
جامعة المستقبل
كلية التقنيات الصحية والطبية
قسم تقنيات الاشعة
المرحلة الثالثة

# Radiography

# Thoracic Spine and Lumbar Spine

BY

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# AP: Thoracic Spine

- **Position**
- • Supine, spine aligned and centered to midline of table and/or IR;
- ex hips and knees to reduce lordotic curvature
- • Ensure top of IR is at least 1½" (3 cm) above shoulder
- • Ensure no rotation of thorax or pelvis; shield radiosensitive tissues
- **Central Ray:** center of IR (at level of T7 [as for an AP chest],
- 3–4" or 8–10 cm below jugular notch)
- **Collimation:** Long narrow collimation eld to T spine region
- **Respiration:** Expose on expiration for more uniform density

SID: 40” (102 cm)
Analog: 75–85 kV
Digital Systems: 85 ± 5 kV
35 × 43 cm (14 × 17”)portrait
• Grid


# Lateral: Thoracic Spine

- **Position**
- • Recumbent, support under head, lateral with knees exed, arms
- raised, and elbows exed Shield radiosensitive tissues
- • Align and center midaxillary plane to midline of table and/or IR
- • Ensure top of IR is at least 1½" (3 cm) above shoulders; no rotation
- • Supports should be placed under lower back, as needed, to
- straighten and align spine near parallel to tabletop (A slight
- natural curvature corresponding to divergent rays is helpful)
- **Central Ray:** center of IR T7 (3–4" [8–10 cm] below jugular
- notch or 7–8" [18–21 cm] below the vertebra prominens) A patient
- with broad shoulders may require a 10°–15° cephalic CR angle if waist
- is not supported
- **Collimation:** Long, narrow collimation eld to T spine region
- **Respiration:** Orthostatic (breathing) technique recommended—
- minimum of 2–3 seconds; or expose on full inspiration

SID: 40” (102 cm)
35 × 43 cm (14 × 17”) portrait
• Grid
Analog: 80–90 kV
Digital Systems: 90 ± 5 kV

# AP : Lumbar Spine

- **Position (AP)**
- • Supine, spine aligned to midline of
- table and/or grid
- • Flex hips and knees (to reduce
- lordotic curvature)
- **Central Ray:** ≈1½″ (4 cm) above
- iliac crest (L3); or center at crest for 35 × 43 cm IR
- **Collimation:** Long, narrow collimation eld to L spine region (include
- SI joints)Respiration: Expose at end of expiration

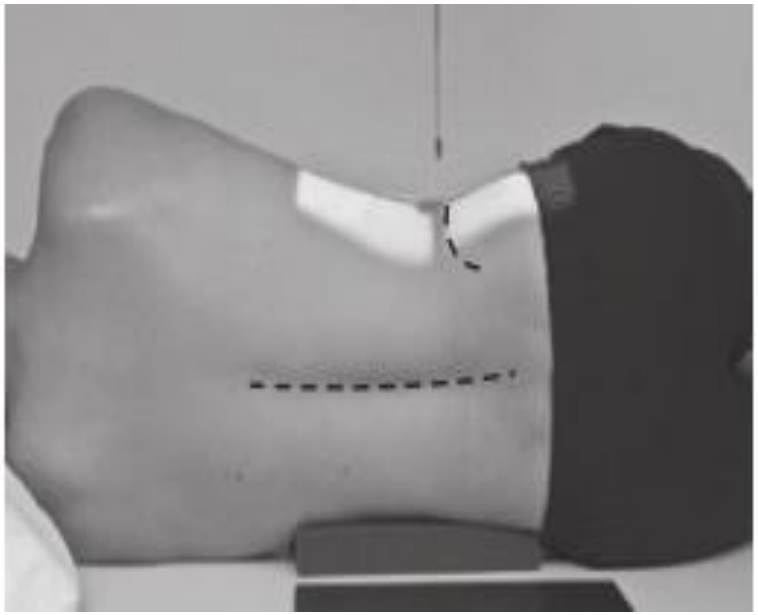
SID: 40″ (102 cm)
• 30 × 35 cm (11 × 14″)
portrait or 35 × 43 cm
(14 × 17″) portrait
• Grid
Analog: 75–85 kV
Digital Systems: 85 ± 5 kV


# Lateral: Lumbar Spine

- **Position**
- Recumbent in true lateral position, ex hips and knees, align and
- center midaxillary plane to centerline
- • Place support under waist, as needed, to place entire spine parallel
- to tabletop (see Note) Provide support between knees
- • Center IR to CR
- **Central Ray:** level of ≈1½″ (4 cm) above iliac crest (L3), or at iliac crest (L4) for 35 × 43 cm (14 × 17″) IR

- **Collimation:** Long, narrow collimation eld to L spine region
- **Respiration:** Expose at end of expiration
- **Note:** Patient with wide pelvis and narrow thorax may require a 3°–5° caudal
- CR angle, even with support under waist If patient has natural lateral curvature
- (scoliosis), place “sag” or convexity down

30 × 35 cm (11 × 14″)
portrait or 35 × 43 cm
(14 × 17″) portrait
• Grid
SID: 40″ (102 cm)
Analog: 80–90 kV
Digital Systems: 85 ± 5 kV



# flexion and extension:
# Lumbar Spine erect

- 35 × 43 cm
- (14 × 17″)portrait
- • Grid
- SID: 40″ (102 cm)
- Analog: 85–95 kV
- Digital Systems: 90 ± 5 kV

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THANK YOU
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