Surgical Technique

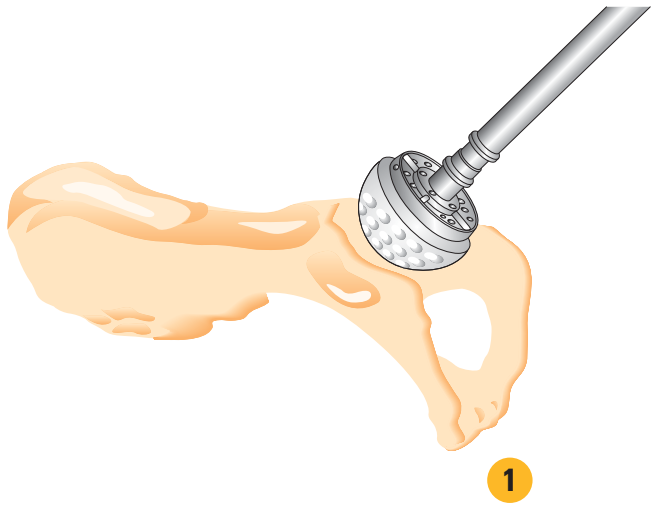
Dual-Articulation Acetabular Cup System

TORNIER
IMPLANTS CHIRURGICAUX

1 Acetabular reaming

Begin reaming with a reamer that is at least 2 sizes smaller than the templated size. 1 2

The last reamer used determines the size of the acetabular shell. The macro-textured surface at the equator of the shell provides 1 mm circumferential press-fit.



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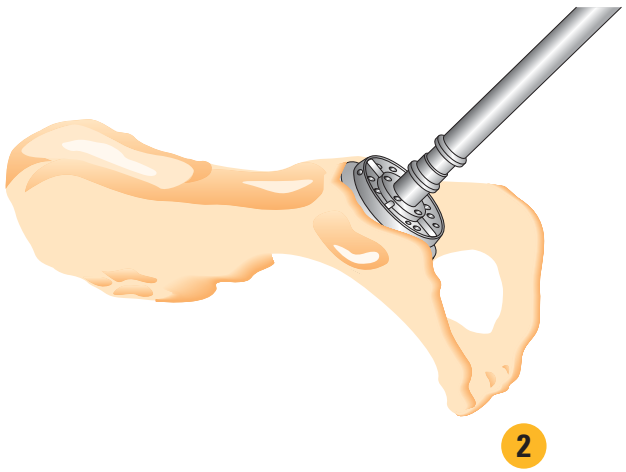


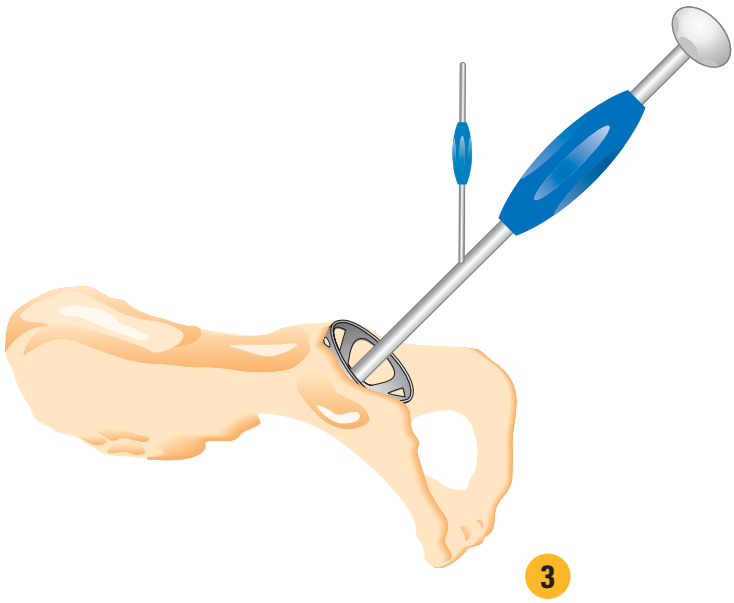
2

2 Trial evaluation

Use the trial shell that corresponds to the size of the last reamer used. Thread the trial onto the shell positioner/impactor with the abduction alignment guide (45°) attached to it.

Insert the trial into the prepared acetabulum. The trial should be properly oriented both in the coronal and sagittal planes. 3

- Visualize through the slots in the trial to determine the trial/bone contact, and check for anterior and posterior fit.
- Adequate press-fit should be achieved at the periphery of the trial. Assess stability of the trial by moving the handle of the positioner/impactor ; the trial must be perfectly stable.



3

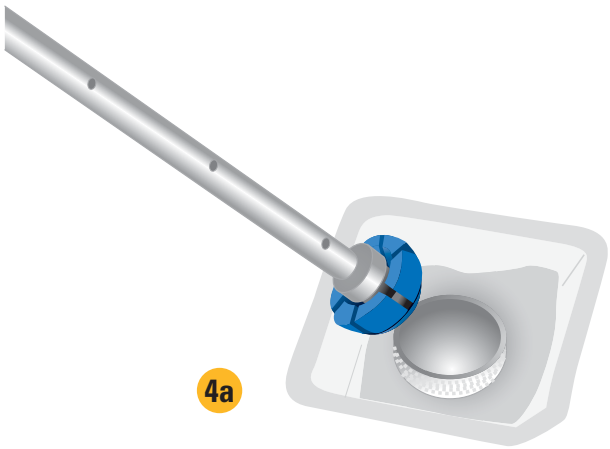
3 Acetabular shell insertion

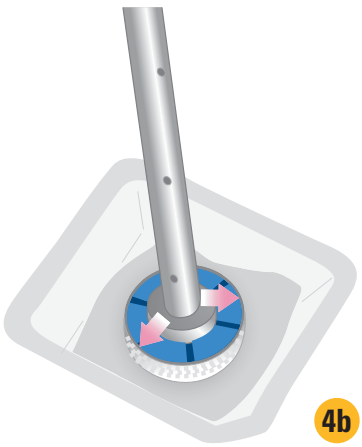
Thread the appropriate size expandable positioner tip onto the positioner/impactor.

Insert the positioner tip into the selected acetabular shell (while still in its package). Be careful to align the shaft of the positioner/impactor with the axis of the shell (the edge of the expandable tip should be flush with the rim of the shell). 4a 4b

Rotating clockwise (see arrow) the blue handle of the positioner/impactor results in expansion of all the sections of the positioner tip. With expansion, the positioner tip is pressed against the walls of the shell. **Screw fully home to firmly lock the positioner tip in the shell** 4c

The abduction alignment guide (45°) may be attached to the positioner/impactor, if desired.





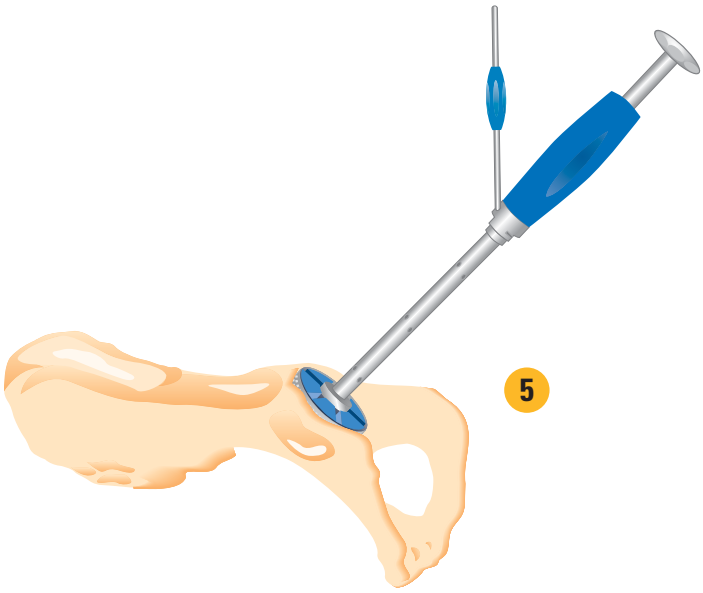
Insert the acetabular shell into the prepared acetabulum and firmly impact the positioner/impactor with a mallet. Any necessary adjustments should be made before the shell is fully seated. 5

Rotate the blue handle counterclockwise to smoothly release the positioner tip.

Then, remove the positioner tip by slightly tilting the positioner/impactor rather than pulling straight out on handle.

A rim impactor has been designed to adjust the face angle of the shell, if necessary.

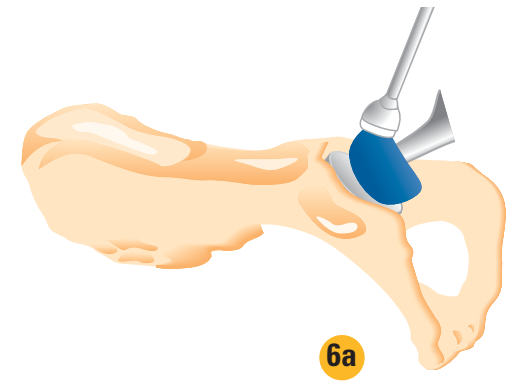
Impact again the positioner/impactor fitted with the expandable tip to complete seating of the shell.

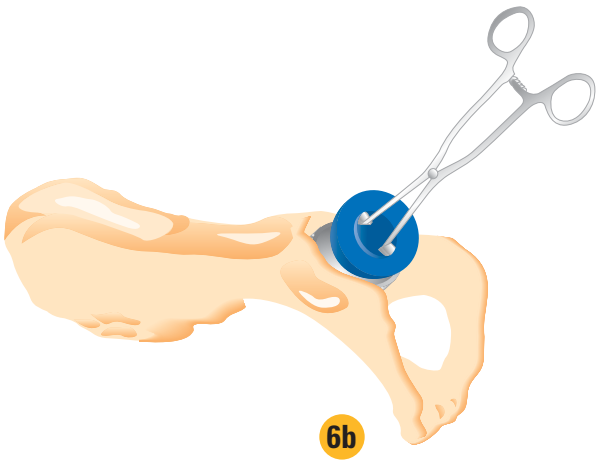


4 Trial reduction

Provisional liners are available to help determine the appropriate femoral neck length.

- Place the provisional liner on the trial head and insert the assembly into the acetabular shell. 6a Alternatively, a trial reduction may be performed earlier on with the trial shell in place.
- Trial reduction allows determination of the optimal neck length.
- Dislocation of the trial assembly (trial stem/trial head/provisional liner) is easy due to the unique shape of the provisional liner.
- Should the provisional liner be jammed within the metal shell, it can be easily removed with the liner removal forceps. 6b





5 Head/liner assembly

The prosthetic head and acetabular liner are assembled using the special assembly tool.

Depending on the type of the femoral stem, the PE liner can be assembled :

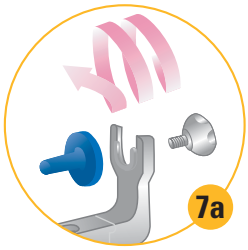
- in situ if a one-piece femoral stem is used
- on the table if a modular head is used

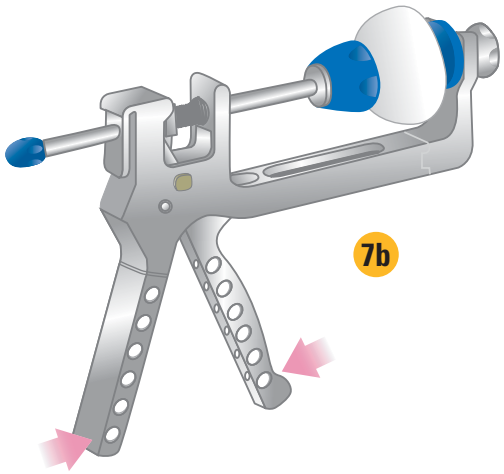
In the latter case, secure the head support in the fork of the assembly tool, using the knurled knob. 7a Three head supports are available, with Morse tapers matching the femoral neck tapers (8/10, 9/11, 12/14). **Check for perfect congruity between the male and female tapers.**

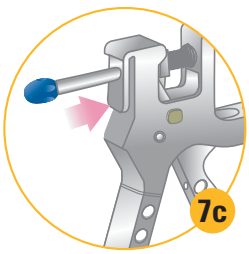
Squeeze the handles of the tool together until a typical air blast sound is heard as the head passes the container ring. **Maximal impaction force can be delivered by placing hands at the inferior end of the handles.** 7b

Press the posterior tongue on the assembly tool to free the liner/head assembly. 7c Maintaining pressure on the handles will make it easier.

Check for free motion of the liner over the ball head.







6 Reduction of the prosthesis

After the liner/head assembly has been placed on the femoral neck taper, the prosthesis is reduced using the liner pusher.

Instruments

Instrument Tray YKAH92

Cat. No.	Description	
MDM001	Impactor	
MDM002	Positioner/Impactor	
MDM003	Abduction alignment guide (X2)	
MDM004	Rim impactor	
MDM005	Liner pusher	
MDM006	Impactor tip	
MDM008	Liner removal forceps	
MCT802	Reamer handle	
MCT810	2.5 mm Hex wrench for reamer handle	
MDM014	Assembly tool	
MDM010	Head support, 12/14 taper	
MDM011	Head support, 9/11 taper	
MDM013	Head support, 8/10 taper	
MDM015	Knurled knob	
MCT800	5 mm Hex wrench for assembly tool	
MDM016	Liner removal tool	

CONTAINER

NBR005	Case (H 135 mm)
YRAH92	Tray

Instrument YKAH93

Cat. No.	Description	
MDM042 à 062	Expandable positioner tips, 42 to 62 mm	
MDM142 à 162	Trial shells, 42 to 62 mm	
MDM242 à 262	Provisional liners for 22.22 mm heads, 42 to 62 mm	
MDM348 à 362	Provisional liners for 28 mm heads, 48 to 62 mm	
MCT840 à 862	Acetabular reamers, 40 to 62 mm	

Container

NBR005	Case (H 135 mm)
YRAH93	Tray

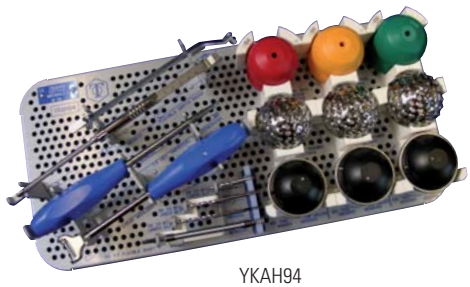
DUAL-ARTICULATION ACETABULAR CUP SYSTEM

	Metal back	PE Liner 22,2 mm head	PE Liner 28 mm head
Ø42 mm	HDM042	HDM142	-
Ø44 mm	HDM044	HDM144	-
Ø46 mm	HDM046	HDM146	-
Ø48 mm	HDM048	HDM148	HDM248
Ø50 mm	HDM050	HDM150	HDM250
Ø52 mm	HDM052	HDM152	HDM252
Ø54 mm	HDM054	HDM154	HDM254
Ø56 mm	HDM056	HDM156	HDM256
Ø58 mm	HDM058	HDM158	HDM258
Ø60 mm	HDM060	HDM160	HDM260
Ø62 mm	HDM062	HDM162	HDM262

Instruments

YKAH92

YKAH93



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