

**ZIMMER®
ZCA® ALL-POLY
ACETABULAR
CUP**

**Surgical
Technique**



zimmer
Confidence in your hands™

INTRODUCTION

ZCA All-Poly Acetabular Cups are designed for cemented fixation. All cups can be inserted with the same dedicated instrumentation. The cups have a minimum polyethylene thickness of 6mm and each cup has four 3mm cement spacers to help maintain a uniform cement mantle.¹

Preoperative planning is essential to a good outcome. There are three styles of ZCA All-Poly Cups. Initial choice of cup style can be made preoperatively, based upon examination of the patient, radiographs, and use of templates. Final assessment of cup size and style is made intraoperatively.

A Neutral Cup – Available in four ID sizes (22mm, 26mm, 28mm, 32mm).

B Inclined Face Cup – A 10° inclined face is designed to help prevent dislocation in the area in which the elevation is placed. Available in four ID sizes (22mm, 26mm, 28mm, 32mm).

C Snap-In Cup – Provides reduced equatorial geometry to help minimize the risk of dislocation. Available in a 32mm ID neutral face cup for greater stability and range of motion.



3 CUP POSITIONING AND ALIGNMENT

Select the appropriate ZCA Cup Positioner – Charnley Style for a lateral or anterolateral approach, or ZCA Cup Positioner for a posterior or posterolateral approach. If a 32mm ID cup will be used, the standard 32mm Cup Positioner must be used. The Charnley Style Cup Positioner is held with the handle cephalad. The ZCA Cup Positioner handle is held in a caudad direction. Both positioners have a base plate with prongs to which the acetabular cup is attached.

Insert the alignment rod into the hole marked right or left to match the leg that is being operated. The positioners orient the cup in 45° of abduction and 20° of anteversion when the alignment rod is held parallel to the long axis of the patient.

Note: If using a cup with an inclined face, appropriate adjustment must be made to ensure proper orientation with instrumentation.



1 ACETABULAR PREPARATION

Ensure that the rim of the acetabulum is fully exposed. Identify the margins of the acetabulum using blunt and sharp Hohmann-type retractors or similar instruments. Excise any peripheral osteophytes and membranes.

Prepare the acetabulum with progressively larger hemispherical reamers. Hold reamer steady and apply pressure in the same direction in which the cup will be implanted. The acetabulum should be reamed down to cancellous subchondral bone.



Combine drill bit – 6, 10, or 13mm – with the self-centering Acetabular Drill and create keyholes in the acetabulum that allow for additional cement purchase.



4 CUP INSERTION

Prior to inserting the implant, lavage and dry the acetabulum. Mix bone cement and pack it into the created keyholes first. Then pack cement into the acetabulum.

Mount the ZCA Cup on the selected cup positioner and place the cup into the acetabulum. If using a cup with an inclined face, be sure to orient it in the proper direction. Depress the handle to release the implant.



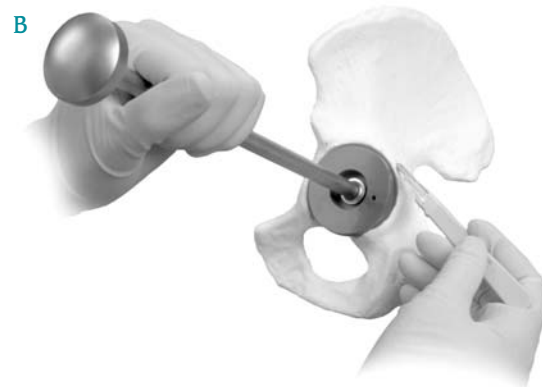
2 ACETABULAR SIZING

Select the ZCA Cup outside diameter that matches the size of the last acetabular reamer used. If the last reamer used was an even dimension, choose the cup size that is 1mm less than the last reamer used. For example, if a 54mm reamer was used, choose a 53mm OD cup.

Note: Cup diameter includes the cement spacers.

To check bone coverage, use the Cup Pusher Shaft with the desired size ZCA Cup Provisional attached (A).

Note: The provisional has a neutral face. If the Inclined Face Cup will be used, determine desired cup orientation. For reference, mark the acetabulum where additional coverage may be needed (B).

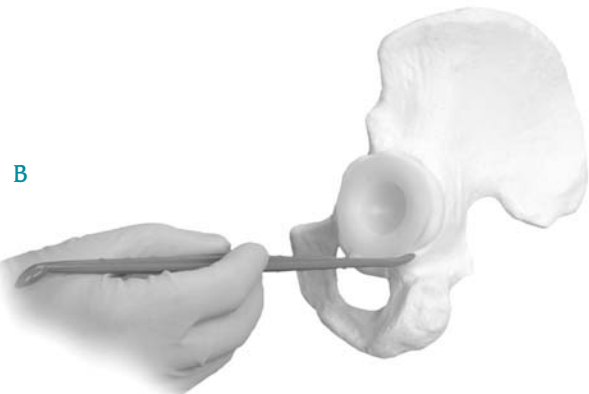


5 FINAL CUP POSITION

Maintain pressure against the ZCA Cup using the Pusher Head Shaft attached to the properly sized provisional head. Apply continuous pressure during bone cement polymerization (A).

Cement can then be trimmed to contour the acetabulum (B).

Note: The Snap-In Cup requires use of the 28mm provisional head. A 32mm provisional head would require a complete snap-in engagement that could accidentally move the implant in the cement.

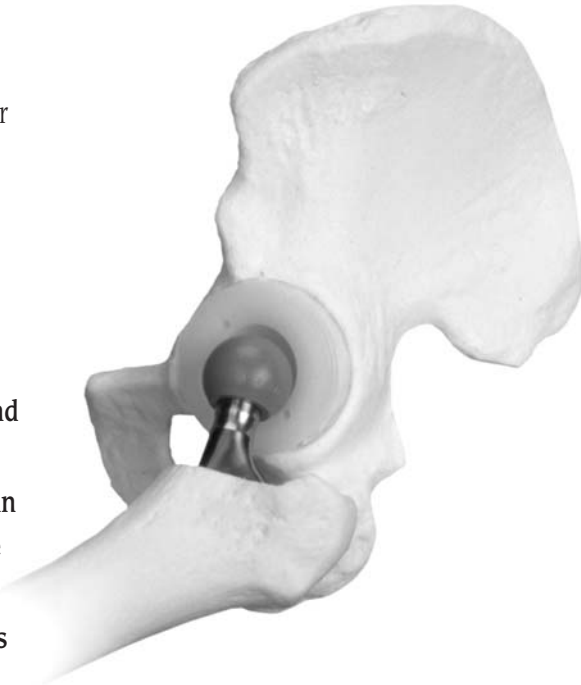


6 REDUCTION

Trim excess cement and remove debris from the interior of the cup before reducing the hip. Perform a trial reduction with an implanted stem and trial head after cement has cured and prior to final reduction.

Note: Care should be taken to avoid notching, scratching, or striking the prosthesis. A roughened or marred provisional could result in accelerated wear of the polyethylene liner or sudden failure of the prosthesis.

Warning: To reduce the Snap-In Cup, the acetabular cup and femoral component must both be implanted before the femoral head is snapped into the cup. To engage the head in the cup, some version of the femur with respect to the face of the cup may be required. Ease the femoral head into the cup until it snaps in place. Ensure that the two components are fully engaged and there is no component impingement. Check range of motion before closing. It should be noted that skirted heads are contraindicated for use with the Snap-In Cup.



ORDERING INFORMATION

Standard Polyethylene

Cat. No.	Size
22mm Neutral Spacer	
8005-540-22	43mm OD
Through ↓	Through ↓
8005-558-22	61mm OD
26mm Neutral Spacer	
8005-542-26	45mm OD
Through ↓	Through ↓
8005-558-26	61mm OD
28mm Neutral Spacer	
8005-544-28	47mm OD
Through ↓	Through ↓
8005-558-28	61mm OD
32mm Neutral Spacer	
8005-546-32	49mm OD
Through ↓	Through ↓
8005-558-32	61mm OD
22mm 10° Inclined Face Spacer	
8005-640-22	43mm OD
Through ↓	Through ↓
8005-658-22	61mm OD
26mm 10° Inclined Face Spacer	
8005-642-26	45mm OD
Through ↓	Through ↓
8005-658-26	61mm OD
28mm 10° Inclined Face Spacer	
8005-644-28	47mm OD
Through ↓	Through ↓
8005-658-28	61mm OD
32mm 10° Inclined Face Spacer	
8005-646-32	49mm OD
Through ↓	Through ↓
8005-658-32	61mm OD
32mm Snap-In Spacer	
8005-946-32	49mm OD
Through ↓	Through ↓
8005-958-32	61mm OD

Longevity® Highly Crosslinked Polyethylene

Cat. No.	Size
22mm Neutral Spacer	
8065-540-22	43mm OD
Through ↓	Through ↓
8065-558-22	61mm OD
26mm Neutral Spacer	
8065-542-26	45mm OD
Through ↓	Through ↓
8065-558-26	61mm OD
28mm Neutral Spacer	
8065-544-28	47mm OD
Through ↓	Through ↓
8065-558-28	61mm OD
32mm Neutral Spacer	
8065-546-32	49mm OD
Through ↓	Through ↓
8065-558-32	61mm OD
22mm 10° Inclined Face Spacer	
8065-640-22	43mm OD
Through ↓	Through ↓
8065-658-22	61mm OD
26mm 10° Inclined Face Spacer	
8065-642-26	45mm OD
Through ↓	Through ↓
8065-658-26	61mm OD
28mm 10° Inclined Face Spacer	
8065-644-28	47mm OD
Through ↓	Through ↓
8065-658-28	61mm OD
32mm 10° Inclined Face Spacer	
8065-646-32	49mm OD
Through ↓	Through ↓
8065-658-32	61mm OD
32mm Snap-In Spacer	
8065-946-32	49mm OD
Through ↓	Through ↓
8065-958-32	61mm OD

Cat. No.	Description
8005-400-01	ZCA Instrument Set (includes one each of all items listed below:)
8005-260-00	Cup Pusher Shaft
8005-260-22	Cup Pusher Head, 22mm
8005-260-26	Cup Pusher Head, 26mm
8005-260-28	Cup Pusher Head, 28mm
8005-260-32	Cup Pusher Head, 32mm
8000-214-00	Acetabular Drill, 6mm
8000-215-00	Acetabular Drill, 13mm
8000-216-00	Acetabular Drill, 10mm
5785-079-00	Alignment Guide
8005-300-00	ZCA Cup Provisional Set (includes one each of all items listed below:)
8005-300-43	ZCA Cup Provisional, 43mm
Through ↓	Through ↓
8005-300-61	ZCA Cup Provisional, 61mm
8005-96-00	ZCA Tray Assembly*
8005-95-00	ZCA Sterilization Case Assembly*
8005-210-00	ZCA Cup Positioner, Charnley Style,** fits 22, 26, and 28mm cups OR
8005-250-00	ZCA Cup Positioner,** fits 22, 26, and 28mm cups
8005-230-00	ZCA Cup Positioner,** fits 32mm cup only

* Holds instruments and provisionals.
** One positioner will fit into Tray Assembly.

Note: To receive the entire system, order all part numbers in bold.



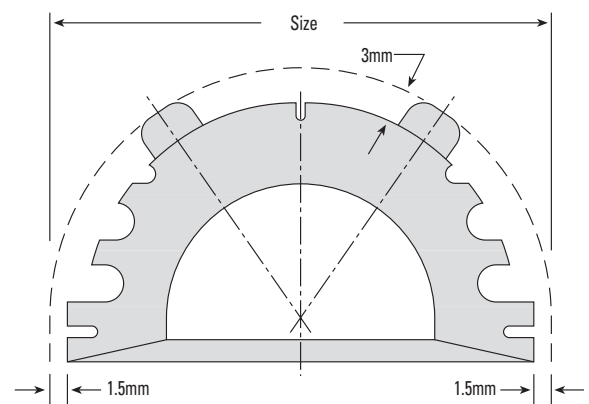
ZCA ALL-POLY ACETABULAR CUP SIZING

The ZCA Cup diameter is measured over the cement spacers. Therefore, the **last reamer used should match the cup diameter**. If odd-size reamers are unavailable, choose a cup diameter size which is 1mm less than the last reamer used. The cement mantle thickness is the same as the cement spacer height, which is 3mm.

Size = Diameter of reamed acetabulum (nominal diameter of debris-retaining reamer). This is also the size labeling on the package.

Note: Cup sizes are available in increments of 2mm, as reflected in catalog numbers.

1 Lichtinger TK, Muller RT. Improvement of the cement mantle of the acetabular component with bone cement spacers – a retrospective analysis of 200 cemented cups. *Arch Orthop Trauma Surg.* 1998;118:75-77.



Surgical technique developed in conjunction with Godfrey J. Charnley, FRCS Ed, FRCS Ortho.

Please refer to the package insert for complete product information including contraindications, warnings, precautions, and adverse effects.

Contact your Zimmer Representative or visit us at www.zimmer.com



zimmer
Confidence in your hands™