

## Obliques: Which Foramen Are We Looking At?

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It certainly helps to label the right side from the left when performing studies of the spine or any extremity. We tend to forget that not everyone puts an ID marker in the left-hand corner of the film, or that doctors always take posterior obliques of the cervical spine. When films are sent out of our office for any reason, it is very helpful to have right/left labels on the film. I know every one of us would agree, but not everyone does it. In my own private study, questioning my colleagues and clients, almost a third of us (maybe more) do not take the time to label films. This might actually be an interesting study for ChiroPoll, but I do not want to know the actual numbers. I think the results might not reflect well on our profession.

I'm here to remind you to label your patients' films right and left. Here are the general rules. In the AP projection, it is obvious that only right or left needs to be labeled. In the lateral projection of the axial skeleton, the sides are not generally labeled because it is too difficult to see the difference. The side that is closest to the film is the side that has the least distortion, but that is difficult to see when the structures are small. With larger structures such as the knee, for example, the condyle closest to the film is the smallest.

Again, however, lateral views of the spine are not labeled as to which side is closest to the film. The lateral view of an extremity should of course be labeled the same as the AP.

There are two ways to perform oblique positions in a cervical or lumbar series: anterior to posterior and posterior to anterior. It doesn't matter which way you choose to perform the view as long as you are consistent and label them to identify which foramina or facet is closest to the film.

The side (right or left) closest to the film is always marked. Oblique positions are determined by the right or left side of the patient and the anterior or posterior surface being closest to the film.

Therefore, a RPO position means an oblique view, with the right posterior body surfaces in contact with or closest to the film, table or bucky. Likewise, a LAO position is an oblique view, with the left anterior body surfaces in contact with or closest to the film, table or bucky.

With anterior obliques, the patient faces the bucky and the body is rotated 45 degrees away from the film. The head is then positioned parallel with the plane of the bucky, with the chin tilted upward slightly. Patients tend to want to tilt their heads away from the bucky. Don't allow that to happen. When the patient tilts the head away, it's difficult to determine if the foramina are narrowed due to pathology or positioning.

With posterior oblique views, the patient faces the tube and the body is rotated 45 degrees away from the film. The head is then positioned parallel to the bucky and the chin is tilted slightly upward.

For both cervical anterior and posterior oblique views, the tube should be tilted 15 degrees: caudad for anterior obliques and cephalad for posterior obliques. The central ray should be at the C4 level. To identify anterior from posterior oblique views, if you are only using "R" and "L" markers, the marker

should be placed in front of the spine for anterior obliques and behind the spine for posterior obliques. If you are using "RPO" or "RAO" markers, it doesn't matter.

Remember, the oblique views of the cervical spine demonstrate the intervertebral foramina, uncovertebral joints, apophyseal joints and pedicles. The rules by which foramina are demonstrated are: posterior obliques demonstrate the contralateral foramina, i.e., RPO demonstrates the left foramina; the anterior obliques demonstrate the homolateral structures, and RAO shows the right foramina.

Right and left posterior oblique views of the lumbar spine are performed with the body rotated approximately 30-35 degrees toward the side being examined. (The side that is closest to the bucky is the side examined.) The central ray is positioned approximately two inches above the iliac crest (L3) and two inches medial to the ASIS of the side that is away from the film. Exposure should be made upon expiration.

Anterior oblique views are performed with the body rotated 30-45 degrees away from the bucky. The central ray is positioned two inches above the iliac crest, and the spine centered to the midline of the bucky. In this case, the side farthest from the film is the side that is visualized. For example, in a right anterior oblique view, the left apophyseal joints are visualized. In the right posterior oblique view, the right apophyseal joints are visualized.

If we don't label our oblique views, there is no way of knowing which side we are demonstrating on the film.

### *Reference*

Buehler M, Pugh J, Sandman T. *Physics and Technology in Routine Radiography*. National College of Chiropractic, 1979.

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