and cross the tendon so the needle enters the tendon close to where the first needle exited and pull ends tight.

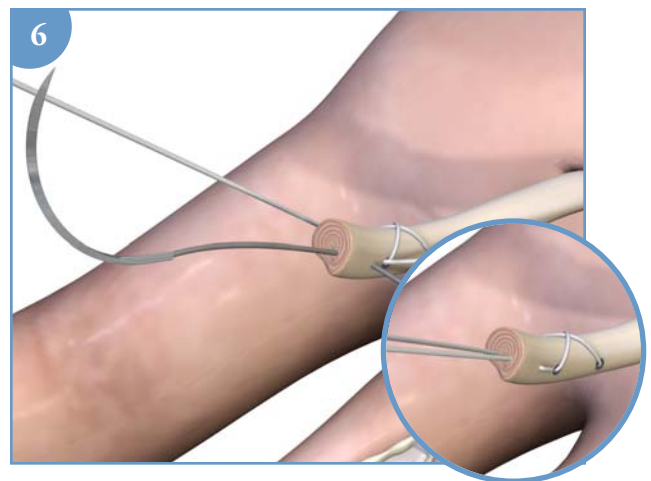


FIGURE 6: Pass each implant end from its exit point out the cut end of the tendon starting approximately 1mm closer to the cut end. The implant must exit close to the middle of the cut tendon end.

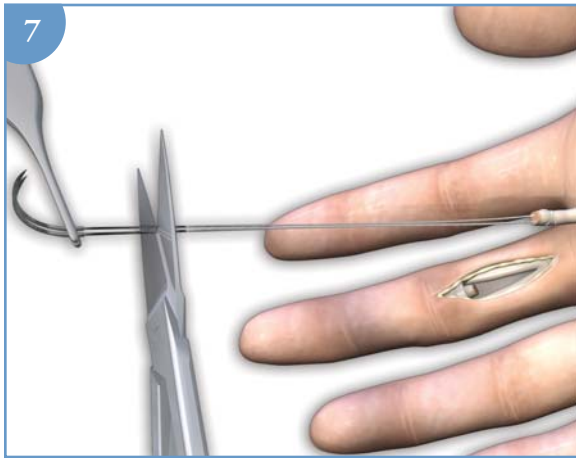


FIGURE 7: Remove the needles by cutting the shrink tube close to the needles.

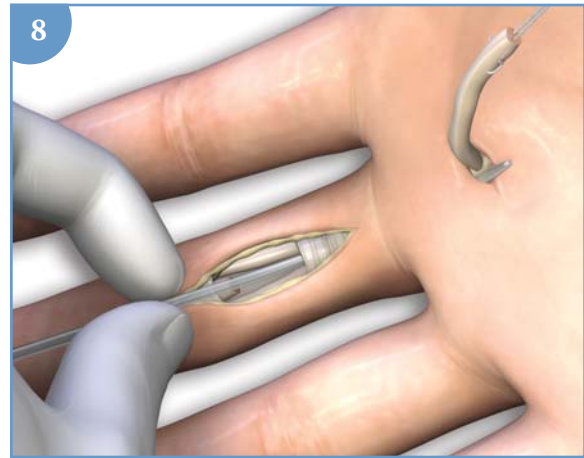


FIGURE 8: Pass the pulley dilation tube from the wound into the palm.

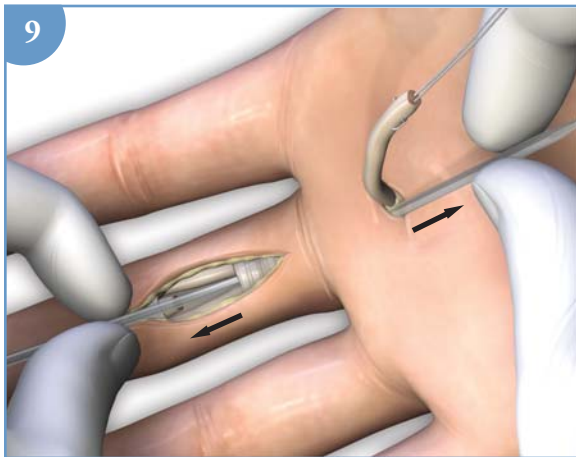


FIGURE 9: Dilate the pulley system by pulling the dilation tube back and forth at least 10 times.

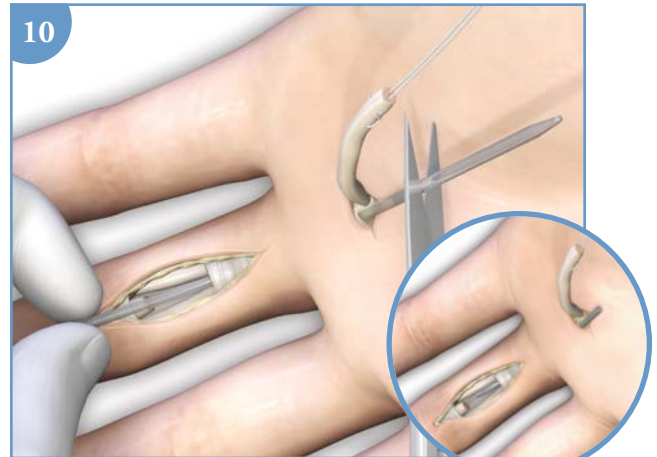


FIGURE 10: Cut the tube at both ends 1cm-2cm distance away from incision.

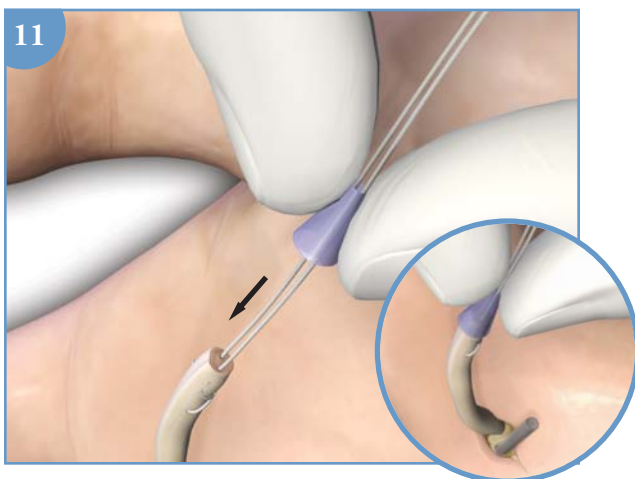


FIGURE 11: Thread the multifilament SS implant ends through the large diameter of the aglet. Slide tendon passing aglet over the tendon end ensuring the end is fully covered.

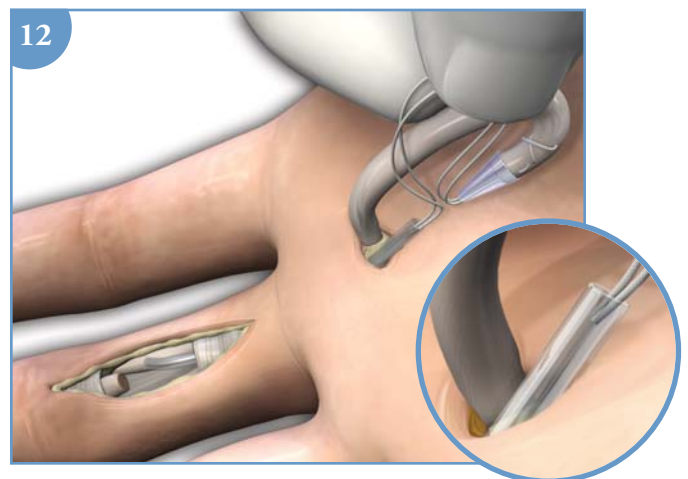


FIGURE 12: Thread implant through the lumen of the pulley dilation tube and place the tip of the aglet in the lumen.

STANDARD FDP WITHOUT ANCHORS

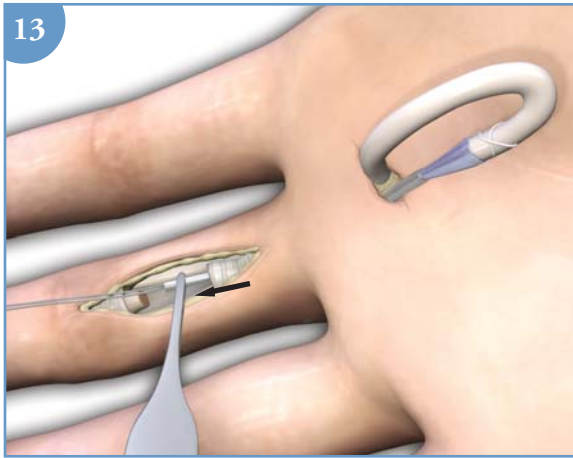


FIGURE 13: Clamp the multifilament SS implant at the distal end of the pulley dilation tube to hold the aglet tip within the tube at the proximal end. Pull implant ends and tube, as one, distally to feed the tendon through the pulley.

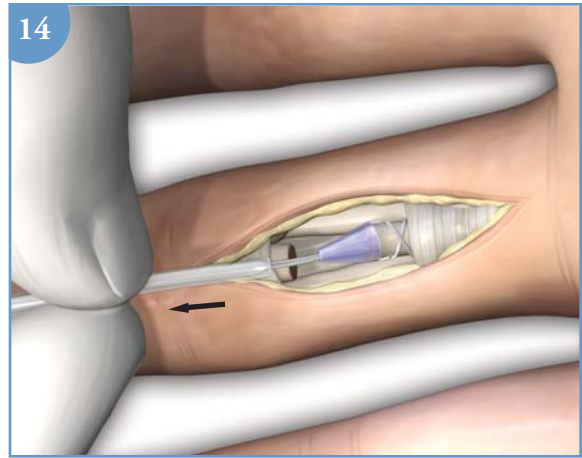


FIGURE 14: Remove the pulley dilation tube and aglet.

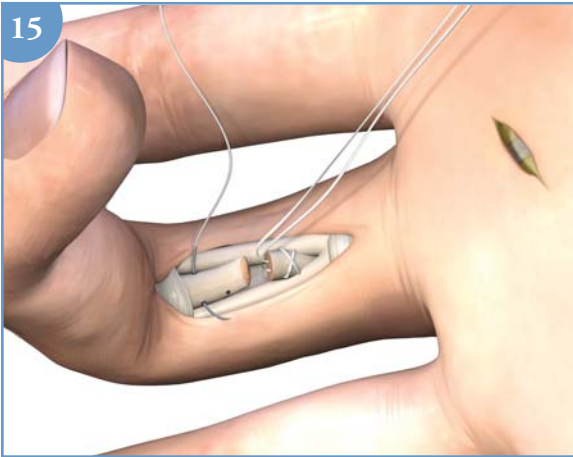


FIGURE 15: The distal tendon may be delivered by flexing the distal joints. Repeat stitching steps 1-7.

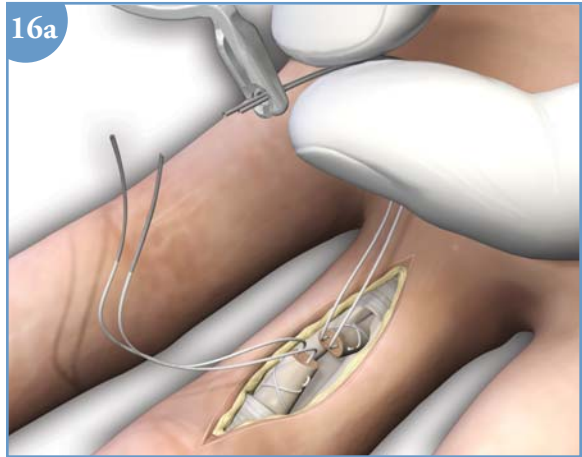


FIGURE 16a: Load the crimp implant into the crimp holder. Pass each multifilament SS implant end through the crimp.

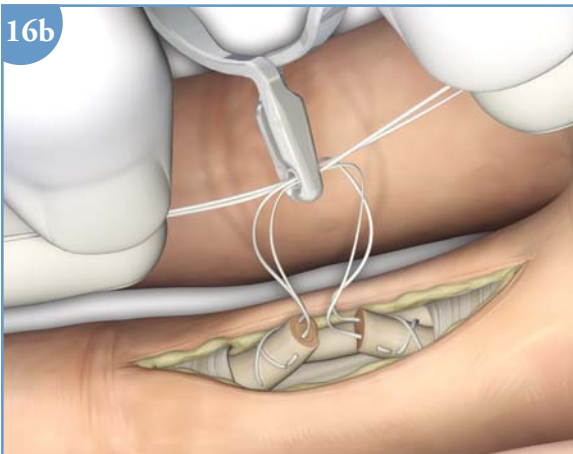


FIGURE 16b: The two proximal implant strands must enter the proximal opening and the two distal implant strands must enter the distal opening.

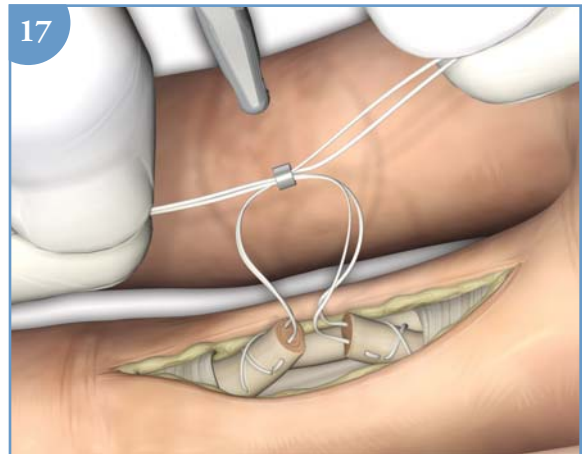


FIGURE 17: Release the crimp implant by squeezing the crimp holder.

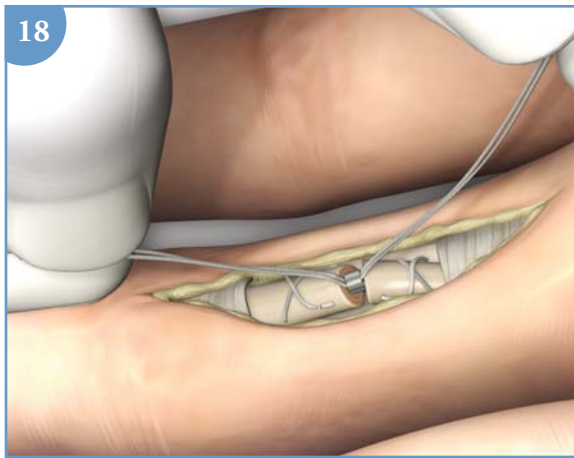


FIGURE 18: Centralize the crimp implant within the tendon by pulling the two multifilament SS implant strands exiting each side of the crimp implant.

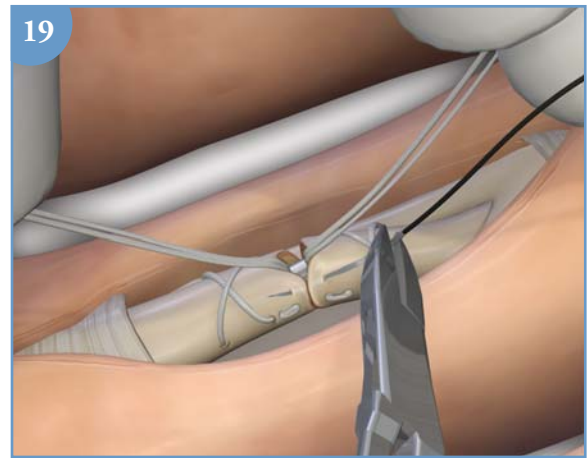


FIGURE 19: Place and tie the first epitendonous stitch at the lateral corner of the repair farthest from the surgeon. This will control rotation of the tendon.

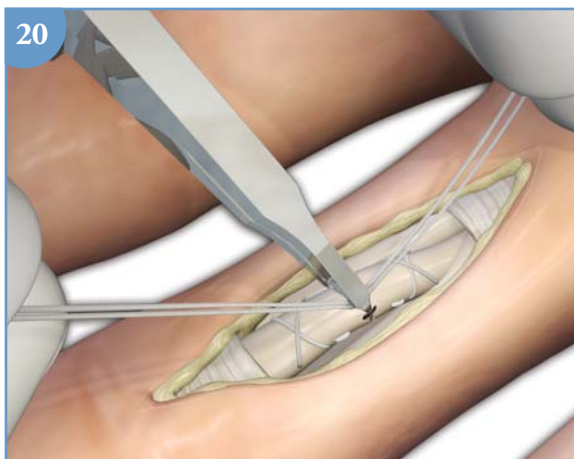


FIGURE 20: Tighten each implant strand individually prior to using the crimp tool. Assistant will maintain tension as the crimp tool is used to lock the implant. Insert the crimp tool transverse to the tendon. The crimp tool must be completely squeezed until cam-action (bottoming) is felt.

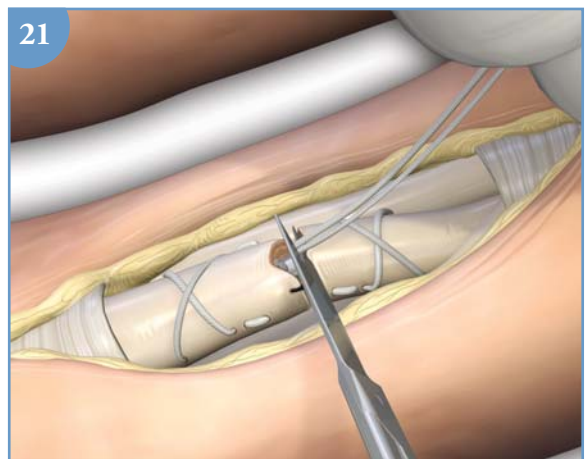


FIGURE 21: Cut the multifilament SS implant limbs close to the crimp.

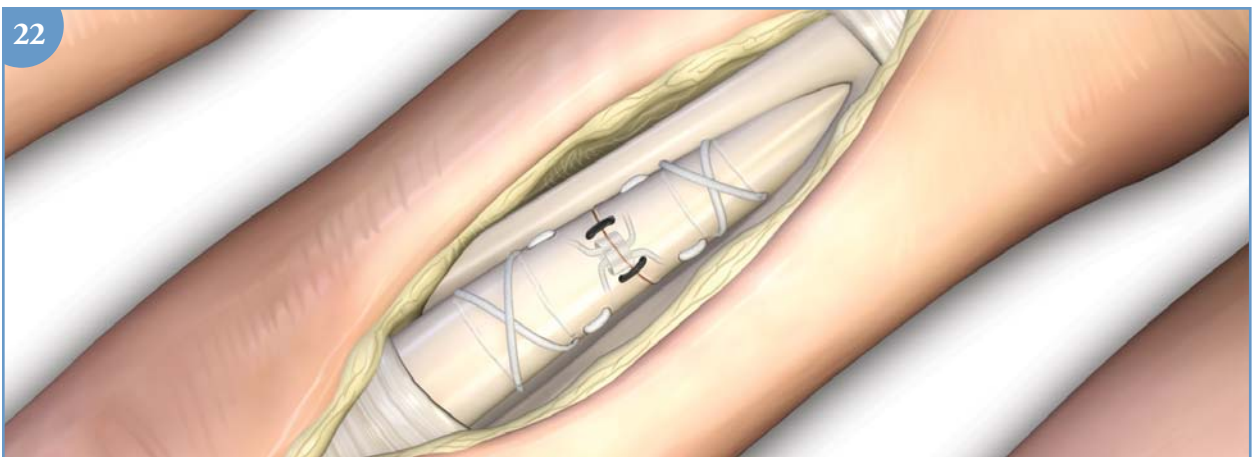


FIGURE 22: Complete the epitendonous stitch across the palmar surface of the repair by using interrupted stitches. Take the repaired tendon through 5 or 6 excursions to ensure good motion through the pulleys.

DISTAL PHALANX REPAIR WITH PONTIS ANCHOR



FIGURE 1: Stitch proximal tendon using Steps 1-7 (pages 4-5). Insert Pre-drill to laser line.

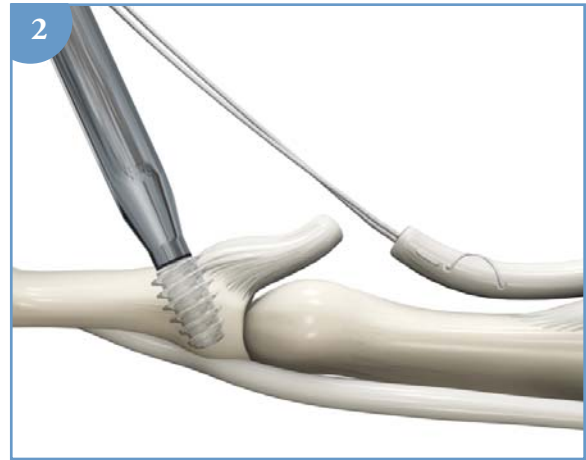


FIGURE 2: Insert Tap to laser line.

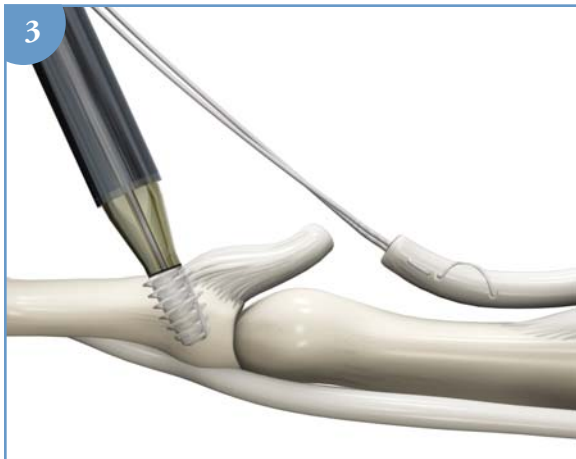


FIGURE 3: Insert PONTIS anchor to laser line.

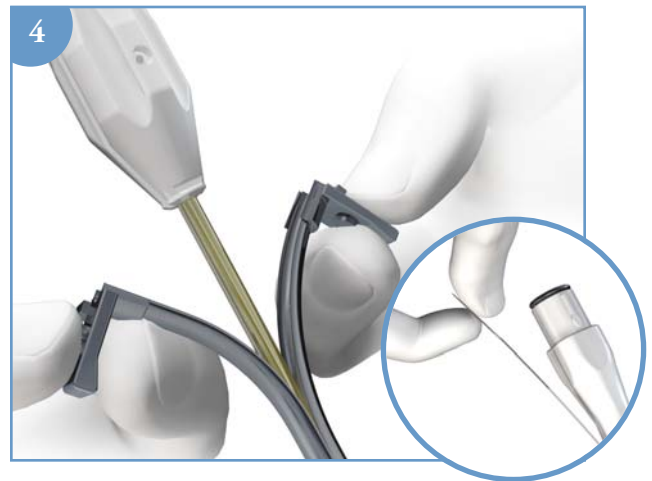


FIGURE 4: Grip the wings of the protective sleeve and pull outward and away from the driver. Remove cap to expose needles.

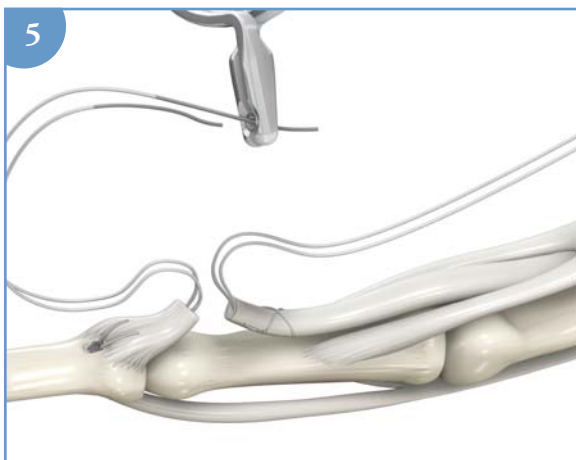


FIGURE 5: Use a gliding stitch through the distal tendon stump. Pass the multifilament SS implant through the crimp implant. The two proximal implant strands must enter the proximal opening and the two distal implant strands must enter the distal opening.

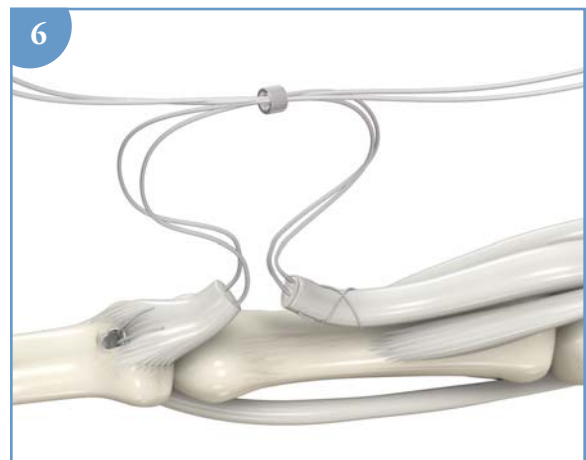


FIGURE 6: Release the crimp implant by squeezing the crimp holder.



FIGURE 7: Centralize the crimp implant within the tendon by pulling the two multifilament SS implant strands exiting each side of the crimp.

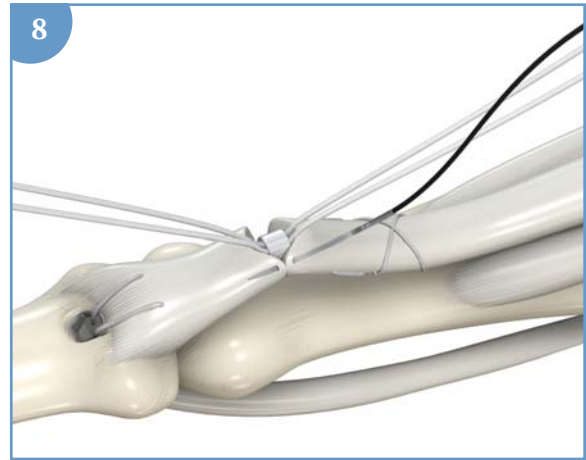


FIGURE 8: Place and tie the first epitendonous stitch at the lateral corner of the repair farthest from the surgeon. This will control rotation of the tendon.

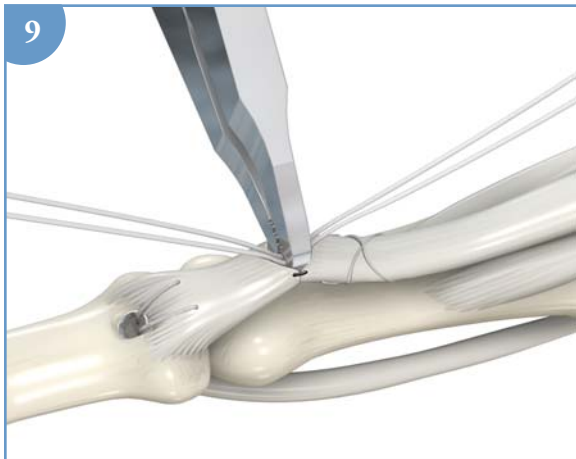


FIGURE 9: Tighten each implant strand individually prior to using the crimp tool. Assistant will maintain tension as the crimp tool is used to lock the implant. Insert the crimp tool transverse to the tendon. The crimp tool must be completely squeezed until cam-action (bottoming) is felt.

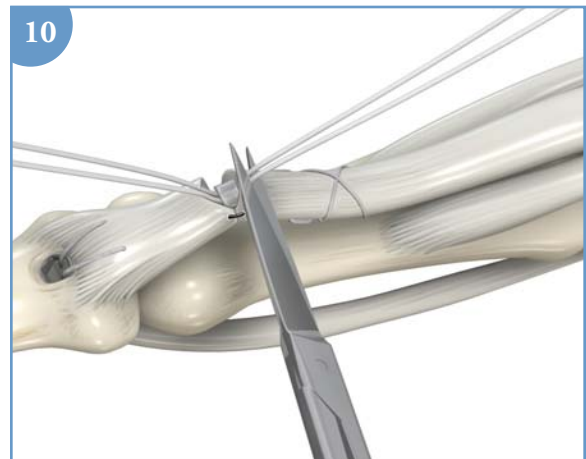


FIGURE 10: Cut the multifilament SS implant limbs close to the crimp.



FIGURE 11: Complete the epitendonous stitch across the palmar surface of the repair by using interrupted stitches. Take the repaired tendon through 5 or 6 excursions to ensure good motion through the pulleys.