Preparation and reaming of the acetabular bed for cup placement must occur in the location of the original true acetabulum not a dorsally migrated false acetabulum. Name the anatomic structure that should be identified and referenced from for initial acetabular reaming. Select one:

- a. Acetabular fovea
- b. Cranioventral acetabular boney rim
- c. Ventral joint capsule
- d. Ventral <u>transverse acetabular ligament</u> Feedback

The ventral <u>transverse acetabular ligament</u> is the anatomic structure that should be identified to identify the ventral aspect of the original true acetabulum. Reaming should start just dorsal to this ligament.

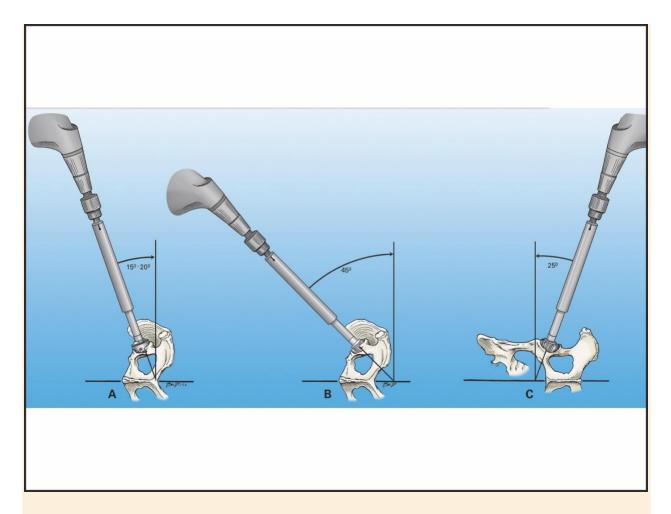
The correct answer is: Ventral transverse acetabular ligament

Question **2** Incorrect Marked out of 1 Flag question **Question text** 

Initial acetabular reaming is performed at what angles? Select one:

- a. 45 degrees ventral to perpendicular with 20 degrees of retroversion
- b. 25 degrees ventral to perpendicular with 25 degrees of retroversion
- c. 15-20 degrees ventral to perpendicular with 25 degrees of retroversion
- d. 10 degrees ventral to perpendicular with 10 degrees of retroversion Feedback

Initial acetabular reaming is performed at 15-20 degrees ventral to perpendicular to minimize removal of the dorsal rim and to prevent dorsal migration of the reamer during the initial reaming step.



Once the initial bone bed has been established, the reaming angle is dropped to 45 degrees for final acetabular preparation. All reaming is performed at 25 degrees of retroversion.

The correct answer is: 15-20 degrees ventral to perpendicular with 25 degrees of retroversion

Question **3** Correct Marked out of 1 Flag question **Question text** 

Precise, deliberate and stable reaming is crucial for creating the hemispherical bone bed needed to achieve a <u>press-fit</u> of a BFX cup.

Select one: True False

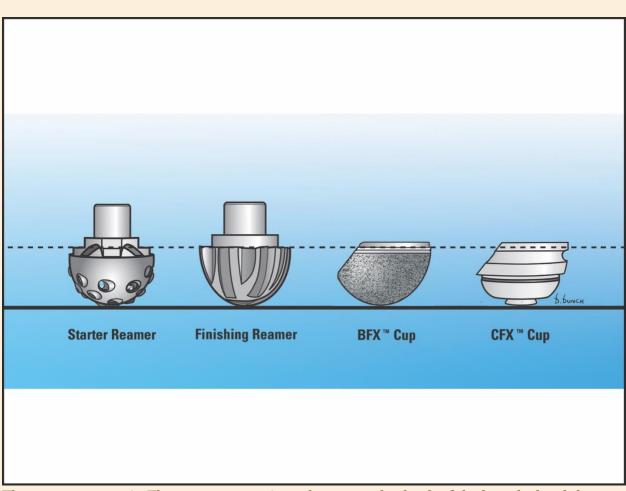
Feedback

The tolerance for a <u>press-fit</u> cup is 1mm between the finishing reamer size and the implant size. The surgeon must have control of the reamer and be deliberate with its orientation to create the appropriate <u>press-fit</u> bone bed. The correct answer is 'True'. Question **4** Correct Marked out of 1 Flag question **Question text** 

Why is acetabular reaming a 2 step process, using a starter and then a finishing reamer? Select one:

- a. The starter reamer is used to create the location of the prepared bone bed and the finishing reamer removes the cartilage
- b. The starter reamer is used to create the width of the prepared bone bed and the finishing reamer determines the depth of the prepared bone bed
- c. The starter reamer is used to create the depth of the bone bed and the finishing reamer precisely expands the diameter to create the final tolerance required for press fit.
- d. The starter reamer is used to remove osteophytes and bone from the ventral acetabulum while the finishing reamer creates the final depth and finish of the prepared bone bed
  Feedback

The 2 step process relates to the design and roles of the 2 types of reamers. The smaller starter (cheese-grater style) reamer is very sharp and removes cartilage and subchondral bone well and establishes the depth, but is not accurate enough for a precise <u>press-fit</u>. The more rigid and precise finishing reamer is used to smooth and finish the bone bed to the 1mm tolerance for the <u>press-fit</u>. This finishing reamer cuts the sides of the prepared bone bed, but will not cut beyond the depth created by the starter reamer.



The correct answer is: The starter reamer is used to create the depth of the bone bed and the finishing reamer precisely expands the diameter to create the final tolerance required for press fit.

Question **5** Correct Marked out of 1 Flag question Question text

Starter reamers are numerically identified with an odd number, while finishing reamers are numerically identified with an even number Select one: True False Feedback

The starter, cheese grater style, reamers are odd numbers 19-33 mm and the finishing reamers are even numbers, 20-34 mm. The correct answer is 'True'. Question **6** Correct Marked out of 1 Flag question Question text

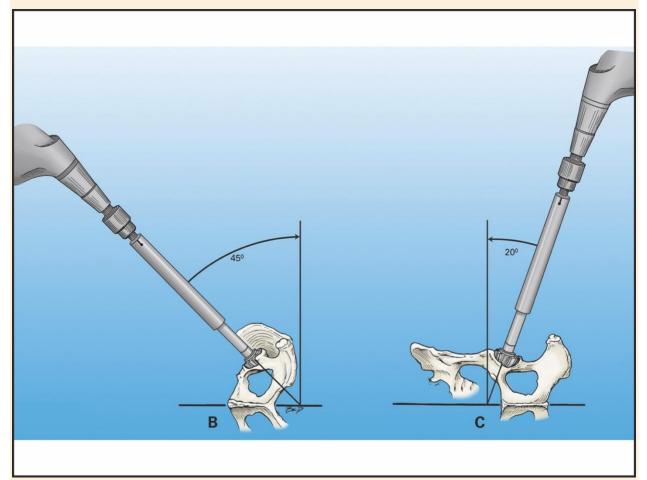
The reamer angle during finishing reaming is crucial for accurately creating an acetabular bone bed that will result in the correct BFX cup orientation and <u>press-fit</u>. What is the correct reamer angle?

Select one:

- a. 45 degrees ventral to perpendicular with 15-20 degrees of retroversion
- b. 45 degrees ventral to perpendicular with 10 degrees of retroversion
- c. 25 degrees ventral to perpendicular with 20 degrees of retroversion
- d. 25 degrees ventral to perpendicular with 10 degrees of retroversion

Feedback

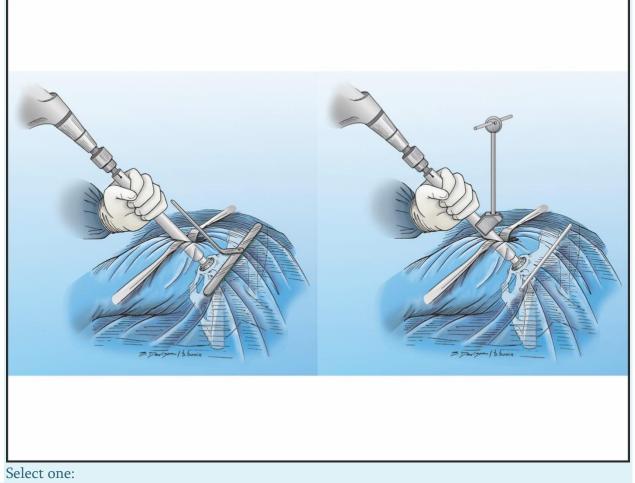
The finishing reamer creates the **press-fit** and sets the final orientation of the cup.



The correct answer is: 45 degrees ventral to perpendicular with 15-20 degrees of retroversion Question **7** 

Correct Marked out of 1 Flag question Question text

These alignment guides are used for what purpose?



- a. Assist the surgeon in determining their correct body position for acetabular reaming
- b. Assist the surgeon in determining the appropriate depth and retroversion angle for finishing reaming
- c. Assist the surgeon in determining the ilioischial axis of the pelvis
- d. Assist the surgeon in determining and maintaining the correct reaming angles for acetabular bed preparation.
  Feedback

The alignment guides are used to provide visual accuracy for proper reamer alignment during acetabular preparation. The positioning board alignment guide rests on the dorsally located iliac and ischial posts of the positioning board. The acetabular alignment guide that is attached to the reamer sleeve is held in place by the surgeon during reaming.

The correct answer is: Assist the surgeon in determining and maintaining the correct reaming angles for acetabular bed preparation.

Question **8** Correct Marked out of 1 Flag question Question text

It is essential to preserve the medial wall of the acetabulum for placement of both BFX and CFX acetabular components.

Select one: True False Feedback

Preservation of the medial acetabular wall is necessary for placement of a CFX cup to allow pressurization and retention of the bone cement within the acetabular bed. Cautious removal of a portion of the medial acetabular wall may be performed when placing a BFX cup to allow medialization of the cup when required.

The correct answer is 'False'.

Question <b>9</b>
Correct
Marked out of 1
Flag question
Question text

Following preparation of the acetabulum for a CFX cup, the bone bed must be flushed of any bone debris or hemorrhage and be as dry as possible prior to implant placement.

Select one: True False Feedback

When placing a CFX cup, it is important to ensure the bone bed is clean and dry to improve the bond at the cement-bone interface. Active bleeding and bone debris will decrease the strength of the cement and its bond to the bone. Conversely, if placing a BFX cup, the blood and small fragments of cancellous bone are left in situ to help promote the early integration of tissue into the ingrowth surface of the implant.

The correct answer is 'True'.

When significant remodeling of the acetabulum has occurred, it is important that the bone preparation be expanded to the margins of the acetabulum and that the cup not be undersized. Why is undersizing the cup in this situation not recommended? Select one:

- a. Undersizing with a smaller implant will create a sizing mismatch between the femoral stem and the acetabular component
- b. Undersizing in a remodeled acetabulum is preferred as the implant will be better supported by the adjacent bone
- c. The risk of undersizing in an expanded and remodeled acetabulum is that fulcrum points can be created around the implant periphery resulting in an increased risk of dislocation postoperatively.
- d. The risk of undersizing in a remodeled acetabulum is that the bone quality will be poor and longterm cup stability may be affected
   Feedback

A remodeled acetabulum has often expanded beyond its initial size and a new acetabular rim is created. Placing an implant that is smaller than this remodeled width will result in leaving a rim of bone outside the edge of the implant and possible medialization of the cup. This creates potential points of contact between the acetabular bone and the femoral neck or proximal femur which may result in dislocation of the prosthetic hip joint.

The correct answer is: The risk of undersizing in an expanded and remodeled acetabulum is that fulcrum points can be created around the implant periphery resulting in an increased risk of dislocation postoperatively.