

Getting The Femur Right

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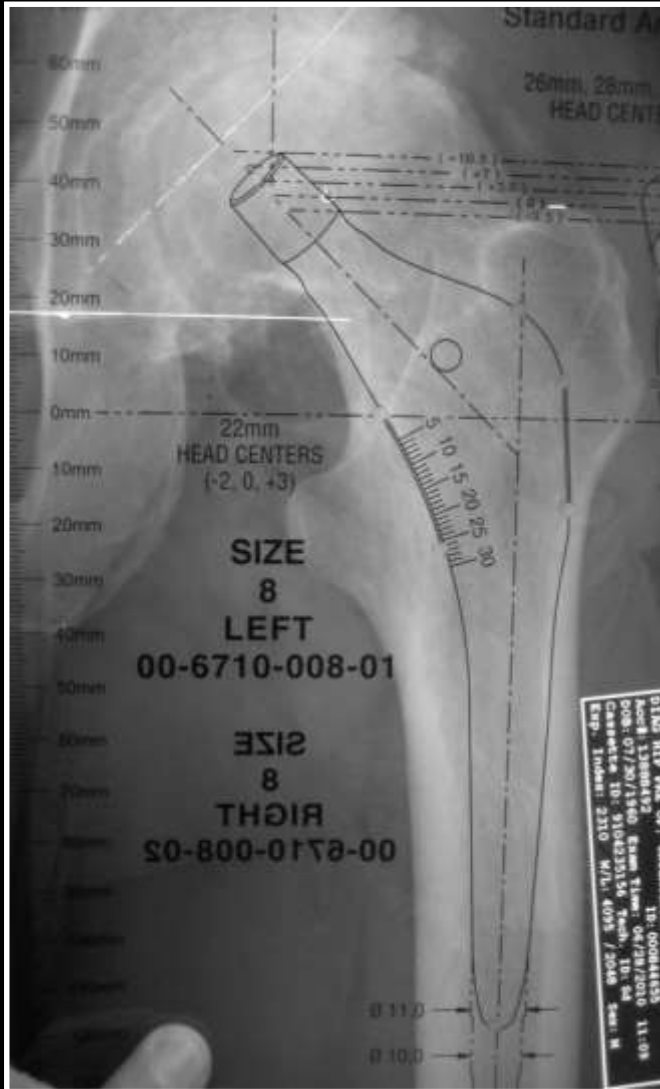
The Key to a Successful THA

1. Appropriate positioning of components
2. Initial stable fixation of components
3. A durable bearing surface
4. A surgical approach that facilitates above mentioned

My focus

- Preoperative planning & templating
- Exposure
- Neck resection and broaching
- Determination of anteversion
- Pulse lavage
- Cement pressurization
- Proper stuffing of canal in case of uncemented implant
- Difficult scenario (dysplastic or dysmorphic)

Preoperative planning & templating



- Restore limb length
- Restore offset
- Accurately implant components
- Ensures proper implant selection

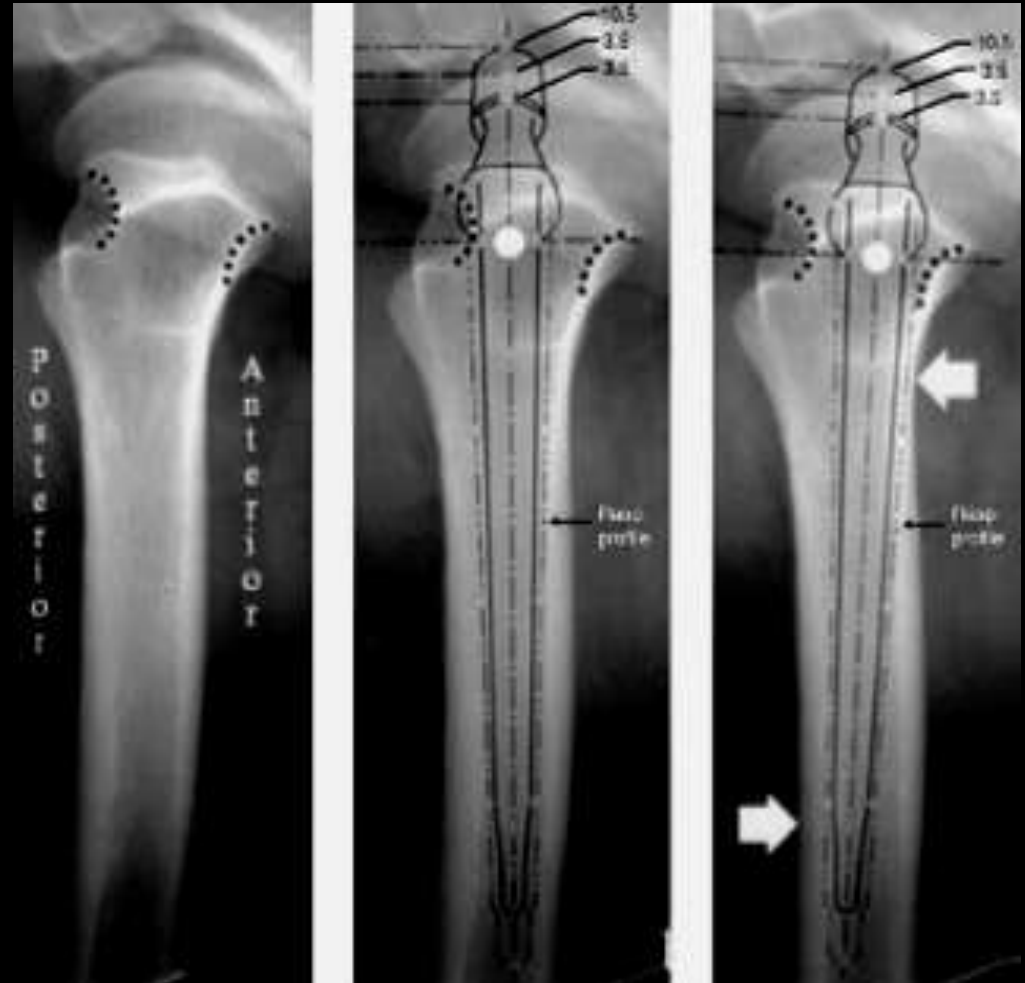
Preoperative planning & templating



Preop planning on a malrotated x-ray will lead to an inaccurate preoperative plan

Preoperative planning & templating

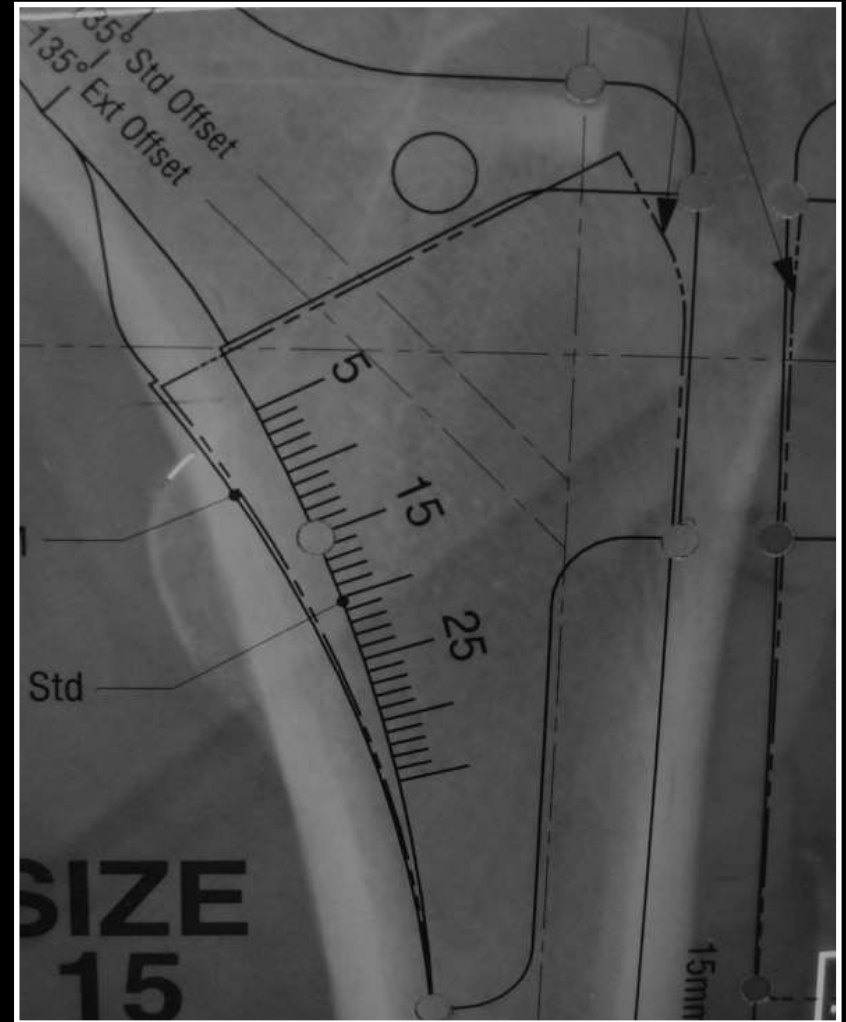
- Lateral
 - Sizing
 - Planning entrance into femur during femoral preparation
 - Anterior entrance may result in eccentric reaming, predisposing to fracture or deficient cement mantle



Preoperative planning & templating

Cementless stem

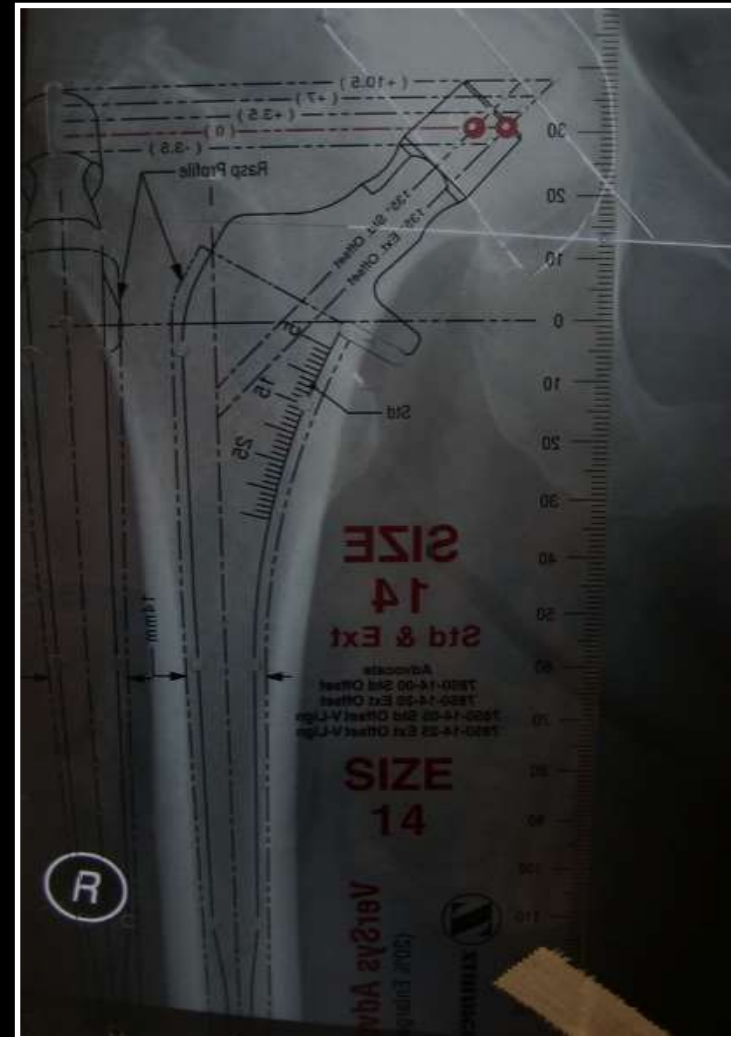
- Adjust template sizes until optimal contact between the lateral and medial endosteal cortex of the proximal femur should be achieved



Preoperative planning & templating

Cemented stem

- Adjust template sizes to allow for an adequate cement mantle of 2-3mm



Preoperative planning & templating

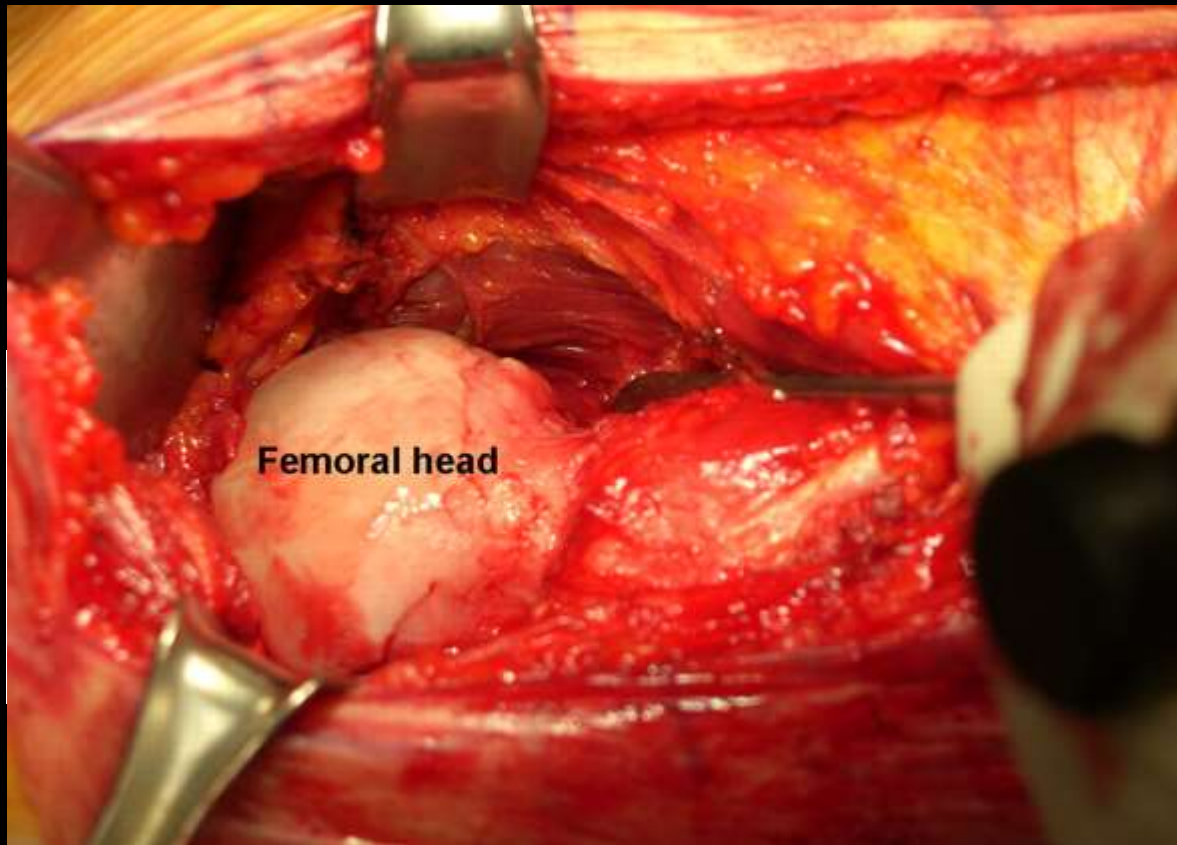
- 100 consecutive patients undergoing primary THR by 1 surgeon
- 90% agreement cup size
- 92% agreement in cemented stem size
- Mean post-op LLD
 - 3 +/- 1mm clinically
 - 2 +/- 1 mm radiographically
- 80% difficulties intra-op were anticipated

Egglı S, Pisan M, Muller ME: The value of preoperative planning for total hip arthroplasty. J Bone Joint Surg Br 1998;80:328-390

Exposure

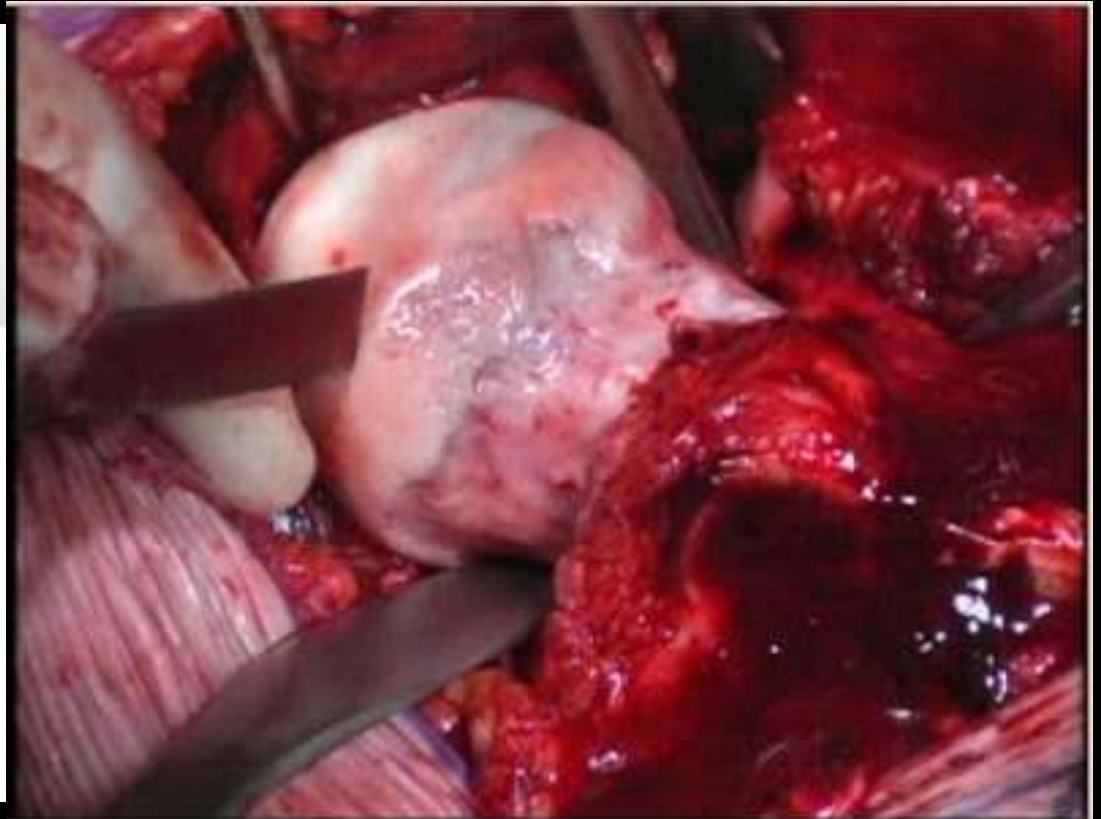
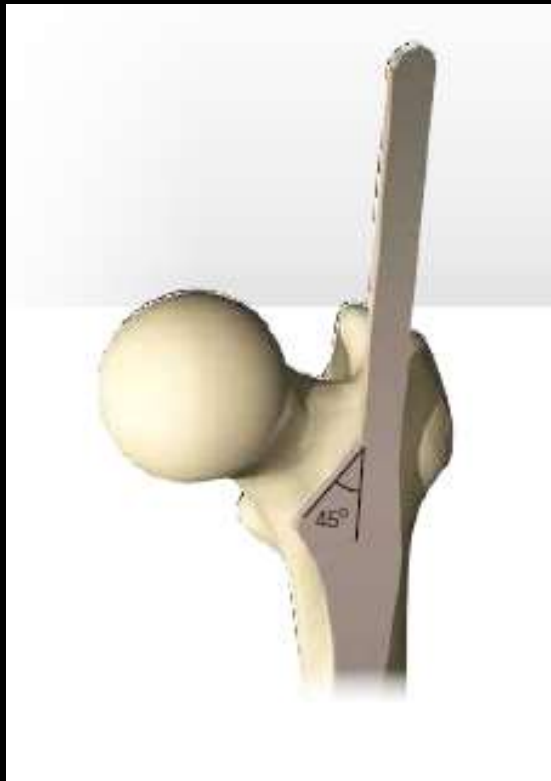
- Absolutely surgeons choice
- Should choose the most familiar one
- Results matter more than length of incision

Exposure

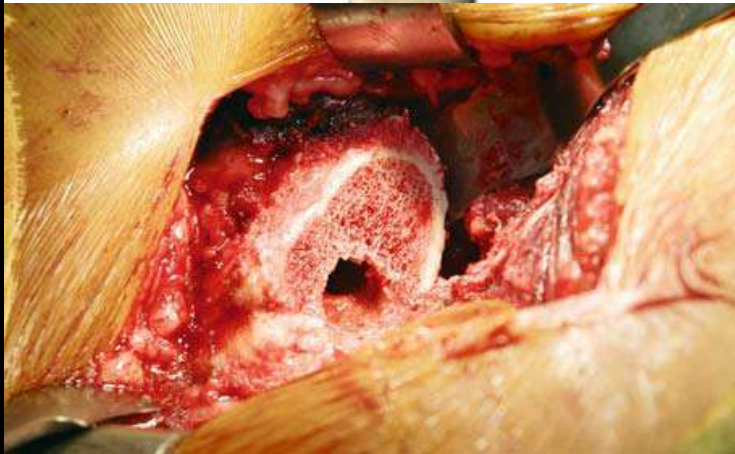
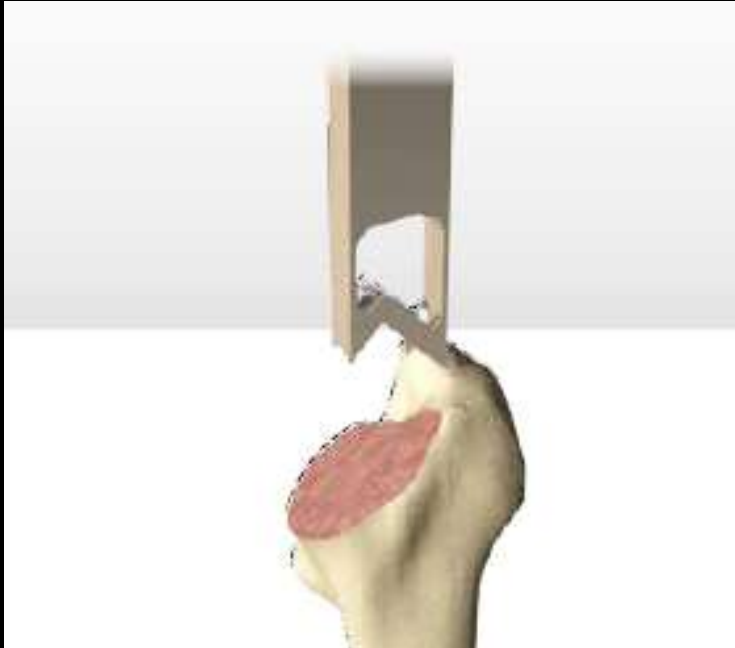


Neck resection and broaching

- Use neck resection guide
- Mark the cut with cautery or osteotome

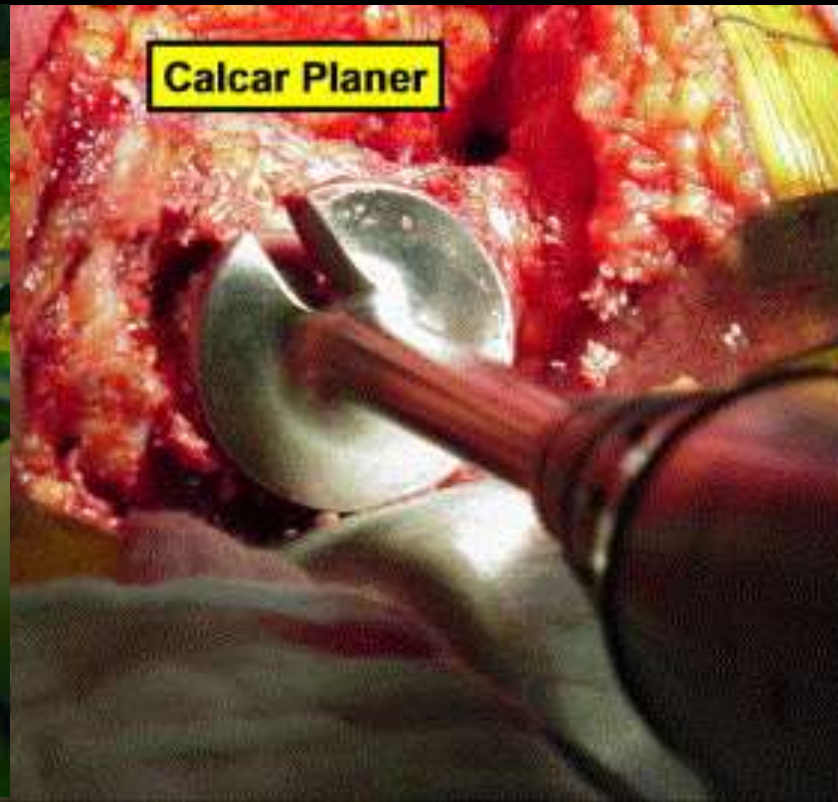
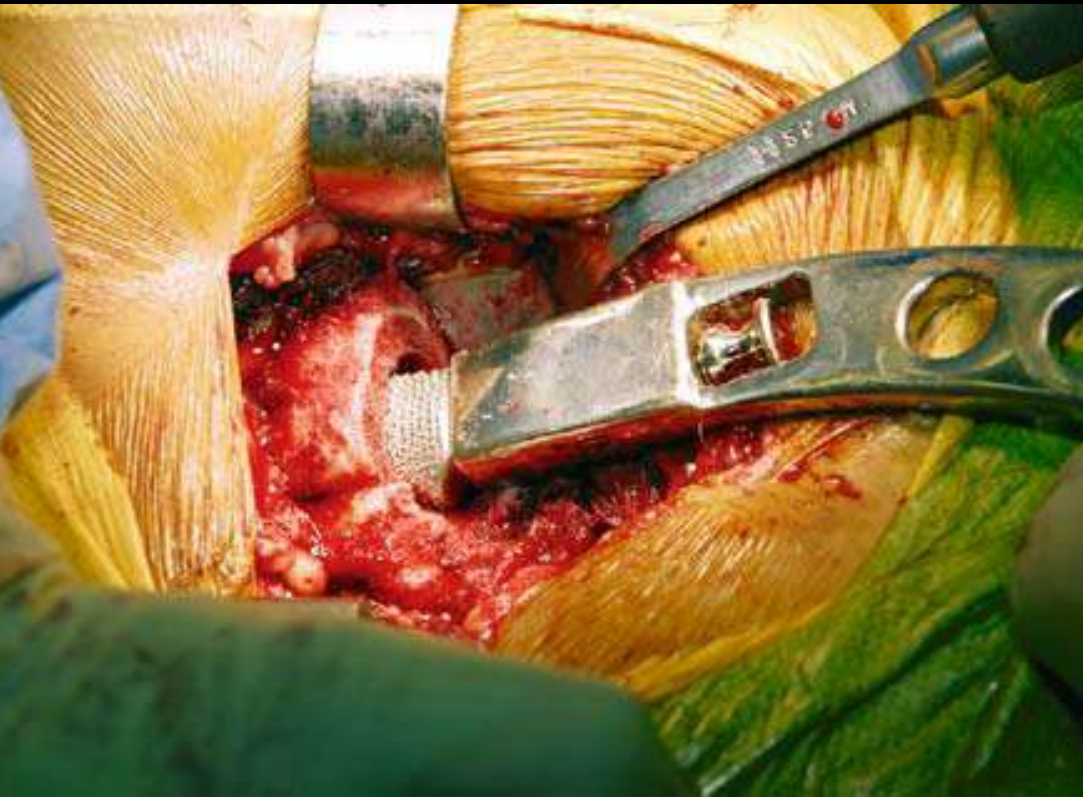


Neck resection and broaching



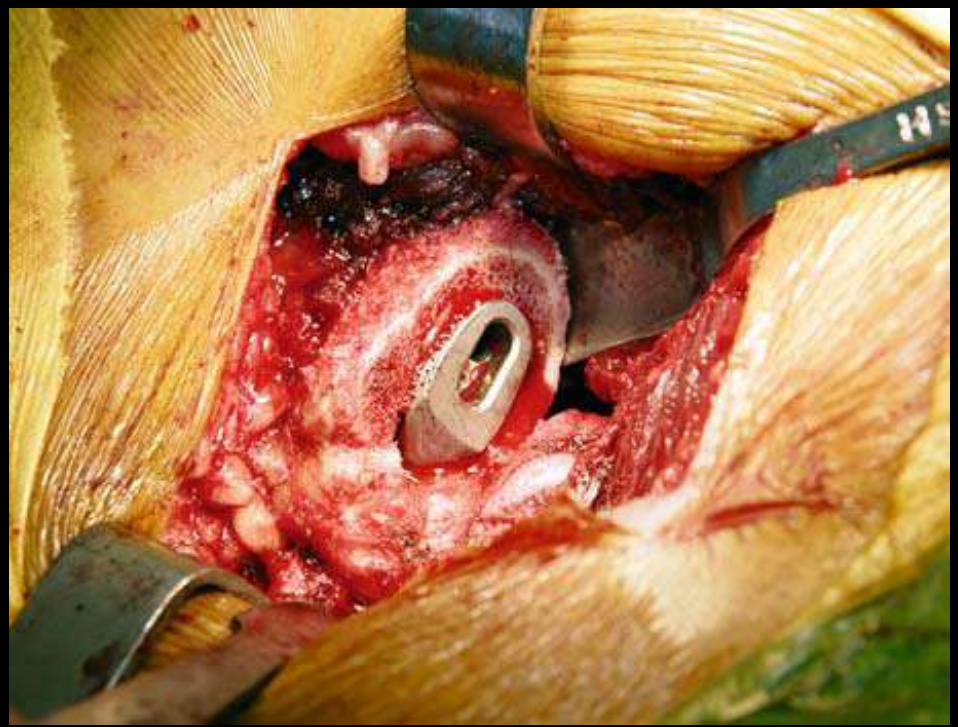
- Use box osteotome
- Remove some medial part of GT
- Insert at anterior edge of pyriform fossa, posterior to midline of neck

Neck resection and broaching



Determination of anteversion

- Rely on fixed bony landmarks(Anteversion sign)
- Patient position may vary during surgery and misleads you

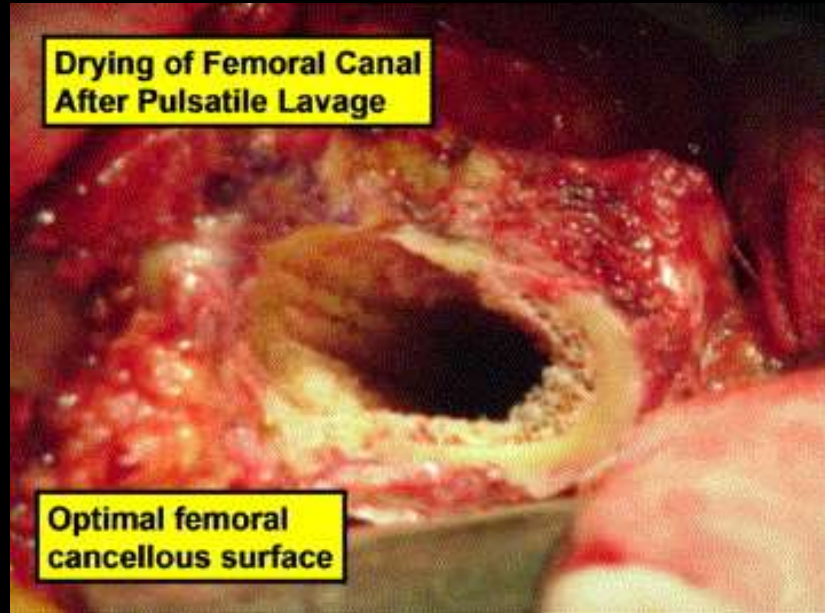


Pulse lavage



**Drying of Femoral Canal
After Pulsatile Lavage**

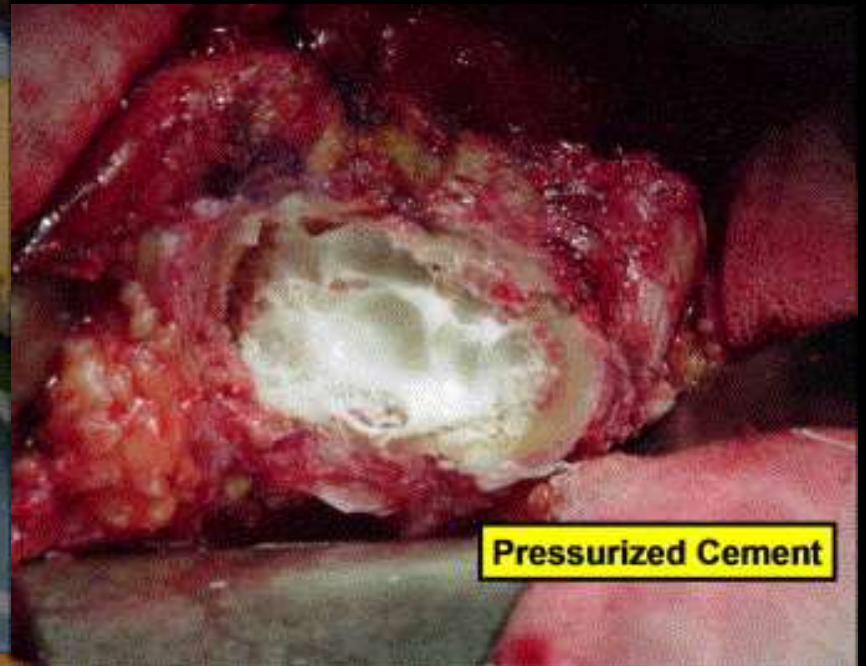
**Optimal femoral
cancellous surface**



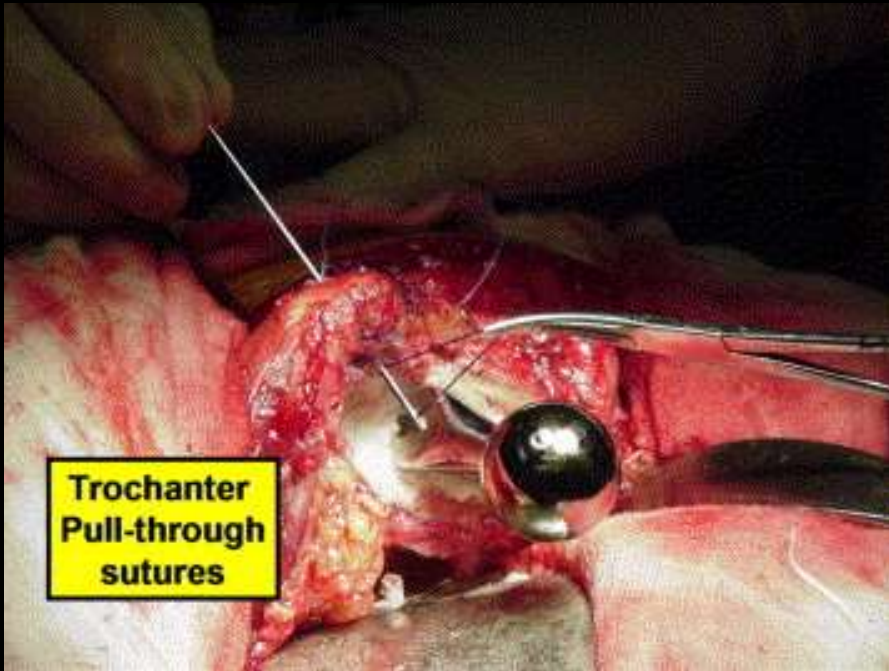
Cement pressurization & cement gun



Cement pressurization & cement gun



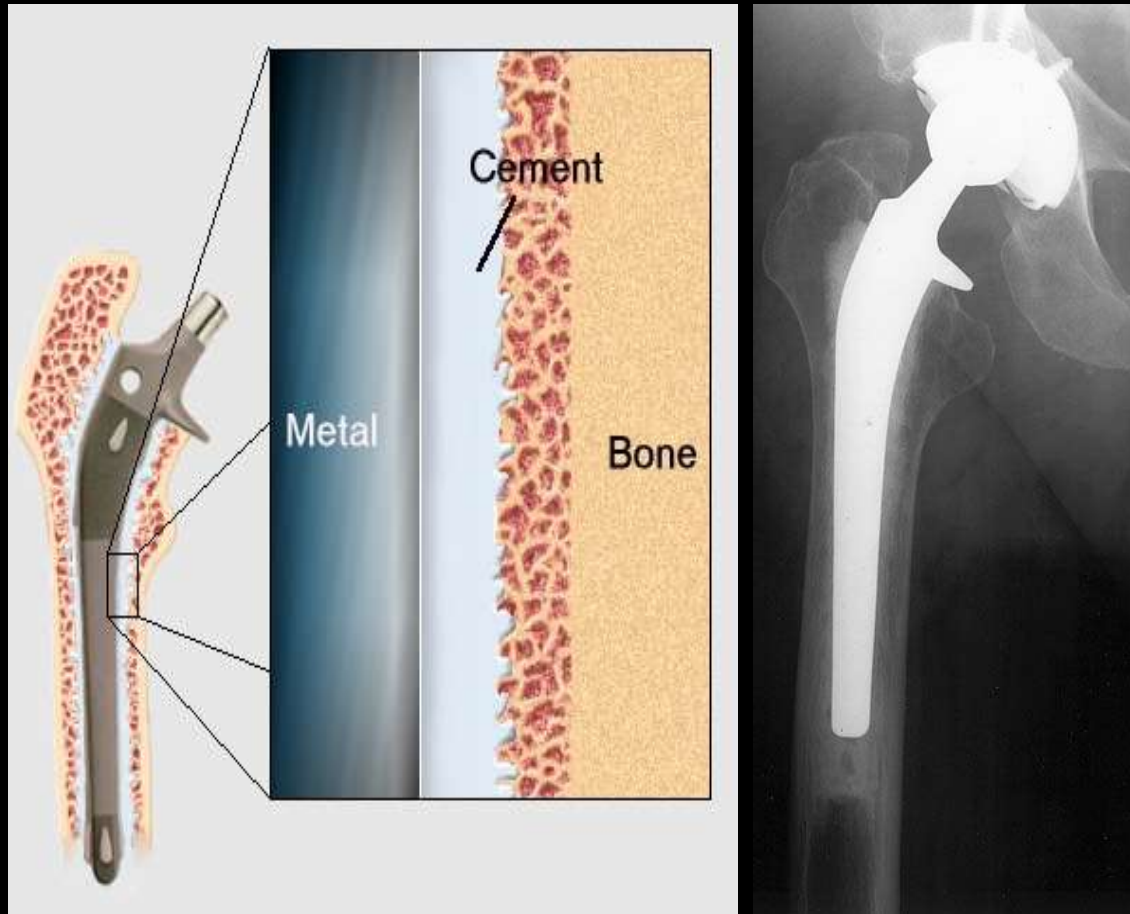
Cement pressurization & cement gun



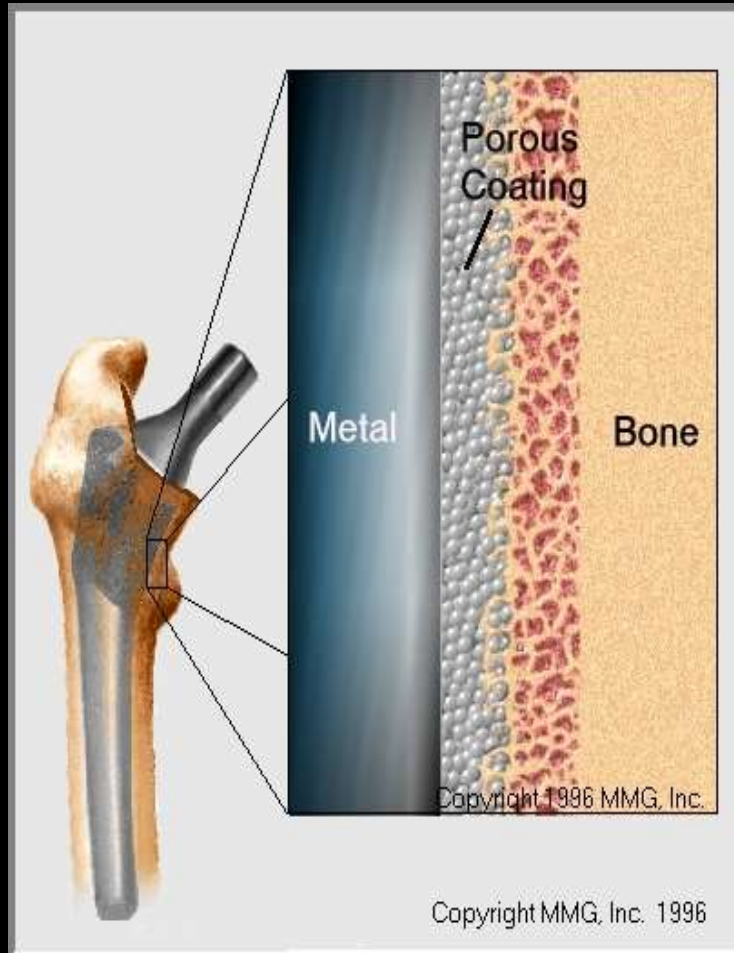
Intraoperative stability

- 90 degree flexion, Int. Rotation :
Sitting Posture
- 45 degree flexion, 15 deg adduction,
15 deg IR : **Sleeping Posture**
- Extension, External Rotation :
Turning Posture

Cement pressurization & cement gun



Proper stuffing of canal in case of uncemented implant



Difficult scenario (dysplastic or dysmorphic)

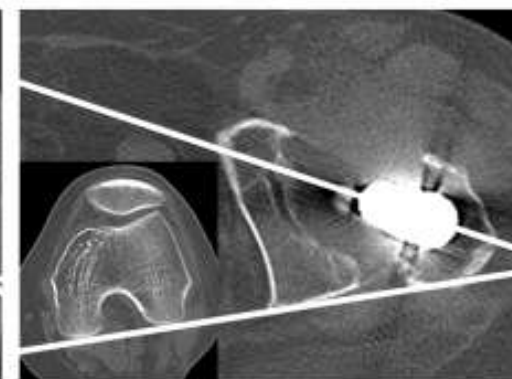
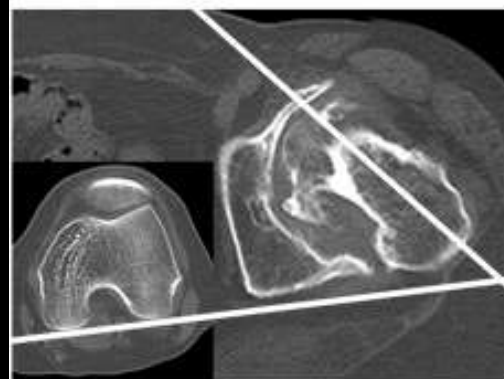


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KL
O



anticipate and keep small stems ready

Difficult scenario (dysplastic or dysmorphic)



Thank you

