



Proteus XR/f

Patient positioning guide



PROTEUS XR/F

Now a single digital x-ray room accommodates nearly all your radiographic studies. With extended tube coverage and wireless detectors, Proteus XR/f gives you full flexibility to image patients on the table, at the wall stand, or elsewhere in the room. With its versatile and robust floor-mounted design, you can perform a wide range of dose-efficient radiographic exams, from head to toe, on patients of all sizes, ages, and degrees of mobility.

Cross table hip - right

Positioning:

- Patient supine on the table, arms across upper chest
- Cushion for patients head
- Flex and elevate unaffected leg so that the thigh is as near vertical position as possible and outside of the collimation field. Support the leg in this position with (sponge, chair or on the collimator)
- Check to ensure no rotation of the pelvis
- Place detector in crease above iliac crest and adjust so that it is parallel to femoral neck and perpendicular to central ray (use a dedicated detector holder)
- Internally rotate affected leg 15° to 20° (do not attempt to internally rotate if fracture or dislocation suspected), sandbags may be used to maintain this position

Imaging technique:

FOV: 24 x 30 cm
SID: 100 cm

Alignment:

CR perpendicular to long axis of femoral neck and centered at mid point.

Notes:



Cross table hip - left

Positioning:

- Patient supine on the table, arms across upper chest
- Cushion for patients head
- Flex and elevate unaffected leg so that the thigh is as near vertical position as possible and outside of the collimation field. Support the leg in this position with (sponge, chair or on the collimator)
- Check to ensure no rotation of the pelvis
- Place detector in crease above iliac crest and adjust so that it is parallel to femoral neck and perpendicular to central ray (use a dedicated cassette holder)
- Internally rotate affected leg 15° to 20° (do not attempt to internally rotate if fracture or dislocation suspected), sandbags may be used to maintain this position

Imaging technique:

FOV: 24 x 30 cm
SID: 100 cm

Alignment:

CR perpendicular to long axis of femoral neck and centered at mid point.

Notes:



Sunrise (tangential patella)

Positioning:

- Patient supine on the table with feet resting on table
- Cushion for patients head
- Have patient flex affected knee/s slowly until patella is perpendicular to IR, if condition permits.
- Check to ensure CR perpendicular to detector
- Adjust leg so that no rotation occurs

Imaging technique:

FOV: proper to anatomy
SID: 100 cm

Alignment:

CR perpendicular to joint space. Angulation depends on degree of flexion of the knee.

Notes:



Modified merchant view (tangential patella)

Positioning:

- Patient supine on the table with feet resting on table
- Cushion for patients head
- Have patient flex affected knee/s slowly until patella is perpendicular to detector, if condition permits
- Adjust leg so that no rotation occurs

Imaging technique:

FOV: Proper to anatomy
SID: 100 cm

Alignment:

CR perpendicular to joint space. Angulation depends on degree of flexion of the knee.

Notes:



Axial shoulder (superior-inferior) at table

Positioning:

- Have the patient seated close to the end of the table
- Place the detector close to the patient
- Ask the patient to hold the hand of the affected side and raise the arm to a position near as possible at right angles to the long axis of the body
- Then have the patient lean laterally over the detector until the shoulder joint is over the center of the detector
- Bring the elbow to rest on the table
- Flex the patient elbow and place the hand in a prone position
- Have the patient tilt the head towards the unaffected shoulder

Imaging technique:

FOV: 24 x 30 cm
SID: 100 cm

Alignment:

CR to shoulder joint at an angle of 5° to 15° towards the elbow.

Notes:



Wheelchair (seated) chest

Positioning:

- Have the patient seated in wheelchair with erect positioning
- Place the detector behind the patient
- Have the patient place sufficient pressure against the detector and back of wheelchair

Imaging technique:

FOV: 35 x 43 cm
(landscape or portrait)
SID: 180 cm

Alignment:

CR centered at level
of T7, perpendicular
to detector.

Notes:



Knee weight bearing

Positioning:

- Patient erect, standing
- Posterior portion of knee of patient against the upright receptor
- Position feet straight ahead with weight evenly distributed on both feet (support handles may be required for some patients)
- Align and center bilateral legs and knees to detector

Imaging technique:

FOV: Collimated to part
SID: 100 cm

Alignment:

CR perpendicular to detector or 5° to 10° caudal on thin patients, directed to a midpoint between the knee joints, 1.2cm below the apex of the patella.

Notes:



Weight bearing feet/ankles

Positioning:

- Patient is erect with weight evenly distributed
- Have patient stand on step stool
- Provide support for patient to hold onto
- Long axis of the foot centered to long axis of cassette

Imaging technique:

FOV: 24 x 30 cm
SID: 100 cm

Alignment:

CR perpendicular to detector at midfoot.

Notes:



Shoulder AP

Positioning:

- Patient standing with back to upright receptor (can be performed supine)
- Check the patient is standing up straight (their upper mid-coronal plane is vertical and parallel to detector)
- Rotate the patient slightly, if necessary, so that their affected shoulder is in contact with the upright receptor

Imaging technique:

FOV: 24 x 30 cm landscape
SID: 100 cm

Alignment:

CR Directed to the glen humeral joint, perpendicular to the detector.

Notes:



Chest PA WS

Positioning:

- Patient erect, standing or seated, facing the receptor
- Arms relaxed at the sides
- Centre the midsagittal plane of the patient to the midline of the detector
- Have the patient relax their shoulders and rolled forward to touch the receptor
- Adjust the height of the receptor so that the upper border of the IR is 5cm (2 inches) above the shoulders
- Raise the chin and rest on or above the receptor
- Clear the scapulae off the lung fields by getting the patient to either:
 - A. "Hug" the bucky by bringing the forearms behind the bucky, or
 - B. Place the back of their hands against their lower hips

Imaging technique:

FOV: 35 x 43 cm landscape usually, but may be portrait depending on body habitus.
SID: 180 cm

Alignment:

CR Directed to the midsagittal plane at the level of T7, perpendicular to the detector.

Notes:



C Spine AP

Positioning:

- Take care to ensure no rotation of either the head, neck or torso
- Using the upright receptor, position the patient in an AP position. (This allows the patient to rest their back against the receptor, and may help to minimize patient movement)
- Position the midsagittal plane so that it is perpendicular to the IR
- Position the interpupillary line so that it is parallel to the IR (in an erect patient, this will also be parallel to the floor)
- Raise the chin slightly, so that the line of the occlusal plane superimposes the base of the skull

Imaging technique:

FOV: 24 x 30 cm
SID: 100 cm

Alignment:

Directed to the level of C4, which is approximately the level of the angle of the mandible 15 degrees cephalad.

Notes:



Elbow lateral table

Positioning:

- Patient seated at end of table
- Elbow flexed to 90°
- Raise table or drop shoulder so that humerus and forearm are at the same plane
- Rotate hand and wrist into a true lateral position, with thumb up
- Place support under hand and wrist to elevate hand and distal forearm (so forearm is parallel to detector)

Imaging technique:

FOV: 24 x 30 cm
SID: 100 cm

Alignment:

To the mid elbow joint
4cm medial to posterior
surface of olecranon
process perpendicular
to detector.

Notes:



Abdomen

Positioning:

- Patient is supine on the table
- Cushion for head
- Patient's arms slightly abducted from the torso
- Positioned without rotation of the pelvis and torso
- Center to the midsagittal plane of the patient to the midline of the detector

Imaging technique:

FOV: 24 x 35 cm
SID: 100 cm

Alignment:

CR directed to the midsagittal plane at the level of the iliac crests.

Notes:





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GE imagination at work

Data subject to change

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