

# *i*nterference<sup>®</sup>

SCREW SYSTEM WITH MULTI-DRIVE TECHNOLOGY

## Surgical Technique Guide



**INTERFERENCE**  
BIOMEDICAL TECHNOLOGIES™

## Product Sizes Available

4.0 Diameter: 10mm, 15mm

5.0 Diameter: 15mm, 20mm

6.0 Diameter: 20mm, 25mm

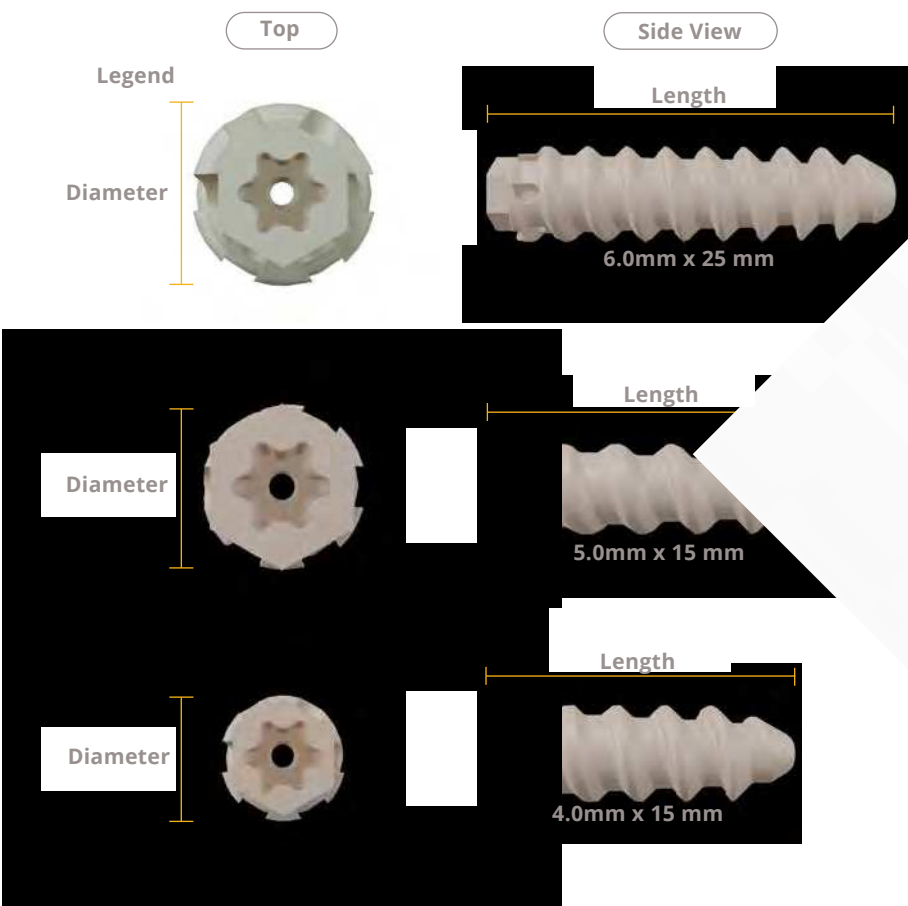
The multi-drive Interference screw system is made of Fusion Grade PEEK, a compound of PEEK and hydroxyapatite, to promote osteoconduction.

The multi-drive technology (inner hexalobe, outer hex, and outer flywheel) insertion features provide increased torque resistance and decrease the risk of stripping.

The Multi-Drive Interference Screw System is intended for soft tissue reattachment, i.e. fixation of ligament and tendon graft tissue and tendon transfers. Specifically:

Foot/Ankle:

Lateral Stabilization, Medial Stabilization, Achilles Tendon Repair, Hallux Valgus Reconstruction, Midfoot Reconstruction, Metatarsal Ligament Repair, Flexor Hallucis Longus Transfer for Achilles Tendon Reconstruction, and Flexor Digitorum Longus Transfer for Posterior Tibial Tendon Reconstruction.



| Implant     | Sizing                           |
|-------------|----------------------------------|
| INTF-40-10P | PEEK, 4.0mm Diameter x 10mm long |
| INTF-40-15P | PEEK, 4.0mm Diameter x 15mm long |
| INTF-50-15P | PEEK, 5.0mm Diameter x 15mm long |
| INTF-50-20P | PEEK, 5.0mm Diameter x 20mm long |
| INTF-60-20P | PEEK, 6.0mm Diameter x 20mm long |
| INTF-60-25P | PEEK, 6.0mm Diameter x 25mm long |

**Suture Passer**



**K-Wire**



**Multidrive Inserter (4.0 and 5.0/6.0)**



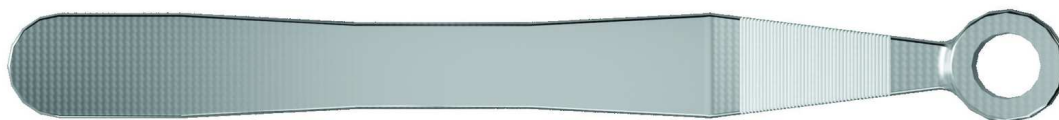
**Drill (4.0, 5.0, 6.0 diameter)**



**Tendon Sizer**



**Drill Guide Handle**



**Handle**



**Tissue Protector (4.0, 5.0, 6.0 diameter)**



# Multi-Drive Interference Screw Surgical Technique

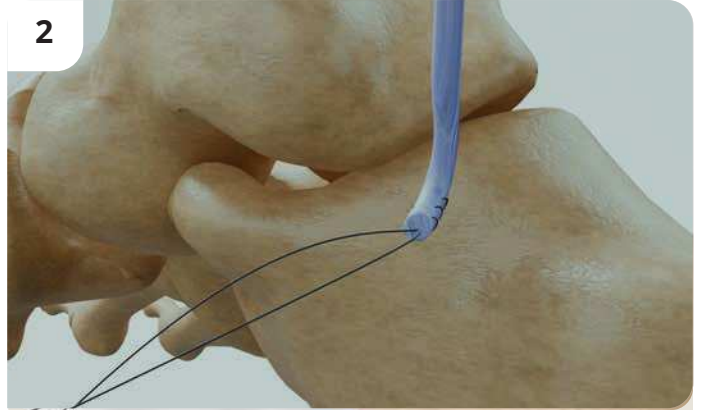
1



## Incision and Exposure

Make the incision, perform the exposure, and harvest the tendon using standard techniques.

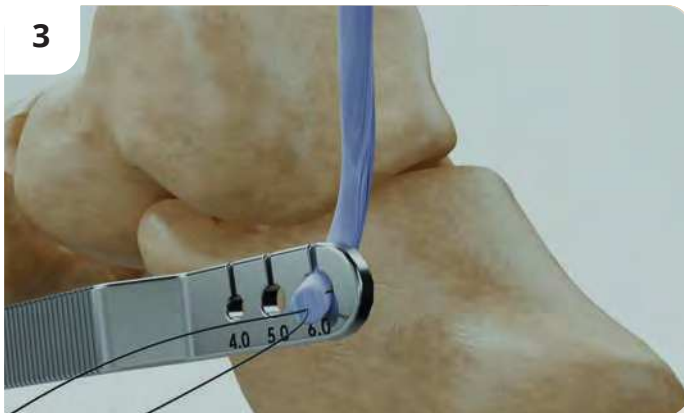
2



## Suture Placement

Place a suture through the cut end of the tendon in preparation for passing it through the bone tunnel.

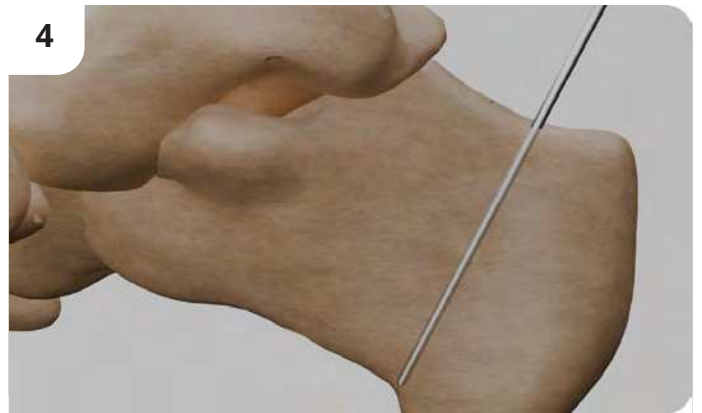
3



## Tendon Size Measurement

Determine the tendon size by pulling it through the holes in the tendon sizer. The tendon should be able to easily slide through the tunnel. The tunnel will determine the diameter of the screw being chosen.

4



## Insertion Hole Preparation

Insert a Ø1.6mm suture passer or k-wire into the bone at the location of the intended insertion hole.

5



### Select Tissue Protector

Select the tissue protector in the size corresponding to the tendon measurement and attach it to the tissue protector handle.

6



### Drill

Insert the corresponding size drill through the tissue protector over the k-wire and drill bicortically. After drilling carefully remove the drill and tissue protector. A depth gauge is provided to assist with length selection of the desired screw.

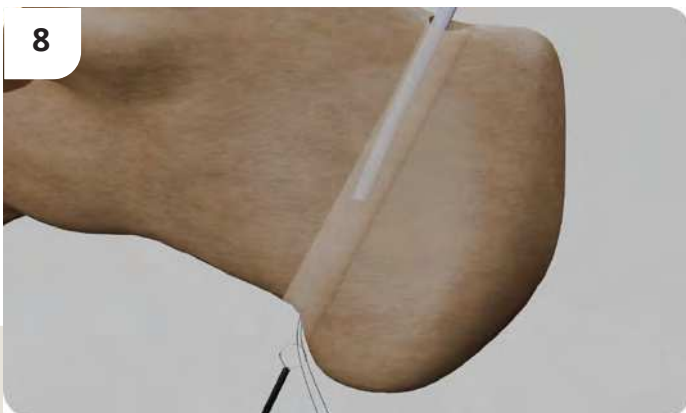
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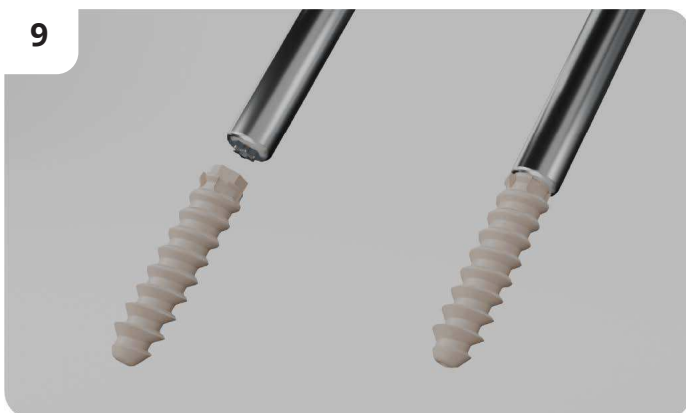
### Tendon Placement

Insert the suture into the nitinol loop of the suture passer and pass through the drilled hole. After the suture ends are pulled through, remove the suture passer. With the foot in slight plantarflexion as needed, pull the tendon into the drilled hole. Ensure that appropriate tension is being applied to the transferred tendon prior to fixation.

8



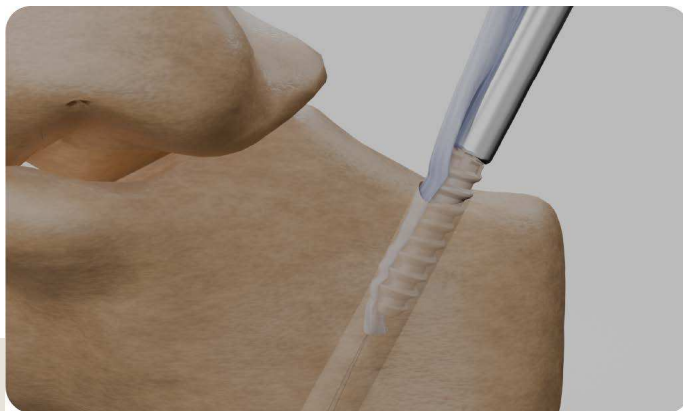
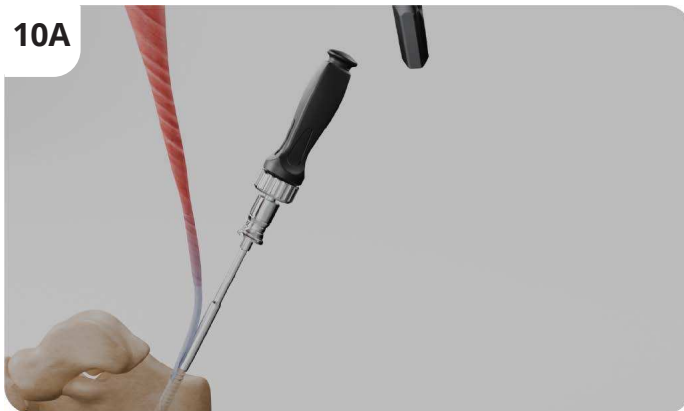
9



### Select Screw

Select the desired screw in the appropriate size (diameter/length). Assemble the modular handle to the preferred implant inserter (inner or outer interface) in the corresponding size and attach the inserter to the screw.

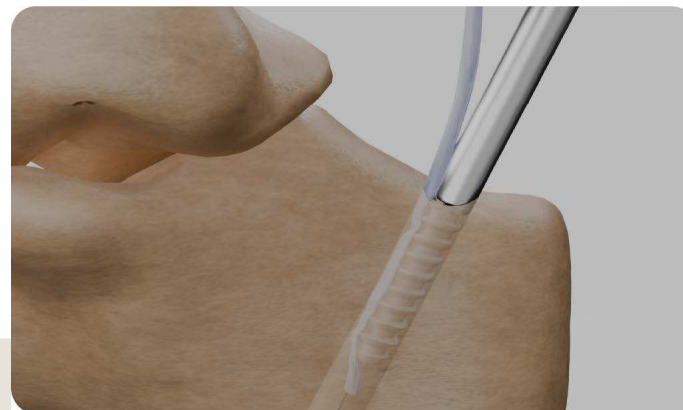
10A



## Screw Insertion

With the tendon in position, insert the screw into the hole. The interference screw can be impacted or threaded into position..

10B



Finish with a half turn clockwise so that screw is flush or slightly sub-flush with the bone.

11



Confirm screw placement via medical imaging, and then cut the suture ends.

## Post Notes

### • Closure and Post Op Care

Left to discretion of surgeon.

### • Revision / Removal

If removal or revision is necessary, the appropriately sized implant inserter should be used to attach to the screw and rotate counterclockwise to unthread.

## Contraindications

Use of the Multi-Drive Interference Screw System is contraindicated in the following instances:

- Active, suspected, or latent infection in the affected area
  - Patients with insufficient quantity or quality of bone and/or soft tissue or conditions causing poor blood supply
  - Sensitivity to implant material(s)
  - Where there is a possibility for conservative treatment
  - Patients who are physiologically or psychologically inadequate
  - Patients who are unwilling or incapable of following post-operative care instructions
- 

## Warnings and Precautions

- Re-operation to remove or replace implants may be required at any time due to medical reasons or device failure. If corrective action is not taken, complications may occur.
  - Use of an undersized implant in areas of high functional stresses may lead to implant fracture and failure.
  - Plates and screws, wires, or other appliances of dissimilar metals should not be used together in or near the implant site.
  - The implants are intended for single use only.
  - Instruments and K-wires are to be treated as sharps.
  - Do not use other manufacturers' instruments or implants in conjunction with the Multi-Drive Interference Screw System.
  - Do not re-sterilize Multi-Drive Interference Screw System implants.
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## MR Safety Information

The Multi-Drive Interference Screw System has not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration, or image artifact in the MR environment. The safety of the Multi-Drive Interference Screw System in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

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## Further Information

**CAUTION:** Federal Law (USA) restricts this device to sale by or on the order of a physician. This brochure describes the surgical technique used by Nvision Biomedical Technologies development surgeons, as the manufacturer of this device, Nvision Biomedical Technologies does not practice medicine and does not recommend this product or any specific surgical technique for use on any individual patient. The surgeon who performs any implant procedure is responsible for determining the appropriate product(s) and utilizing the appropriate technique(s) for said implantation in each individual patient.

For further information, please contact the Customer Service Department at:

### **Nvision Biomedical Technologies**

4590 Lockhill Selma  
San Antonio, TX 78249

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# Ordering Information



## Tray

| Part Number    | Description                 |
|----------------|-----------------------------|
| INTF-1001C-101 | Implant Caddy               |
| INTF-1001C-102 | Implant Caddy Lid           |
| INTF-1001C-103 | Instrument Caddy Part 1     |
| INTF-1001C-104 | Instrument Caddy Lid Part 1 |
| INTF-1001C-105 | Instrument Caddy Part 2     |
| INTF-1001C-106 | Instrument Caddy Lid Part 2 |

## Implants

| Part Number | Description                      |
|-------------|----------------------------------|
| INTF-40-10P | 4.0mm Diameter x 10mm long, PEEK |
| INTF-40-15P | 4.0mm Diameter x 15mm long, PEEK |
| INTF-50-15P | 5.0mm Diameter x 15mm long, PEEK |
| INTF-50-20P | 5.0mm Diameter x 20mm long, PEEK |
| INTF-60-20P | 6.0mm Diameter x 20mm long, PEEK |
| INTF-60-25P | 6.0mm Diameter x 25mm long, PEEK |

## Instruments

| Part Number       | Description                 |
|-------------------|-----------------------------|
| INTF-1000T-DRL40  | 4.0 Drill                   |
| INTF-1000T-DRL50  | 5.0 Drill                   |
| INTF-1000T-DRL60  | 6.0 Drill                   |
| INTF-1000T-MINS40 | Multidrive inserter 4.0     |
| INTF-1000T-MINS56 | Multidrive inserter 5.0/6.0 |
| HAN-1000T-AOSJ    | Handle                      |
| INTF-1000T-PASS   | Suture Passer               |
| INTF-1000T-SIZE   | Tendon Sizer                |
| CSRW-1000T-260    | Drill Guide Handle          |
| CSRW-1000T-284    | 4.0mm Tissue Protectors     |
| CSRW-1000T-286    | 5.0mm Tissue Protectors     |
| CSRW-1000T-288    | 6.0mm Tissue Protectors     |
| TB-1001T-DPG      | Depth Gauge                 |
| CSRW-1000T-345    | K-Wire                      |



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