

Reading Hospital School of Health Sciences
Medical Imaging Program
MI 243 Clinical Seminar IV
2022

SI Joints

Routine:	AP Axial, RPO, and LPO
Position/ Projection:	Supine (AP Axial)
Patient Prep:	Remove everything except underwear, socks, and shoes.
Technique:	90 kVp $\text{O} \bullet \text{O}$: non AEC 14 mAs (Bucky)
SID:	40" SID
Collimation:	12 x 10 Landscape (Crosswise)
Patient Position:	Place the patient supine on the table. Adjust the pelvis so it is not rotated.
Central Ray:	The central ray enters 1 ½ inches superior to the pubic symphysis, and down the midline of the body. The central is angled: <ul style="list-style-type: none">• 30° cephalad angle for males• 35° cephalad angle for females
Marker Placement:	Appropriate right or left marker should be placed on the image.
Shielding:	No shielding per RH protocol – if requested can only shield males
Breathing Instructions:	Suspended expiration- RH Protocol Suspended respiration- Merrill's
Purpose/ Structures:	The lumbosacral joint and a symmetric image of both sacroiliac joints free of superimposition.
Evaluation Criteria:	<ul style="list-style-type: none">• Evidence of proper collimation and presence of the side marker placed clear of anatomy of interest• Lumbosacral junction and sacrum• Open intervertebral disk space between L5 and S1• Both sacroiliac joints• Bony trabecular detail and surrounding soft tissues

Merrill's Note:

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- Images can be taken prone if patient cannot tolerate lying on back. The central ray must be angled caudad.

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- Position/ Projection:** RPO and LPO (AP Obliques)
- Patient Prep:** Remove everything except underwear, socks, and shoes.
- Technique:** 90 kVp $\odot \bullet \odot$: non AEC 16 mAs (Bucky)
- SID:** 40" SID
- Collimation:** 6 X10 Portrait (Lengthwise)
- Patient Position:** Start with patient supine, legs straight. Elevate the side under examination about 25 – 30 degrees. Use a large angle sponge behind patient to maintain position.
- Central Ray:** Perpendicular to the IR and centered 1 inch medial to the elevated ASIS.
- Marker Placement:** Appropriate right or left marker should be used to mark laterally on the elevated side.
- Shielding:** No shielding per RH protocol – if requested can only shield males.
- Breathing Instructions:** Suspended expiration- RH Protocol
Suspended respiration- Merrill's
- Purpose/ Structures:** The sacroiliac joint farthest from the IR and an oblique projection of the adjacent structures. Both sides are examined for comparison.
- Evaluation Criteria:**
- Evidence of proper collimation and presence of the side marker placed clear of anatomy on interest
 - Open sacroiliac joint space with minimal overlapping of the ilium and sacrum
 - Joint centered on the radiograph
 - Bony trabecular detail and surrounding soft tissues

SI Joint – SPECIAL VIEW

*14th edition Merrill's Volume I, page 483-484

- Position/Projection:** RAO and LPO (PA Oblique)
- Patient Prep:** Remove everything except underwear, socks, and shoes.
- SID:** 40" SID
- Collimation:** 6 X10 Portrait (Lengthwise)
- Patient Position:** Place the patient in the prone position. Rotate the side of interest toward the radiographic table 25-30 degrees. Have patient rest on the forearm and flexed knee of the elevated side.
- Central Ray:** Perpendicular to the IR and centered 1 inch medial of the ASIS closest to the IR.
- Marker Placement:** Appropriate right or left marker should be used to mark laterally on the side closest to the table.
- Shielding:** You only shield males on this view.
- Breathing Instructions:** Suspended expiration- RH Protocol
Suspended respiration- Merrill's
- Purpose/Structures:** The sacroiliac joint closest to the IR and an oblique projection of the adjacent structures. Both sides are examined for comparison.

Evaluation Criteria:

- Evidence of proper collimation and presence of the side marker placed clear of anatomy on interest
- Open sacroiliac joint space closest to IR or minimal overlapping of the ilium and sacrum
- Joint centered on the radiograph
- Bony trabecular detail and surrounding soft tissues

