




POSITIONING GUIDE CERVICAL SPINE

Cervical Spine Protocol for CRMA Studies

 www.thespinalkinetics.com

 **877-508-9729**

If you have additional questions or
need further assistance, please feel free to call us
or reach out to support@thespinalkinetics.com

POSITIONING GUIDE

CERVICAL SPINE

Cervical Spine Protocol for CRMA studies

1. Lateral C-Spine Neutral (recommended)
2. Lateral C-Spine Flexion (required)
3. Lateral C-Spine Extension (required)
4. APOM with Lateral Bends/Tilt (recommended)



****You must review your films prior to sending into Spinal Kinetics for a CRMA study. Ensure all necessary views are taken and all anatomy is clearly visualized.**

You will need to re-take your films if there is:

1. Motion
2. Artifact (necklaces, earrings, zippers, hair pins, etc) that are superimposing anatomy
3. We can only use the vertebrae that are visualized on BOTH the Flexion and Extension views. Therefore, if you can see C1-C4 on Flexion and C1-C7 on Extension, re-take the Flexion view to include C1-C7.
4. If the images are too dark or light to see all 4 corners of the vertebral bodies clearly.
5. If there is rotation of the spine.

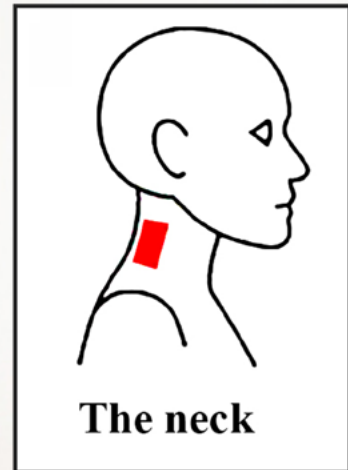
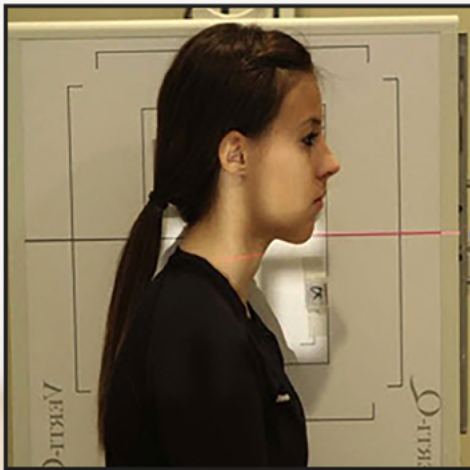
Helpful hints for positioning

1. Have the patient sit if they are unsteady.
2. Use sand bags to help lower the shoulders down to visualize C6/C7/T1 better.
3. For lateral images, look at the patient from the front to be sure there is no head rotation.



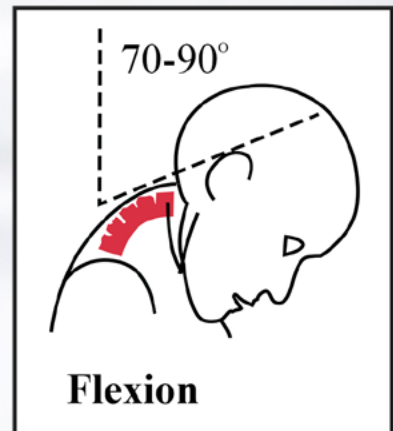
Lateral Cervical Spine Neutral (Recommended)

1. Patient standing erect or sitting, no rotation of the head.
2. Top of imaging receptor 1-2" above the External Auditory Meatus.
3. Raise chin slightly to remove the mandible angles from the spine.
4. Relax and depress both shoulders evenly.
5. Central Ray should be at the level of C4 (upper thyroid cartilage).
6. Expose on expiration.
7. Ideally, we are able to view C1-C7/T1. If this is not possible, we will measure the levels that are able to be visualized clearly.



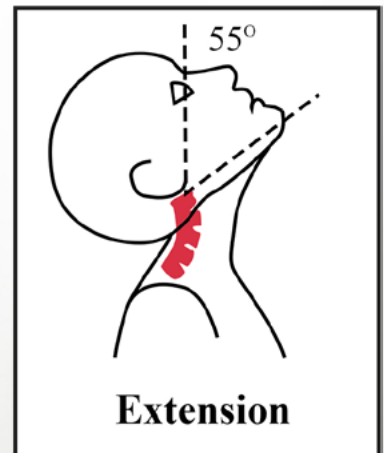
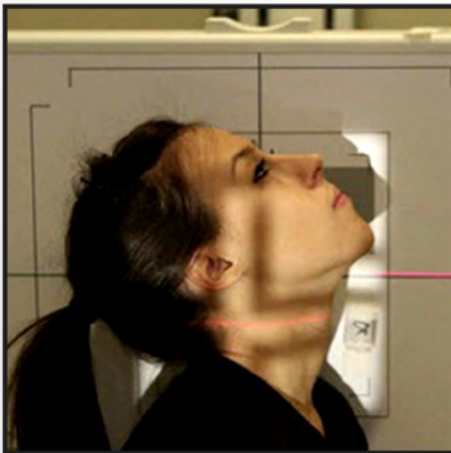
Lateral Cervical Spine Flexion (Required)

1. Patient standing erect or sitting, no rotation of the head.
2. Relax and depress shoulders evenly.
3. Central Ray should be at the level of C4 (upper border of the thyroid cartilage).
4. Expose on expiration.
5. Ideally, we are able to view C1-C7/T1. If this is not possible, we will measure the levels that are able to be visualized clearly.



Lateral Cervical Spine Extension (Required)

1. Patient standing erect or sitting, no rotation of the head.
2. Relax and depress shoulders as much as possible.
3. Depress chin to touch chest if possible.
4. Central Ray should be at the level of C4 (upper border of the thyroid cartilage).
5. Expose on expiration.
6. Ideally, we are able to view C1-C7/T1. If this is not possible, we will measure the levels that are able to be visualized clearly.



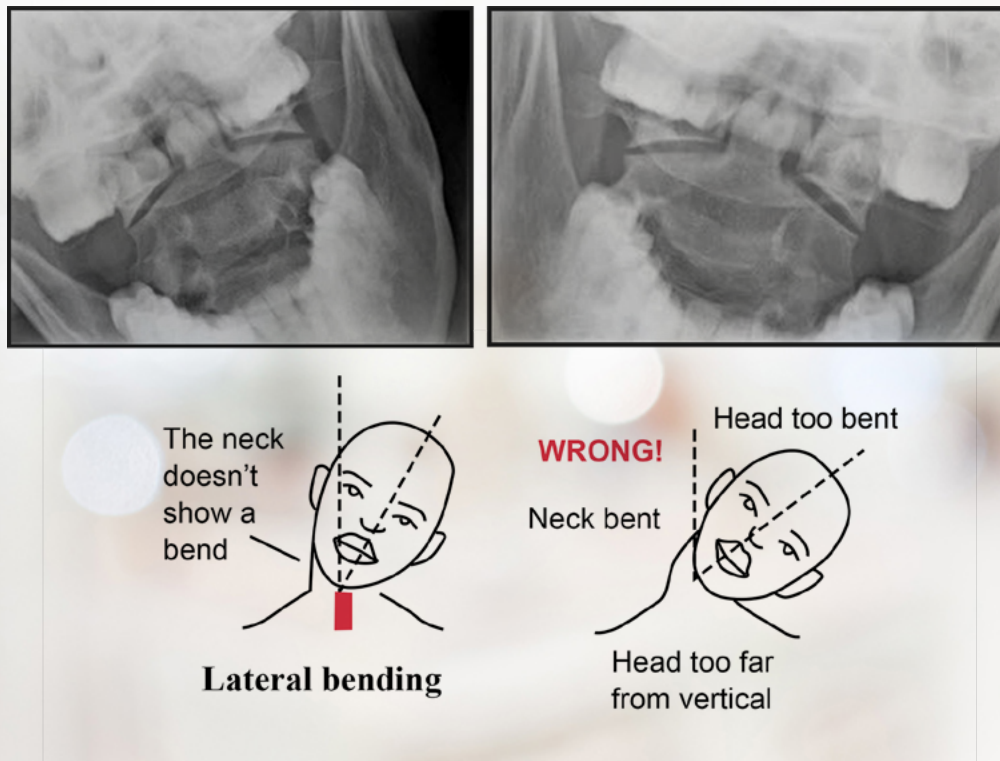
APOM Lateral Right and Left Bends

(also known as APOM Lateral Right Tilt/Left Tilt)

1. Patient erect standing AP, centered to the Central Ray, utilize a 5° Cephalad Tube tilt.
2. Adjust head without opening mouth – biting surface of upper incisors (junction of lips) aligned with the base of the skull (mastoid tips).
3. Head straight with no rotation.
4. Have patient open mouth wide, only moving the lower jaw.
5. Have patient tilt head, with mouth open, 30-35° to the right making sure the center of the cervical spine does not move and that the alignment of the upper incisors and base of skull are still lined up.
6. Have patient hold their breath and make exposure.
7. Repeat steps above, but have the patient tilt their head to the left and take a second exposure.

Here is an example of what Good APOM Right Lateral Bend and APOM Left Lateral Bend should look like.

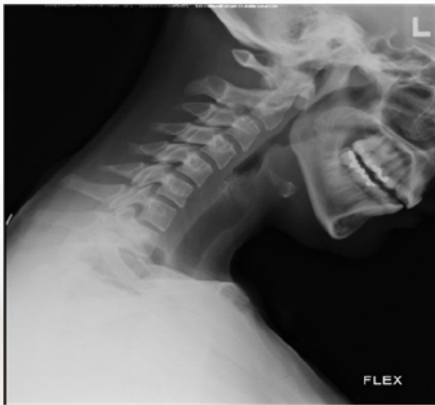
CRMA measures from the Lateral Edges of C1 on top of C2, not at the Odontoid Process.



CERVICAL SPINE IMAGES

(Acceptable vs. Unacceptable Examples)

The images below are examples of great diagnostic quality. We were able to visualize C1-C7 with no motion and the contrast of the images is superb.



The images below are examples that need to be repeated. The necklace is obscuring C5/C6 so we could only use C1-C3 for the CRMA due to the Flexion view only showing C1- C3.

