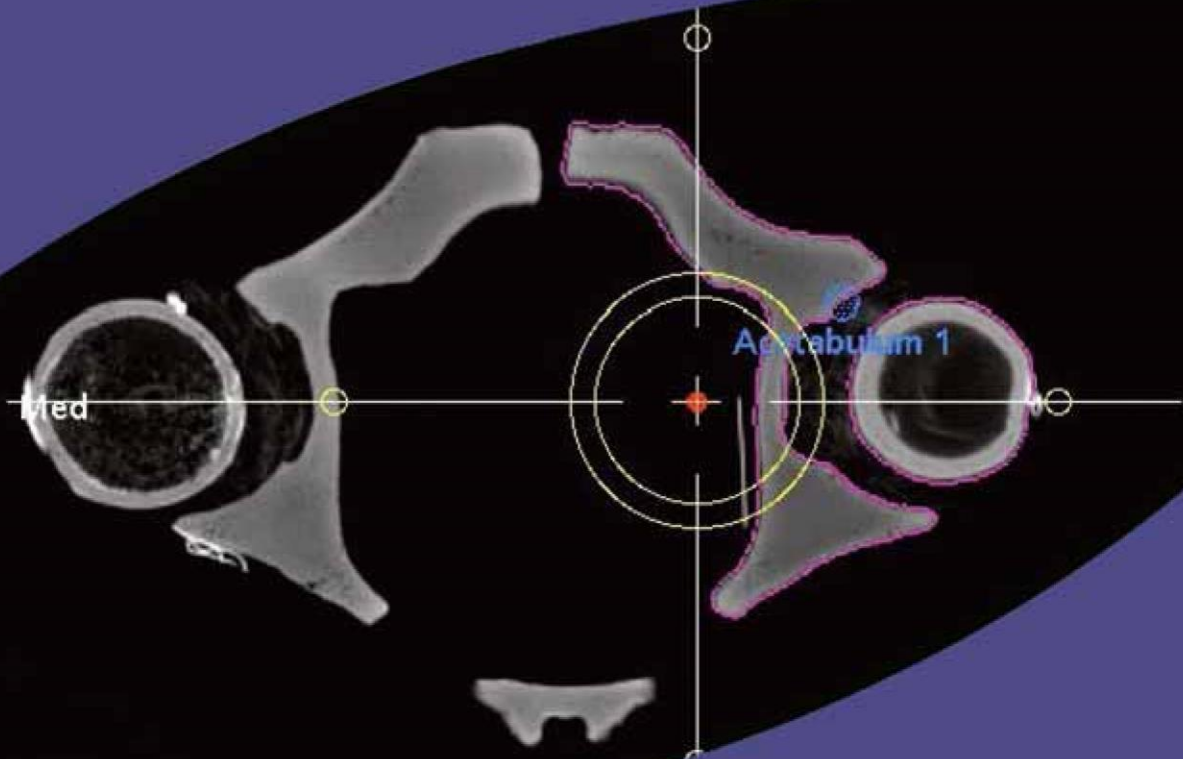


Mako™ THA

stryker®

CT Scanning Protocol



1. PATIENT SETUP AND CONFIGURATION

- Scan patient in supine position feet first, anytime before MAKOplasty® THA procedure (up to 8 weeks in advance).
- Position patient to minimize pelvic obliquity through the following measures:
 - Align both ankles and both knees
 - Ensure patient is in true supine position by palpating the anterior superior iliac spines and comparing relative height above the CT scanner bed
 - Align longitudinal axis of the body with longitudinal axis of CT scanning bed

2. IMAGING REQUIREMENTS

Two regions:

- Continuous scan with regions (using one series or topogram with two groups)

Pelvis + Proximal Femur

- 0.5 - 1mm interval spacing throughout the scan. No gap / no overlap
- Axial slices (1:1 pitch) using helical (spiral) scanning
- FOV: Scan includes the entire bi-lateral pelvis (Medial/Lateral/Anterior/Posterior/Superior) and at least 180mm below the lesser trochanter on the femur
- Table not included in the scan
- Complete Scanning and Data reconstruction in bone
- 512 x 512 matrix: Image must be a square
- kV: 120 - 140
- mA: 200 - 250

Knee

- 2.0 - 5.0mm interval spacing throughout the scan
- Axial slices (1:1 pitch) using helical (spiral) scanning
- FOV: Scan includes bilateral knee - joint lines between femur and tibia and 10cm proximal to joint line on femur
- Complete scanning and data reconstruction in bone
- 512 x 512 matrix: Image must be a square
- kV: 120 – 140

RECONSTRUCTION RECOMMENDATIONS

- Axial Bone and Axial ST 1 x 1
- Coronal and Sagittal Bone 1 x 1.5

- mA: 200 - 250



Figure 1. Scan Location and Characteristics

FOV should not exceed
500 mm

Slice Interval Spacing, mm	Distance mm	Number of Slices
0.500	180	360
0.625	180	288
0.750	180	240
0.875	180	206
1.000	180	180

3. POSITIONING THE PATIENT



During the scan, the pelvis and leg must remain motionless.

Imaging Artifacts

- Ensuring the patient is comfortable and relaxed is an important factor for achieving a motionless scan
- If metallic components are present in the pelvis or proximal femur, it may not be possible to obtain an image of significant quality to support a RIO® THA procedure
- Move metallic component away from scan region, if possible or use a metal suppression scan protocol

4. POST SCAN EXAMINATION

Scan Region

The physician and CT technologist should verify the following:

- Patient's orientation is correct
- Regions of interest in protocol are visible in dataset
- Image slice thickness resulted as required by the protocol
- Bone images in scan image are not degraded by metal-induced artifacts

5. DATASET TRANSFER

Archive all rendered images onto a single CD in DICOM 3 compatible format.

Include:

- Patient Name: (First and Last)
- Surgeon Name (Last)
- Operative Side (L,R or Bi)
- Gender (M or F)
- Date of Surgery xx/xx/xxxx

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