Entry into the femoral canal for reaming and <u>broach</u>ing is performed through the cancellous bone exposed at the level of femoral neck resection. Select one: True False Feedback

The point of entry into the femoral canal is medial to the greater trochanter through the trochanteric fossa.



## The correct answer is 'False'.

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

What surgical device is used to create the initial opening into the femoral canal and why? Select one:

a. 3.5 mm drill bit because power entry decreases the chance of fissuring the femur

- b. #5 drill bit found in the Basic Instrument set because it creates the size hole necessary to allow entry of the first <u>broach</u>
- c. 3.2 mm (1/8") intramedullary pin on a hand chuck because the sharp point of pin will pass through soft tissues and engage bone along the slope of the fossa
- d. #5 tapered reamer because the low torque and slow removal of bone is more accurate in achieving central canal alignment
  Feedback

A 3.2 mm (1/8") intramedullary pin is used to create the initial hole in the trochanteric fossa. The sharp end of the pin can be easily directed through soft tissues and soft osteophytes that might be covering the fossa and will engage the sloping bone of the fossa without sliding. This pin is inserted just enough to penetrate the fossa and create a hole to receive the 5 mm drill bit.



The correct answer is: 3.2 mm (1/8") intramedullary pin on a hand chuck because the sharp point of pin will pass through soft tissues and engage bone along the slope of the fossa

Question **3** Correct Marked out of 1 Flag question **Question text**  All of the instruments used in femoral canal preparation are aligned and aimed down the femoral canal by referencing off of the patella. Select one: True False Feedback

The patella offers a good visual landmark for aiming and aligning the femoral canal instruments, thereby minimizing the risk of damage or perforation of the femoral cortical wall. A higher degree of distal femoral curvature (procurvatum) will alter the distal aiming point to a position more proximal to the patella (B). Less distal femoral curvature results in a distal aiming point more at the level of the patella (A).



The correct answer is 'True'. Question **4** Correct Marked out of 1 Flag question **Question text** 

The hard bone of the caudal femoral neck should be preserved for enhanced implant stability during the reaming and <u>broach</u>ing process.

Select one: True False Feedback

The hard cortical bone of the femoral neck offers considerable resistance to <u>broach</u> orientation and expansion of the bone envelope. It is best to selectively remove this bone either with a rongeur or with a power reamer.

The correct answer is 'False'.

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

The orientation and alignment of the femoral <u>broach</u>es during canal preparation determines the final orientation and alignment of a BFX femoral stem. Select one:

- a. True
- b. False

Feedback

During canal preparation for a BFX stem, the <u>broach</u> precisely creates the pathway that the femoral stem will follow when it is inserted into the bone. The stem will not fit properly within the bone in any other orientation. It is critical that <u>broach</u>ing occurs with proper orientation and alignment in both planes along the central axis of the femur while matching the patient's own <u>femoral anteversion</u> angle.

The correct answer is: True

Question **6** Correct Marked out of 1 Flag question **Question text**  When femoral <u>broach</u> misalignment occurs during the process of canal preparation, the best approach is to retract the <u>broach</u> from the canal using the slotted slap hammer until the <u>broach</u> can be correctly aligned then continue to seat the <u>broach</u>. Select one: True False

Feedback

Maintaining correct femoral <u>broach</u> alignment is essential during the <u>broach</u>ing process. Misalignment concerns should be recognized and addressed as early as possible during the <u>broach</u>ing process so as not violate the <u>press-fit</u>envelope within the bone. Using the slotted slap hammer, remove the <u>broach</u>to a point where it can be redirected with the proper alignment and orientation and then complete the <u>broach</u>ing process securely holding the <u>broach</u> in correct alignment. Never force or twist the <u>broach</u> into a new orientation while it is inserted in the femoral canal.

The correct answer is 'True'.

Question **7** Correct Marked out of 1 Flag question **Question text** 

The final femoral <u>broach</u> serves as the trial implant when assessing the appropriate size and potential <u>press-fit</u> of the femoral stem to be implanted. Select one: True False

Feedback

It is the perception of significant resistance to impaction during the last 5 mm of insertion of the femoral <u>broach</u> that indicates to the surgeon that the same size femoral implant will achieve a stable <u>press-fit</u>. A lack of resistance to <u>broach</u>ing may indicate a relative undersizing of the implant and the surgeon must then decide if there is room within the bone to increase to the next size of <u>broach</u> or alternatively, that there is insufficient cancellous bone quality to support a <u>press-fit</u> femoral stem.

The correct answer is 'True'.

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

During femoral canal preparation, what contributes most commonly to the development of a femoral fissure?

Select one:

- a. Femoral fissures will occur with increased frequency when the <u>broach</u>es become dull
- b. Femoral fissures are more likely to occur in young dogs with softer bone
- c. Femoral fissures occur most commonly as a result of surgical technique related errors
- d. Femoral fissures occur more commonly when a high femoral neck resection is performed Feedback

Femoral fissures most commonly develop as a result of technical errors during the femoral <u>broach</u>ing procedure. <u>Broach</u> misalignment, excessive impaction force, excessive <u>broach</u> or implant size and inadequate femoral elevation are examples of technical errors that will increase the incidence of intraoperative femoral fissure.



The correct answer is: Femoral fissures occur most commonly as a result of surgical technique related errors

Question **9** Correct Marked out of 1 Flag question Question text

Where is the most common location for a femoral fissure to develop either during femoral <u>broach</u>ing or stem insertion? Select one:

- a. Distal femoral diaphysis
- b. Proximal femoral diaphysis
- c. Caudal aspect of the femur at the femoral neck resection
- d. Cranial medial aspect of the femur at the femoral neck resection

Feedback

The most common location for a femoral fissure to develop during <u>broach</u>ing or stem insertion is along the cranial-medial region of the femur. This may be the result of removing excess bone in this location and or misalignment of the <u>broach</u> or stem leading to increased stress on the bone in this region. Maintaining alignment with the central axis of the femur in both planes will reduce the risk of femoral fissures.

The correct answer is: Cranial medial aspect of the femur at the femoral neck resection

Question **10** Correct Marked out of 1 Flag question **Question text** 

Once a femoral fissure develops, a BFX stem can no longer be placed into the femur.

Select one: True False Feedback

Proceeding with <u>broach</u>ing and BFX stem insertion, once a femoral fissure has developed, may still be possible if the fissure can be neutralized with multiple cerclage wires. Careful assessment of why fissuring occurred is an important part of the surgical decision process regarding implant selection once a fissure has occurred.

The correct answer is 'False'.