Silicone Finger Implant

Suited for both MCP and PIP joint replacement

SURGICAL TECHNIQUE

TriMed®

Identify the correct size of implant prior to surgery using a recent X-ray, if the X-ray suggests an intermediate size to those available, selection of the smaller size is recommended.

1 Preparation

For MCP

- Expose the joint by making a single transverse incision over the necks of the metacarpal bones, or a longitudinal incision over the dorsum of the MCP joint. Preserve the joint capsule as far as possible for later repair.
- Care should be taken to avoid damage to the dorsal veins and digital nerves.
- Expose the joint so that the MCP joint and origins of the collateral ligaments are visible.

For PIP

- Expose the PIP joint using either a lateral or C-shaped dorsal incision.
- The central tendon is then cut longitudinally from the base of the middle phalanx to the distal two-thirds of the proximal phalanx.
- The extensor mechanism can then be deflected gently palmward without disturbing the insertion of each half of the central tendon into the middle phalanx.

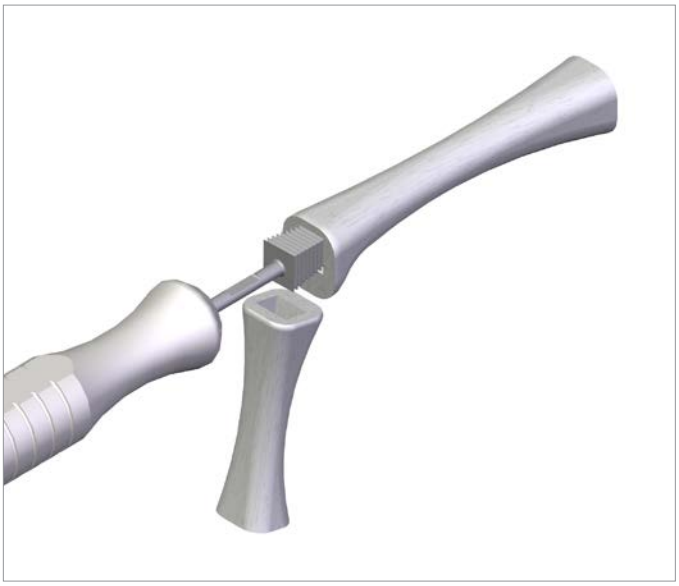
2 Removing the damaged bone

For MCP

- Using an oscillating saw remove the head of the metacarpal at or distal to the metaphyseal flare. Take care to protect collateral ligaments while using the saw.
- If necessary, trim the base of the proximal phalanx, removing only the minimum amount of bone. Remove osteophytes and sharp edges to form a good surface for the distal side of the implant to sit against with the subchondral bone intact.

For PIP

- Using an oscillating saw remove the head of the proximal phalanx distal to the metaphyseal flare.
- If possible, leave the collateral ligaments intact otherwise they can be reattached using a Dacron suture. If necessary, remove the base of the middle phalanx, but only remove the minimum amount of bone. Otherwise, simply remove osteophytes and sharp edges to form a good surface for the implant to hinge against.



3 Opening up the canals

- Using the starter awl, puncture the proximal end of the phalanx along its axis and then the distal end of the metacarpal.
- Open up the canals using the proximal/distal rasps where applicable, ensuring the dorsal side is facing upwards. Initially the smaller rasps should be used and then increased to the intended implant size.
- Do NOT rotate the rasps or hit them with a mallet.

4 Preparation of the implant

- Use a fine burr to remove osteophytes and sharp edges that could damage the implant.
- Irrigate the bone canals with saline solution to remove any bone debris.

5 Trial fit

- Insert a blue implant sizer. It is easiest to flex both the finger and the sizer and insert the longer proximal stem first.
- Ensure that the finger has full movement and that the flat sides of the hinge area fit flush against the bone on both sides.
- Ensure that the joint is not too tightly packed Conservatively remove additional bone as in step 2 if required.

6 Implanting and closing

- Remove the sizer and insert the implant in the same way as the trial. Again, ensure a good fit and that the finger has a full range of motion.
- Atraumatic forceps should be used to avoid damaging the implant.
- Perform any necessary soft tissue reconstruction and close the wound in the usual manner.
- The implant becomes stabilized by the encapsulation process and no permanent fixation is required.
  Joint stability is achieved from reconstruction of the ligamentous and musculotendinous systems.

7 Removal of the implant

- If removal of the implant is required due to revision or failure of the device, follow instructions of Step 1 Preparation.
- Remove the implant using atraumatic forceps to avoid damaging the implant.
- According to clinical judgement, follow the surgical technique to either replace the implant or consider alternative treatment options.
- Perform any necessary soft tissue reconstruction and close the wound in the usual manner.
  Please contact TriMed using the contact information located on the back cover of this surgical technique to receive instruction for returning the explanted device for investigation.

INDICATIONS

In rheumatoid or post-traumatic disabilities of the MCP joint with:

- Fixed or stiff MCP joints
- X-ray evidence of joint destruction or subluxation
- Ulna drift, not correctable by more conservative treatment
- Contracted intrinsic and extrinsic musculature and ligament system
- Associated stiff interphalangeal joints

In rheumatoid, degenerative or post-traumatic disabilities of the PIP joint with:

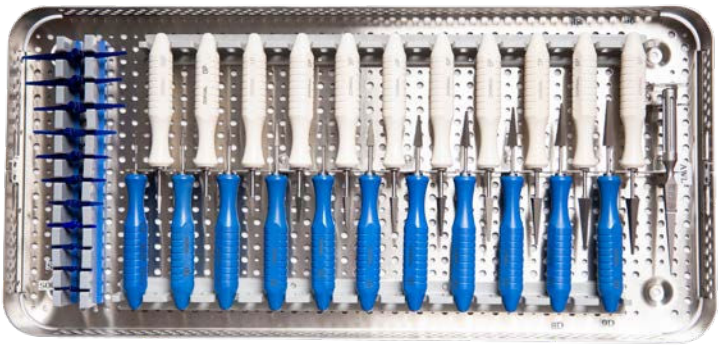
- Destroyed or subluxed joint
- Stiffened joints which could not be corrected by a joint tissue release

CONTRAINDICATIONS

- Infection
- Un-cooperative patient
- Inadequate condition of bone, skin or neurovascular system
- Permanently damaged tendon system
- Potentially successful conservative treatment
- Young patients with open epiphyses

FEATURES

- Manufactured from high tear resistant implant grade silicone
- Eleven, evenly scaled sizes for comprehensive anatomical fit
- Simple, precise instrumentation



Instrument and Sizer Set

Implants

Catalogue No	Size
OSTF-00	00
OSTF-0	0
OSTF-1	1
OSTF-2	2
OSTF-3	3
OSTF-4	4
OSTF-5	5
OSTF-6	6
OSTF-7	7
OSTF-8	8
OSTF-9	9

Sizers

Catalogue No	Size
OSTF-S00	00
OSTF-S0	0
OSTF-S1	1
OSTF-S2	2
OSTF-S3	3
OSTF-S4	4
OSTF-S5	5
OSTF-S6	6
OSTF-S7	7
OSTF-S8	8
OSTF-S9	9

Instrument Sets

Catalogue No	Size
OSTF-INS8	Instrument Tray, Empty

Individual Rasps also available on request

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