

X-ray Templating Protocol

Image Transmission:

Only X-rays of patients receiving Zimmer Biomet implants should be transferred upon completion of the Personalized Solutions protocol.

Protocol Elements

DICOM Field Name	DICOM Tag	Content
Referring Physician Name	0008, 0090	Orthopaedic Surgeon Name (complete surname, complete first name)
Patient Name	0010, 0010	Last First Middle
Patient Date of Birth	0010, 0030	YYYYMMDD
Gender	0010, 0040	M or F

Please choose one:

Study Description	0008, 1030	For Left Knee, specify: ZBKNEEL For Right Knee, specify: ZBKNEER
Protocol Name	0018, 1020	For Left Hip, specify: ZBHIPL For Right HIP, specify: ZBHIPR

Knee Marker Placement

A/P Knee Image:

1. Patient is stabilized in an upright or recumbent A/P position.
2. Intercondylar plane is parallel to imaging device.
3. Images are acquired with cassette in bucky.
4. Palpate fibular head and place a metallic ball just anterior of it (Figure 1). Either a 1 inch (25.4 mm) or 30 mm marker can be used. If needed, the Zimmer Biomet representative can supply a marker. **Once marker size is determined during initial set-up, it must be used consistently throughout the X-ray process.**
5. Central ray is orthogonal and enters at the apex of the patella.

Marker should be elevated off the table and placed at the level of the joint line.

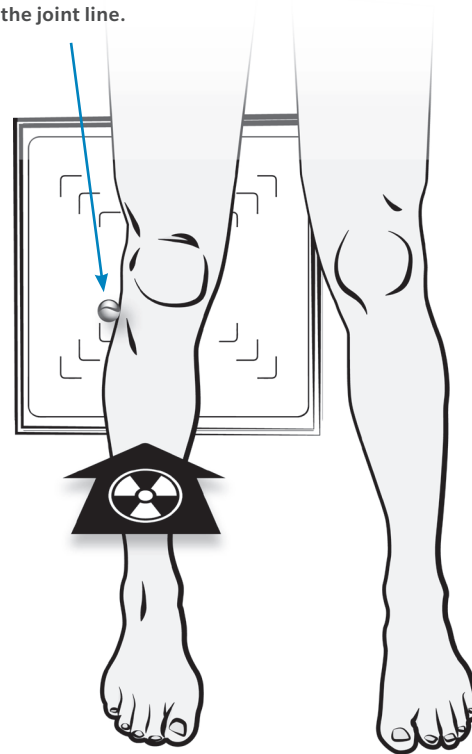


Figure 1

Proper marker placement



Lateral Knee Image:

1. Patient immobilized in lateral recumbent position with lateral femoral condyle of side of interest closest to table top.
2. Flex knee approximately 45 degrees. (Flexion will be determined by body habitus.)
3. Medial and lateral condyles are superimposed, intercondylar plane perpendicular to table top.
4. Images are acquired with cassette in bucky.
5. Place metallic ball on the patella tendon (Figure 2). Either a 1 inch (25.4 mm) or 30 mm marker can be used. If needed, the Zimmer Biomet representative can supply the marker.
Once the marker size is determined during initial set-up, it must be used consistently throughout the X-ray process.
6. Central ray enters at the medial condyle.
7. Central ray may be perpendicular to condyle or angled cephalic to achieve condyle superimposition.

Note: It is critical to have proper rotation in order to successfully template the case, meaning the medial and lateral condyles must be superimposed.

Marker should be elevated off the table and placed at the level of the joint line.

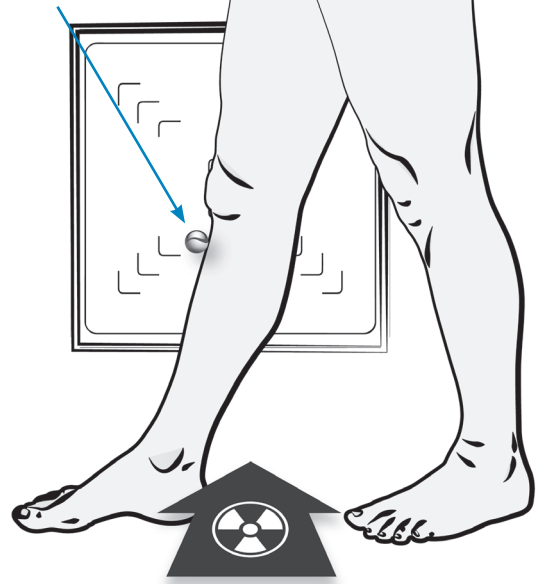


Figure 2

Proper rotation



Improper rotation



Hip Marker Placement

A/P Hip Image:

1. Immobilize the patient and place them supine on the X-ray table. Ensure that the patient is centered on the imaging surface.
2. Place the heels 8 to 10 inches apart and rotate the feet internally 15° to 20°.
3. Palpate the prominence of the greater trochanter. Place the Zimmer Biomet marker just lateral to the prominence (Figure 1 and Figure 2a).
4. Obese patients may require the marker to be placed between the legs so that it may be visualized on the X-ray. In this instance, position the marker lateral to the greater trochanter, fix the position, and then locate between the legs (Figure 2b).
5. Place the cassette such that it is centered on the pubic symphysis.
6. Direct the central ray in line with the greater trochanter.
7. Ensure the image contains the greater trochanter of the operative side, the contralateral greater trochanter, proximal half of the femur and the proximal acetabulum (Figure 3).

When complete, route to Zimmer Biomet per established IT connection.

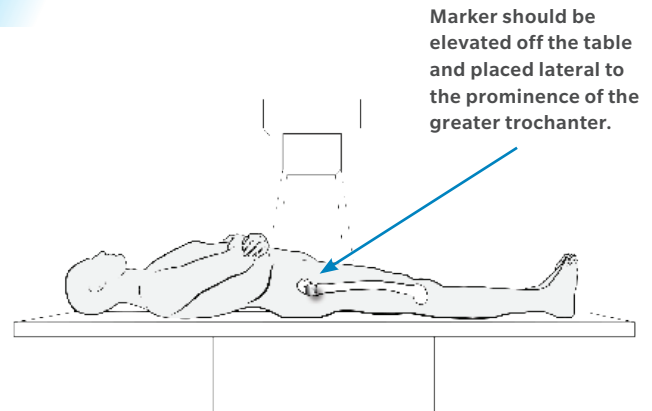


Figure 1

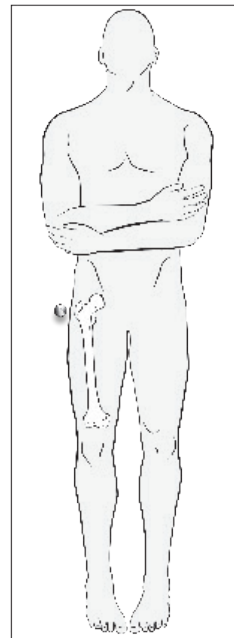


Figure 2a

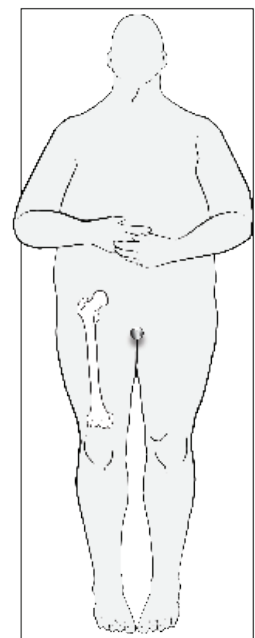


Figure 2b



Figure 3

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