

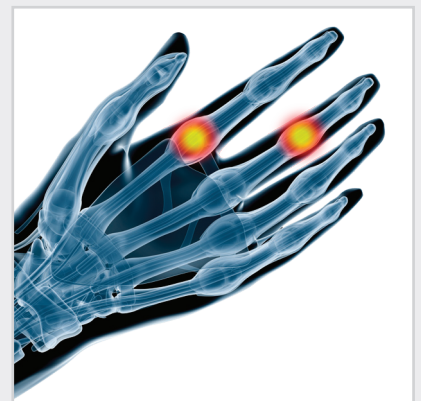
OSTEOTEC

Silicone Finger Implant™

Manufactured from high tear resistant implant grade silicone
Surgical Technique



- Eleven, evenly scaled sizes for comprehensive anatomical fit
- Simple, precise instrumentation
- Designed and manufactured by an independent British company



Suited for both MCP and
PIP joint replacement

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

Use an oscillating saw to remove the metacarpal head whilst retaining some of the metaphyseal flare.

If necessary, remove the head of the proximal phalanx, removing only the minimum amount of bone. Otherwise, simply remove osteophytes and sharp edges to form a good surface for the distal side of the implant to sit against.

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.

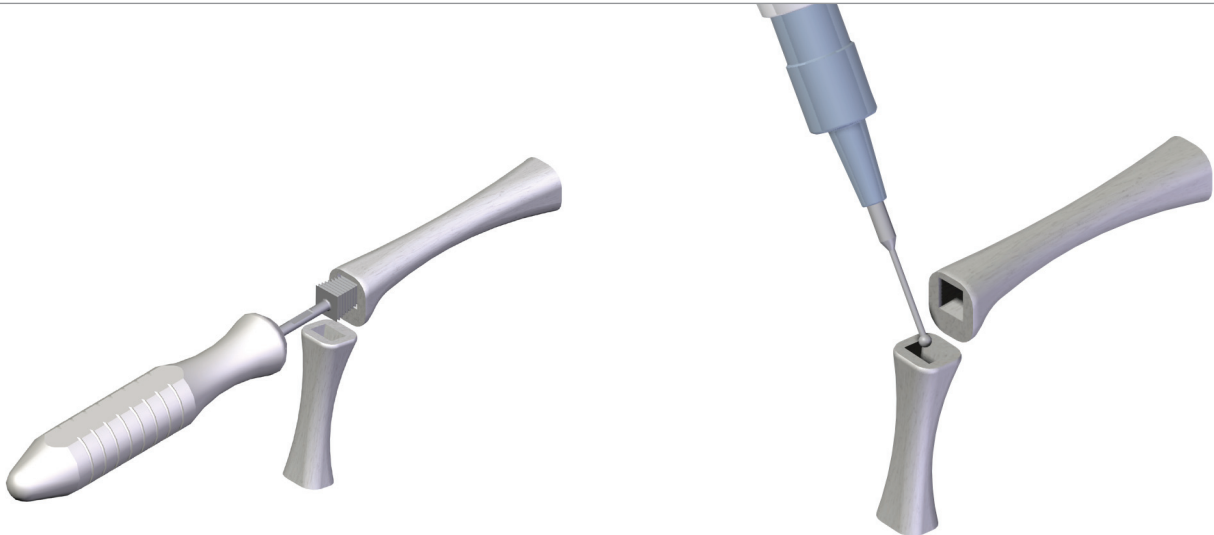
Indications

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



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.

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

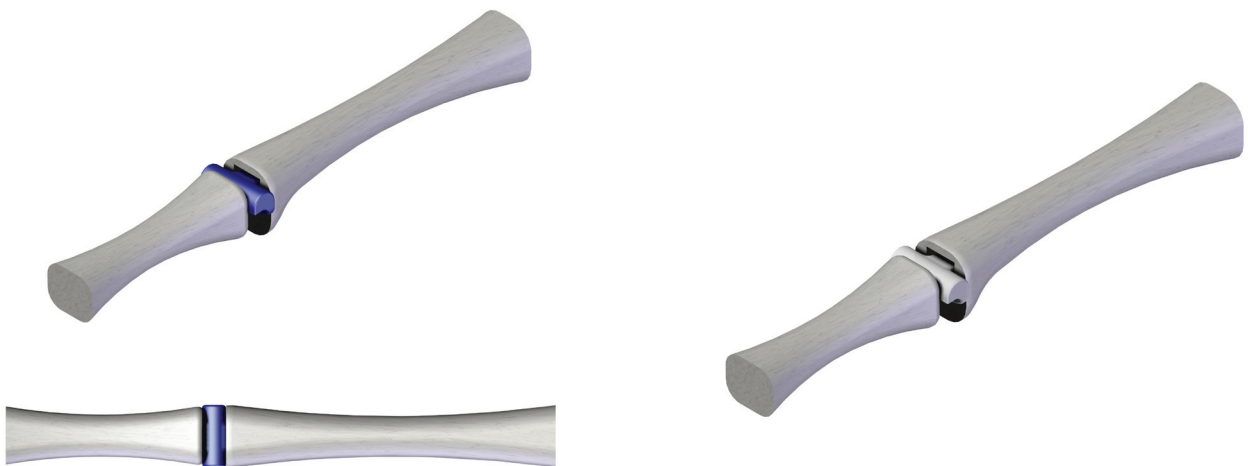


Figure 1

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 (Figure 1)

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 Osteotec using the contact information located on the back cover of this surgical technique to receive instruction for returning the explanted device for investigation.

OSTEOTEC Silicone Finger Implant™

Implant



Sizer



Instrument Set



Sizers and Sterilisation Tray



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
OSTF-SIZ1	Sizing Set, 1 of each, Blue, Non-Sterile

Instrument Sets

Catalogue No.	Description
OSTF-INS1	Set of eight Proximal and eight Distal Bone Rasps, Starter Awl and 11 Sizers
OSTF-INS2	Sizer Sterilisation Tray, Empty
OSTF-INS3	Instrument Tray, Empty



Individual Rasps also available on request

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



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