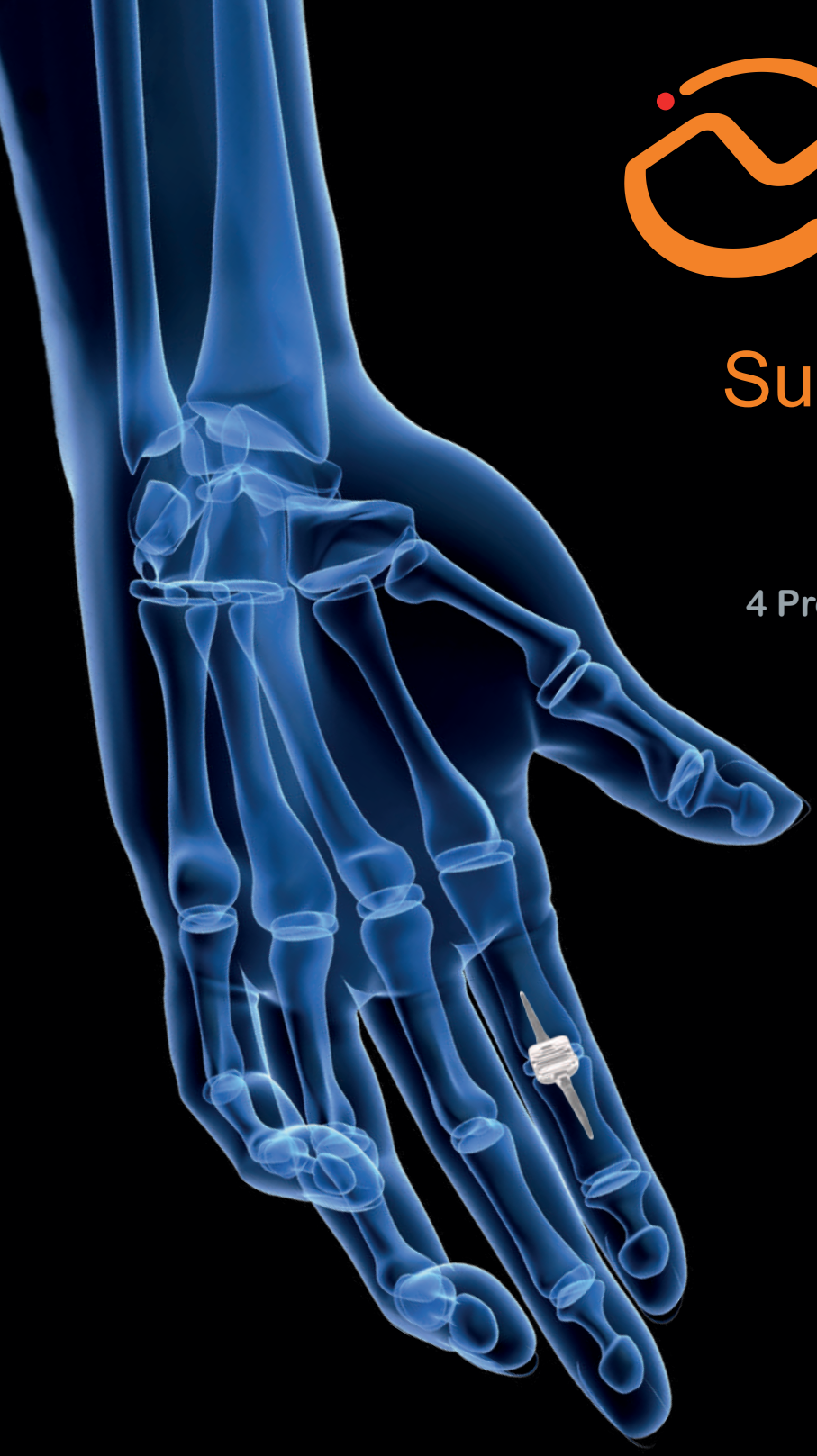
BRM® Extremities

Surgical Technique

Digitalis

4 Proximal interphalangeal implants

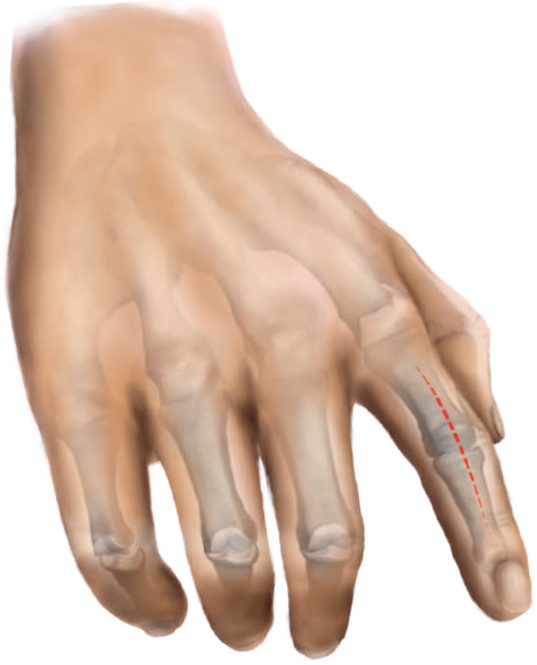


PIP

Osteoarthrosis
Rheumatoid arthritis
Destroyed articular surfaces
Ankylosed joints or with limited range of motion
Non-functional joint due to inadequate bony alignment

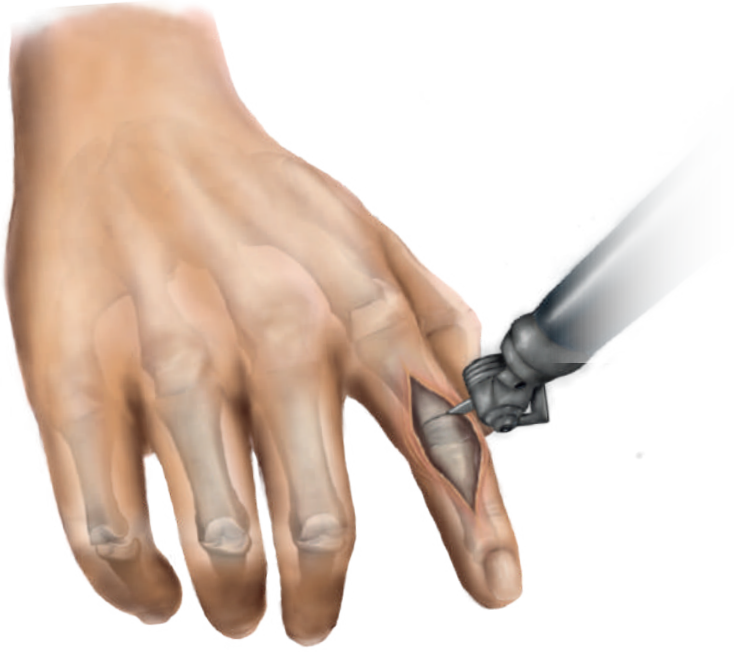
CE 0426 BRM Extremities Srl – Via Lorenzo Mascheroni 29 – 20145 Milano (MI) Italia

The following guidelines are indicative; it is responsibility of the surgeon to evaluate the adequacy and the use of this technique according to his experience and his medical skills.



1 Articulation exposure

Make a gradual curved dorsal incision over the PIP joint. Carry the dissection up to the extensor tendon bundle. Gently lift the skin flaps by careful dissection to expose an appropriate portion of the extensor tendon bundle. Make an incision between the central tendon of the extensor tendon bundle and the lateral fascia on one side of the finger using a n.15 blade. Occasionally, it may be necessary to make an incision between the central tendon and the lateral fascia on the opposite side of the finger. Incise the dorsal capsule longitudinally to expose the dorsal PIP joint. Some recession of the dorsal portion of the collateral ligaments may be required to allow for proper exposure of the proximal interphalangeal joint.



2 Articular surfaces osteotomy

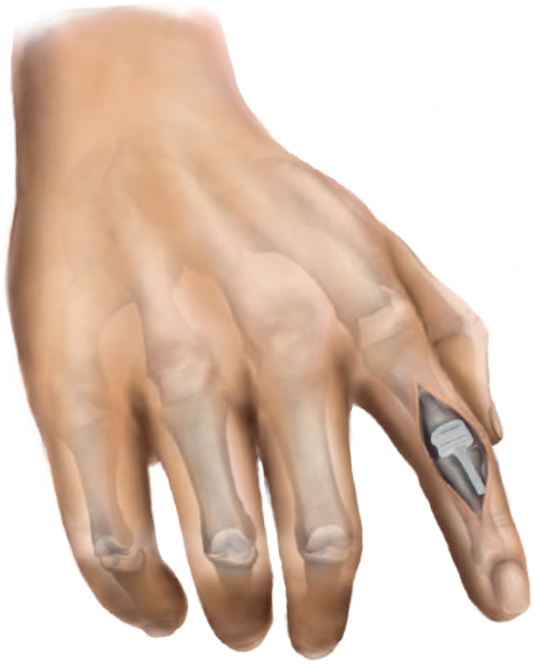
Protecting the central tendon with retractors, use a micro-oscillating saw to resect the proximal phalanx head and the base of the medial one. Remove any osteophytes or sharp spurs from the joint.

3 Size choice

Starting from the smallest size, insert the test spacer located inside the instruments supplied with the device, test it and choose the one that best fits anatomically within the joint. Check the perfect adhesion of the spacer to the surface of the resected bone planes, checking the mobility, alignment and stability of the implant.

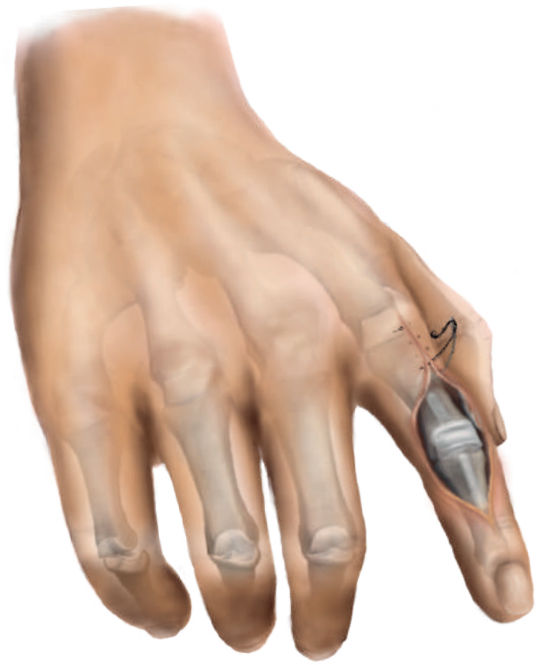
4 Preparation of the medullary canals

Manually locate the medullary canals of the proximal and medial phalanxes, through the use of a reamer. Once the canal has been identified, insert the rasp (mounted on the appropriate rasp holder) and rasp the relative medullary canals (regardless of whether you start with the proximal or medial one), taking care to keep the upper, lateral and medial edges of the rasp parallel with the corresponding edges of the relevant bone portions. To avoid rotation during broaching, use a feed-retract scraping method. Advance until reaching the depth corresponding to the chosen size, clearly indicated on the rasp provided within the supplied instruments.



5 Final implant

Insert the final implant after the size assessment. At this stage it is also possible to use the test spacers to confirm correct sizing.



6 Wound closure

Use one or two tension sutures to have the extensor tendon positioned directly above the midline of the dorsal portion of the proximal interphalangeal joint. Suture capsule and skin and subcutaneous tissues.
Note: In hard cases, it may be necessary for the collateral ligament to be severed on one side by the proximal phalanx to obtain sufficient exposure of the joint. In this case, repair the collateral ligament using non-absorbable n.4-0 monofilament sutures through the holes in the proximal phalanx after implant placement. If necessary, repair the capsule and extensor mechanism with n.4-0 non-absorbable multifilament sutures. Place a drain and close the skin with a compliant dressing, keeping the PIP joint in a very slight flexion of 10-20 degree.

Post-operative care: Place a bulky splint dressing, keeping the finger in full extension. Leave the splint in place for 5-8 days, before starting the rehabilitation treatment.

Removal: If implant removal is required, make a gradual curved dorsal incision over the affected PIP joint (proceeding medially to the extensor tendon) and perform a full thickness capsulotomy. Remove the silicone component, with the help of a needle holder, and perform a revision of the implant or an arthrodesis operation depending on the most appropriate clinical indication for the case. Re-suture the capsule and the patient's skin.

IMPLANT

CODE	DESCRIPTION
DDG3T02001	DIGITALIS PIP Spacer – Size 1
DDG3T02002	DIGITALIS PIP Spacer – Size 2
DDG3T02003	DIGITALIS PIP Spacer – Size 3
DDG3T02004	DIGITALIS PIP Spacer – Size 4

Main contraindications

- Inadequate musculo-tendon and skin system
- Inadequate neuro-vascular system
- Bone demineralization at a significant stage
- Inadequate bone stock
- Child patient
- Infection in progress and active sepsis

INSTRUMENTS

CODE	DESCRIPTION
SET.DIGITALIS	Digitalis complete Instruments Set
DDGI000001B	Digitalis instruments sterilization box (empty)
DDGI203000	Digitalis Handle
DDGI201003	Digitalis MCP Multisize Trial
DDGI201004	Digitalis PIP Multisize Trial
DDGI201001	Digitalis MCP Reamer
DDGI202001	Digitalis MCP Rasp
DDGI201002	Digitalis PIP Reamer
DDGI202002	Digitalis PIP Rasp
DDGI201013	Silicone MCP Digitalis trial - size 1
DDGI201023	Silicone MCP Digitalis trial - size 2
DDGI201033	Silicone MCP Digitalis trial - size 3
DDGI201043	Silicone MCP Digitalis trial - size 4
DDGI201053	Silicone MCP Digitalis trial - size 5
DDGI201014	Silicone PIP Digitalis trial - size 1
DDGI201024	Silicone PIP Digitalis trial - size 2
DDGI201034	Silicone PIP Digitalis trial - size 3
DDGI201044	Silicone PIP Digitalis trial - size 4

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CE 0426

BRM EXTREMITIES Srl
Via Lorenzo Mascheroni 29
20145 Milano (MI) Italy
t+39 (02)89415508
www.brm-extremities.com

Headquarter
Via Papa Giovanni XXIII, 9
23862 Civate (LC) Italy
t+39 (0341)1693087
info@brm-extremities.com