

EPORE[®] ACETABULUM SPACER





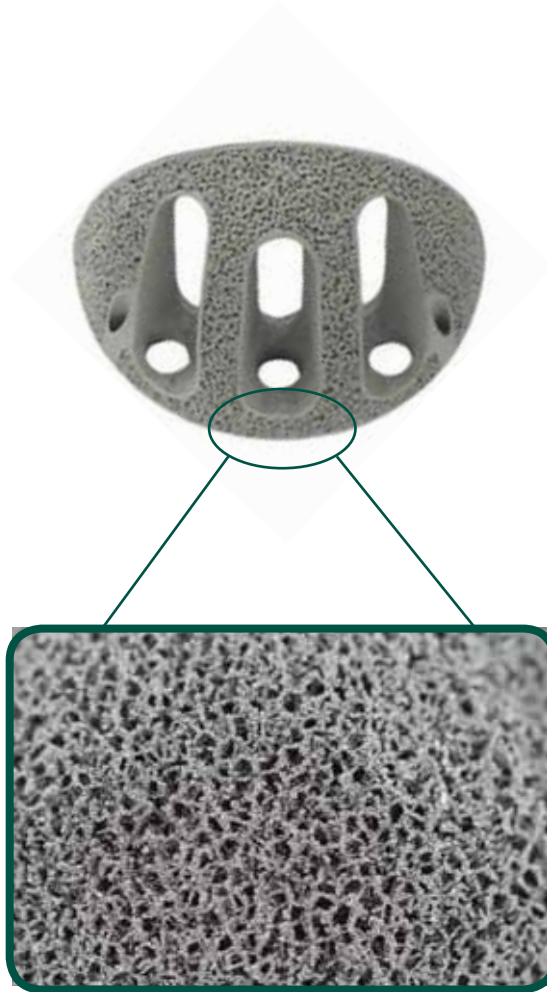
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Nota Bene: The described surgical technique is the suggested treatment for the uncomplicated procedure. In the final analysis the preferred treatment is that which addresses the needs of the individual patient.

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DESIGN CHARACTERISTICS



<i>mechanical properties</i>	
porosity	60 %
rod thickness	330-390 μm
rel. E-module	3 GPa

EPORE[®] is a highly porous structure based on titanium alloy TiAl_6V_4 . Due to its excellent material properties like ductility, corrosion resistance and high fatigue strength titanium alloy composes an ideal raw material basis for the EPORE[®] structure.

High porosity and a low modulus of elasticity are supporting the brilliant biological in-growth.

The rod thickness is characterized by a thickness of 330-390 μm and features a high affinity with trabecular bone tissue.

PREOPERATIVE PLANNING

Preoperative planning and precise surgical techniques are mandatory for optimal results. The instructions and the procedure described in the surgical technique must be adhered to. Familiarity with the recommended surgical technique and its careful application is essential to achieve the best possible outcome.

Before surgery a surgical planning with regard to the dimensions of the prosthesis and the positioning of the implant components in the bone has to be carried out by the surgeon.



Further prior to surgery the following should be ensured:

- all needed components are available during surgery. An adequate number of various implant components should be available for surgery.
- all instruments for the implantation are present and are matching the corresponding implants. The insertion instruments must be adapted to the implant. The implants may only be used with the instruments provided by implantcast GmbH. An exception are exclusively the standardized instruments used during surgery.

SURGICAL TECHNIQUE

Please expose the hip joint completely.

Resect the articular capsule and the acetabular labrum. Dissect the bony rim of the acetabulum, if possible, completely (Fig. 1).

Remove the osteophytes and the connective tissue of the acetabular fossa. In order to rebuild normal anatomical proportions, the acetabulum should be medialised to the extent to which you are able to reconstruct the preoperatively chosen centre of rotation.

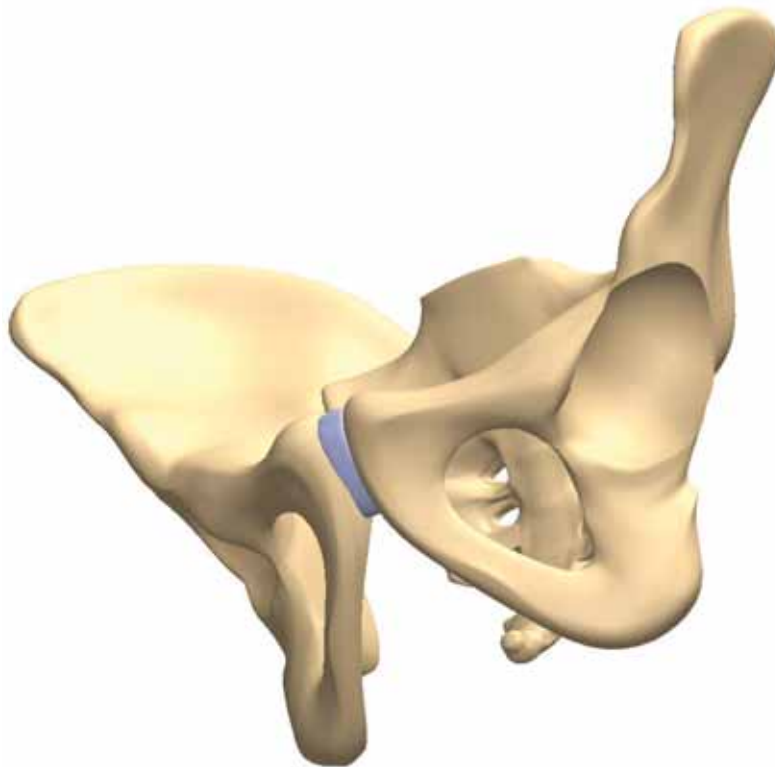


Figure 1

The existing defects have to be evaluated intraoperative very carefully. Please note the grade, position as well as the kind of the bone defect. The preparation of the acetabulum is performed via reamers with increasing diameters. After completion the defect has to be evaluated again.

SURGICAL TECHNIQUE

To prepare the acetabular bone, reamers of outer diameters in increments of 2mm are available.

Align the reamer anatomically, in abduction of about 45° and anteversion of 20 - 30°. By using the reamer the acetabulum is prepared until bleeding subchondral bone is reached.

Please note that the posterior and anterior acetabular rim are the references for sizing and therefore should be preserved accordingly.

There are spacer with the inner diameter of 54, 58, 62 and 66 mm available only, the reaming has to meet one of these four sizes.

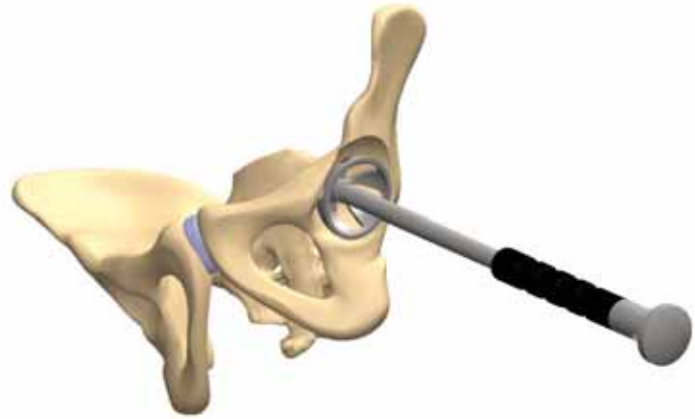


Figure 2

Sizing

Using the trial shells of the correct diameter (last reamer size), the size of the prepared implant bed is checked (Fig. 2).

The slots of the trial shells are used to investigate the bone contact between the shell and the prepared acetabulum (Fig. 2).

For the determination the size of the defect use the trial shell and the correspondent trial spacer (Fig. 3).

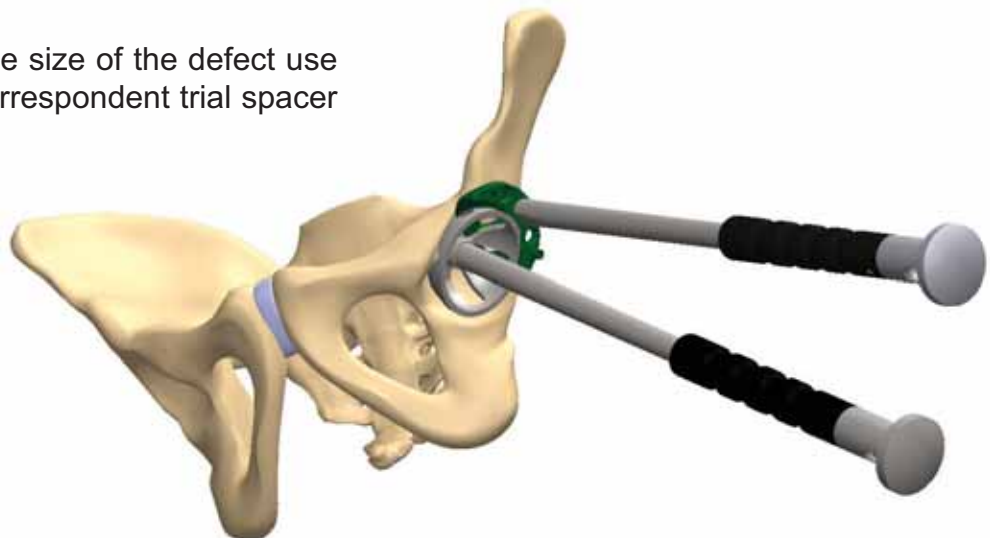


Figure 3

SURGICAL TECHNIQUE

Remove the trial shell carefully, but leave the trial spacer in place and fix the bone by the inserting of two pins (Fig. 4).

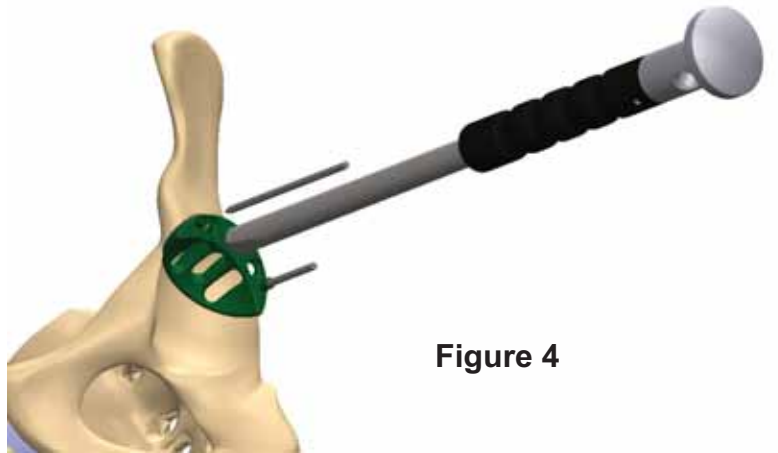


Figure 4

Double check the Press-Fit and the seating by inserting the trial shell again (Fig. 5).

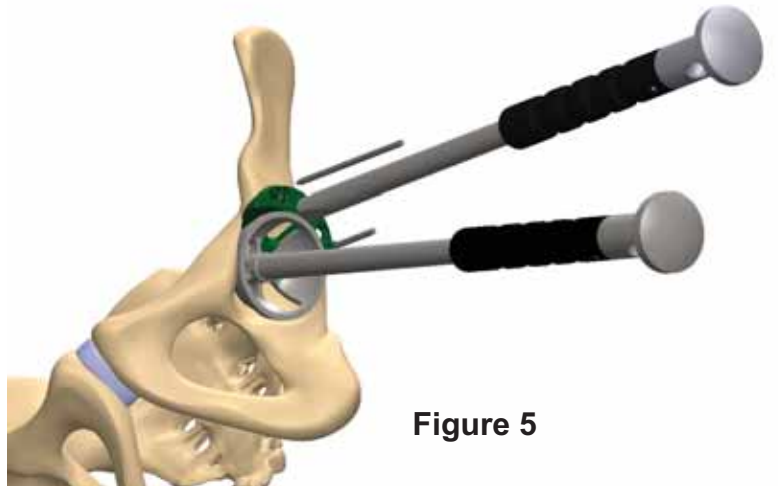


Figure 5

Remove the trial spacer from the acetabulum but leave the two fixation pins in the acetabulum as a guide for the chosen implant (Fig. 6).

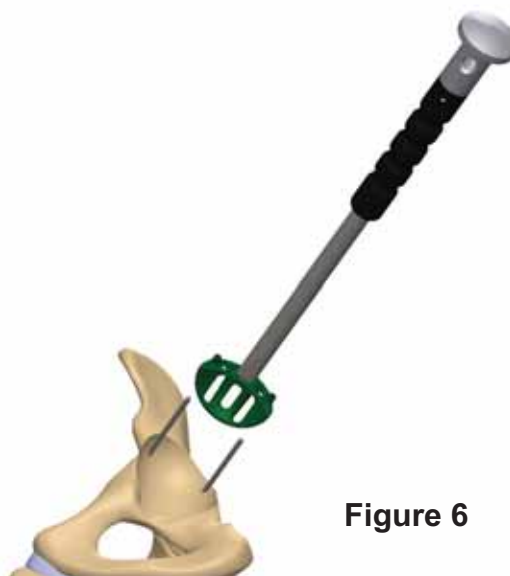


Figure 6

SURGICAL TECHNIQUE

INSERTING OF THE IMPLANT

Mount the impactor to the spacer implant of the correct size. Insert the spacer over the remaining fixation pins and impact it carefully (Fig. 7).

For additional stability screws can be placed in each of the three segments of the spacer. Make sure to use only one screw per segment (vertical or transversal; Fig. 8).

Combine one of the drill bits, 35mm or 56mm to the flexible drill shaft and prepare the screw holes.

For determining the screw length use the depth gauge.



Figure 7

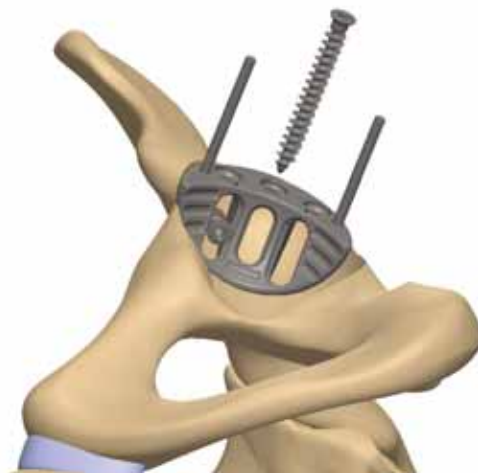


Figure 8



Figure 9

SURGICAL TECHNIQUE

Usage of the implant (EcoFit® cup)

Before seating the Press-Fit cup please double check the position by use of the trial shell.

The acetabulum spacer has to be firmly seated and fixed stable in the bone independent from the following cup implantation.

Insert the bone cement to fix the Press-Fit cup to the spacer. Use only a small amount of cement to make sure that no cement is creeping into the acetabulum.

Before cement hardening the cup has to be inserted in the correct direction. Depending on the requirements the drill hole of the cup can be aligned accordingly to the holes of the acetabulum spacer.

Additional screws might be used to support the fixation of the Press-Fit cup.



Figure 10

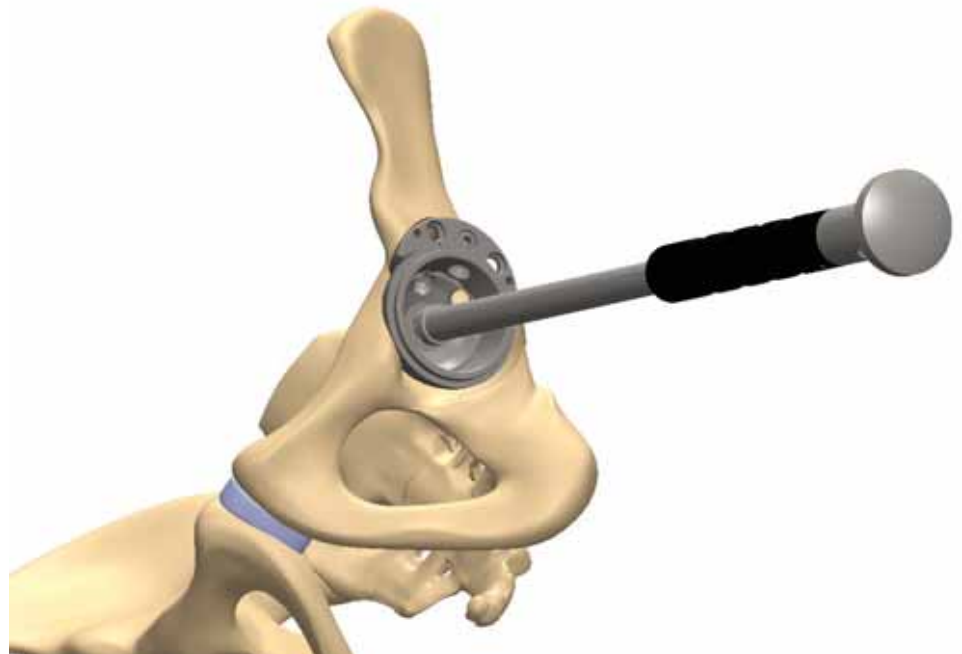


Figure 11

SURGICAL TECHNIQUE

Usage of the Implantat (MUTARS® RS Cup)

The acetabulum spacer has to be firmly seated and fixed stabile in the bone independent from the following cup implantation. (Fig. 12).

Before inserting the cup implant the alignment and the position must be checked again with the MUTARS® RS Cup trial cup (Fig. 13).

Mark the position of the caudal flange through the slot of the trial cup and prepare the bone for the flange by using the small chisel first (Fig. 14)

FURTHER SURGICAL STEPS CAN BE TAKEN FROM THE SURGICAL TECHNIQUE MUTARS® RS CUP.

By applying the bone cement on the concave cup contact area, it must be looked after that the cement is not wearing into the acetabulum, so that the ingrowth of EPORE® structure into the bone is not impeded.

Before cement hardening the cup has to be inserted in the correct direction. Depending on the requirements the drill hole of the cup can be aligned accordingly to the holes of the acetabulum spacer.

Additional screws might be used to support the fixation of the Press-Fit cup.

ADVICE:

Cement which has been leaked through the unsealed holes must be completely removed before placing the inserts.



Figure 12

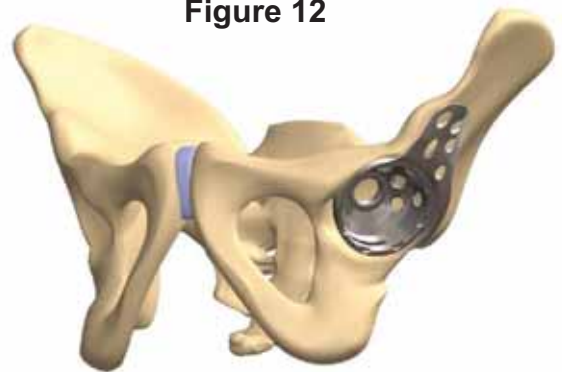


Figure 13



Figure 14



Figure 15

EPORE[®] acetabulumspacer

PRODUCT- INFORMATION

IMPLANTS reference number.....	13
INSTRUMENTS with reference number.....	14



IMPLANTS

EPORE® acetabulum spacer
mat.: implan®[®], TiAl₆V₄ acc. to ISO 5832-3

REF	size
02955410	54/10
02955415	54/15
02955420	54/20
02955810	58/10
02955815	58/15
02955820	58/20
02956210	62/10
02956215	62/15
02956220	62/20
02956610	66/10
02956615	66/15
02956620	66/20



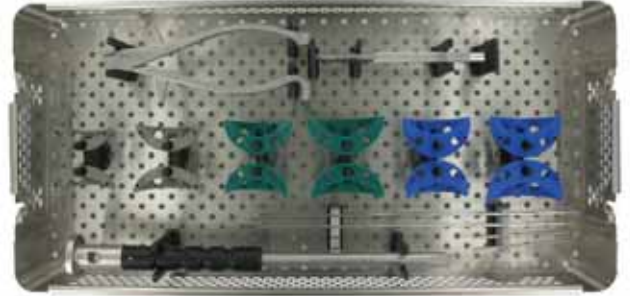
spongiosa screw flat head Ø 6,5 mm
mat.: implan®[®], TiAl₆V₄ acc. to ISO 5832-3

REF	size
0280-1015	15mm
0280-1020	20mm
0280-1025	25mm
0280-1030	30mm
0280-1035	35mm
0280-1040	40mm
0280-1045	45mm
0280-1050	50mm
0280-1055	55mm
0280-1060	60mm
0280-1065	65mm
0280-1070	70mm
0280-1075	75mm
0280-1080	80mm

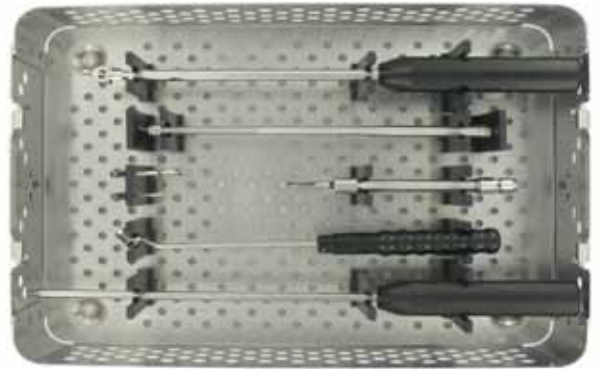


INSTRUMENTS

EPORE® acetabulum spacer container
72952000



screw instrument container
79997001



INSTRUMENTS

EPORE® acetabular impactor
72951000



pin extractor
75120800



fixation pin 3,2mm x 300mm
15mm threaded
42240034



fixation pin 3,2mm x 97mm
42230008



pin inserter 3,2 mm
42230006



EPORE® acetabulum trial spacer

72955410 size 54/10
72955415 size 54/15
72955420 size 54/20
72955810 size 58/10
72955815 size 58/15
72955820 size 58/20
72956210 size 62/10
72956215 size 62/15
72956220 size 62/20
72956610 size 66/10
72956615 size 66/15
72956620 size 66/20



INSTRUMENTS

flexible screw driver 3,5mm
02701002



screw driver long
02801006



depth gauge
02821007



angled drill guide 3,2mm
02821001



flexible drill shaft
02821000

drill bit
02821003 3,2 x 35mm
02821005 3,2 x 56mm



NOTE:



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