



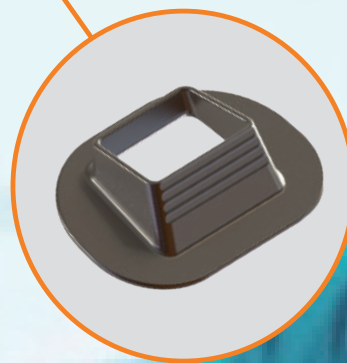
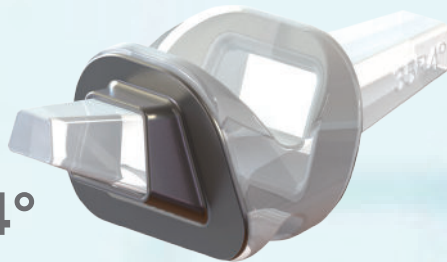
BRM[®]
ExtremitiesS

Surgical technique **NewPrim**[®]

Left 4°



Right 4°

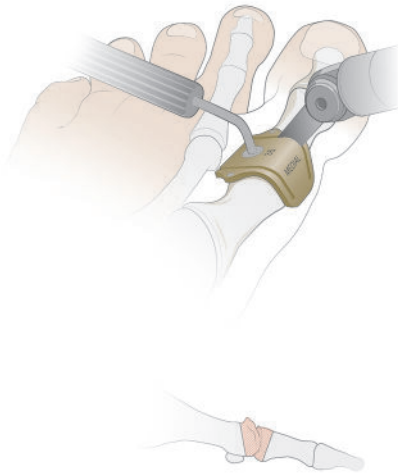
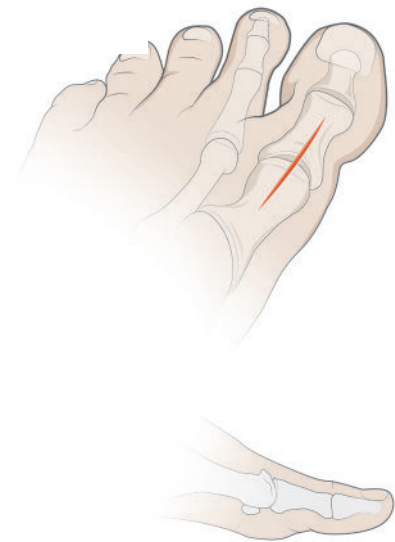


**Osteoarthritis
Reumatoid arthritis
Destroyed articular surfaces
Ankylosed joint
Limited range of joint motion**

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 Dorso-medial incision

Make a longitudinal dorsal incision along the long extender tendon of the big toe and perform the full thickness capsulotomy. In this way the deformed and hypertrophic bone portions are completely exposed and can be removed through oxivora and saw.



2 Resection of metatarsal head and phalanx base

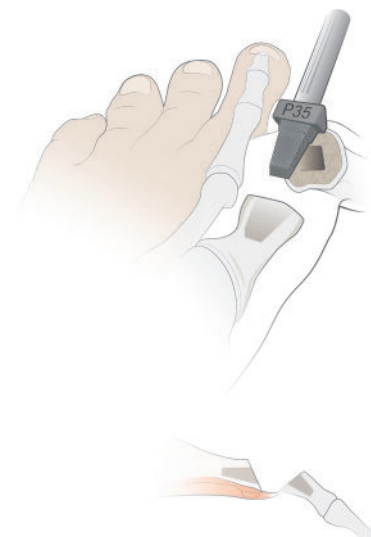
Evaluate the most appropriate cutting guide (20/30, 35 or 40/50): stick the cutting guide at the best in the bone portions. Guide must be positioned along the dotted line drawn on the dorsal and medial sides of the guide itself. The tab of the inferior side of the guide shall be placed within the joint space. Then start to resect metatarsal and phalangeal surfaces, using a 0,8mm blade and paying attention to the short flexor of the hallux.

Remove the resected surfaces

3 Canal preparation

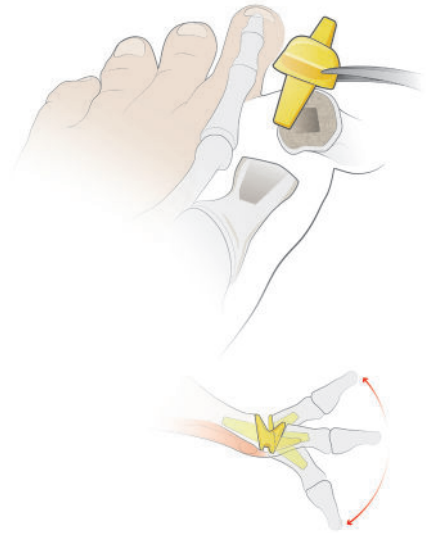
Manually identify the metatarsal and phalangeal channels using a ferrule. Mount the rectangular rasp (of the measure equivalent to the chosen implant size) on the appropriate rasp holder and use it to prepare metatarsal canal; at the same use trapezoidal rasp for phalangeal canal. It's the same to first rasp metatarsal channel or phalangeal one; it's important to take care to keep upper, lateral and medial edges of the rasp parallel with the corresponding edges of metatarsal and phalangeal portions.

Rasp until reach full contact with bone surfaces.



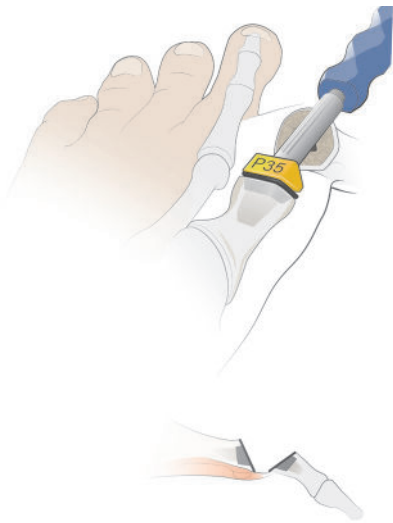
4 Trial sizer

Insert the trial sizer (of the size that is presumed to be definitive) starting from proximal stem. Check that the spacer adheres perfectly to resected bone surfaces and control the mobility and stability of the implant.



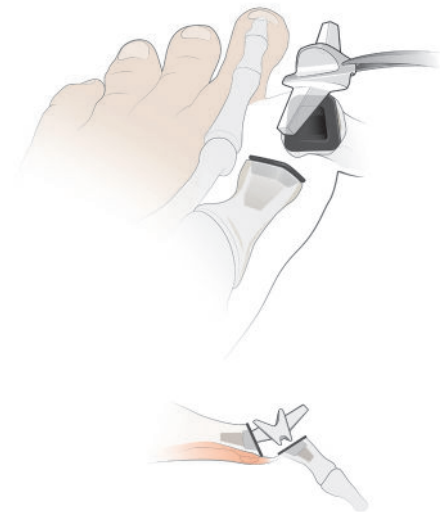
5 Grommets placement

Once the final implant has been identified, open the package and extract the grommets, but not the spacer. Check grommets on trial sizer to be sure to identify the correct portions and press-fit them in the medullary canals using impactor instrument: the impactor with rectangular section is used for positioning of the metatarsal grommet, trapezoidal impactor for phalangeal grommet. Use Volkmann spoon to remove possible bone residues that could interfere with spacer's stem.



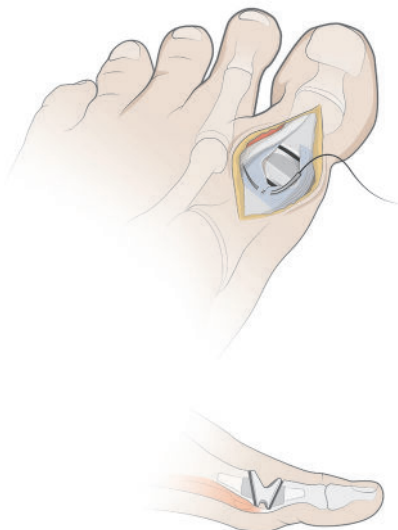
6 Final implant

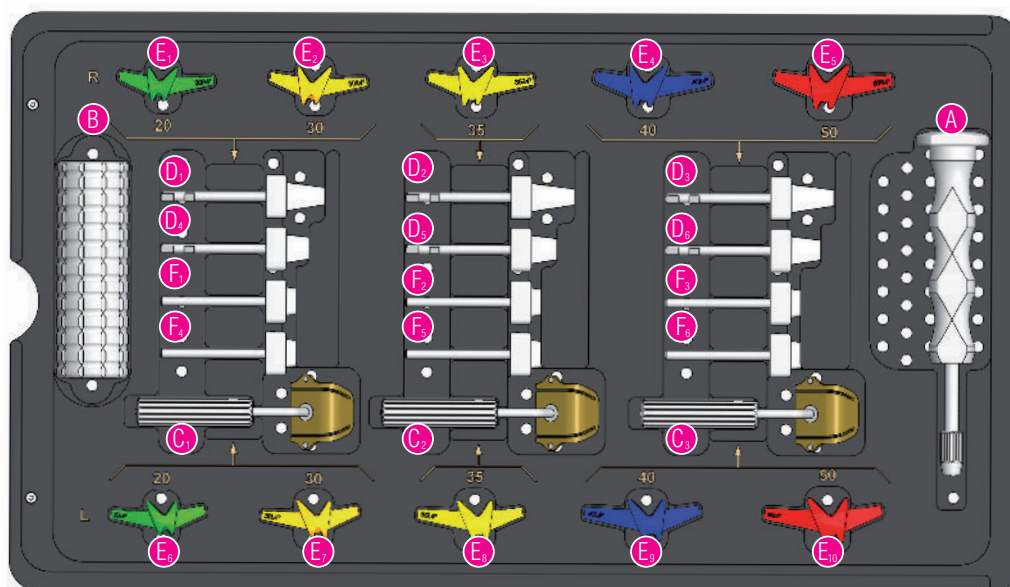
Insert the final implant starting from proximal stem and test the mobility and the stability of the joint.



7 Capsule and skin suture

Suture the joint capsule, subcutaneous and cutaneous plans paying attention to completely cover the implant; medicate and bandage the wound.





INSTRUMENTS

Reference	Code	Description
-	BRDNEWPTOOLS	Newprim Sterilization Box (all instruments included)
-	BRDNEWPTSBOX	Newprim Sterilization Box (no instruments)
A	BRDNPTHANDLE	Multifunctional Newprim Handle
B	BRDNPTHANDSU	Newprim Handle Sliding Unit
C ₁	BRDNPTCG2030	20-30 Newprim Cutting Guide
C ₂	BRDNPTCG3535	35 Newprim Cutting Guide
C ₃	BRDNPTCG4050	40-50 Newprim Cutting Guide
D ₁	BRDNPTR2030P	20-30 Newprim Metatarsal Rasp
D ₂	BRDNPTR3535P	35 Newprim Metatarsal Rasp
D ₃	BRDNPTR4050P	40-50 Newprim Metatarsal Rasp
D ₄	BRDNPTR2030D	20-30 Newprim Phalangeal Rasp
D ₅	BRDNPTR3535D	35 Newprim Phalangeal Rasp
D ₆	BRDNPTR4050D	40-50 Newprim Phalangeal Rasp
E ₁	BRDNPTTEST20L	20 Left Newprim Trial Sizer (Green)
E ₂	BRDNPTTEST30L	30 Left Newprim Trial Sizer (Orange)
E ₃	BRDNPTTEST35L	35 Left Newprim Trial Sizer (Yellow)
E ₄	BRDNPTTEST40L	40 Left Newprim Trial Sizer (Blue)
E ₅	BRDNPTTEST50L	50 Left Newprim Trial Sizer (Red)
E ₆	BRDNPTTEST20R	20 Right Newprim Trial Sizer (Green)
E ₇	BRDNPTTEST30R	30 Right Newprim Trial Sizer (Orange)
E ₈	BRDNPTTEST35R	35 Right Newprim Trial Sizer (Yellow)
E ₉	BRDNPTTEST40R	40 Right Newprim Trial Sizer (Blue)
E ₁₀	BRDNPTTEST50R	50 Right Newprim Trial Sizer (Red)
F ₁	BRDNPTI2030P	20-30 Newprim Metatarsal Grommets Impactor
F ₂	BRDNPTI3535P	35 Newprim Metatarsal Grommets Impactor
F ₃	BRDNPTI4050P	40-50 Newprim Metatarsal Grommets Impactor
F ₄	BRDNPTI2030D	20-30 Newprim Phalangeal Grommets Impactor
F ₅	BRDNPTI3535D	35 Newprim Phalangeal Grommets Impactor
F ₆	BRDNPTI4050D	40-50 Newprim Phalangeal Grommets Impactor