



|                     |   |                                                                |            |   |                |
|---------------------|---|----------------------------------------------------------------|------------|---|----------------|
| Patient Name        | : | [REDACTED]                                                     | Modality   | : | RF             |
| Patient ID          | : | 11222503                                                       | Body Part  | : | CERVICAL SPINE |
| Date of Birth       | : | [REDACTED]                                                     | Sex        | : | M              |
| Referring Physician | : | [REDACTED]                                                     | Age        | : | 44Y3M          |
| Study Description   | : | MOTION ANALYSIS DIAGNOSTIC FLUOROSCOPIC RADIOLOGICAL PROCEDURE |            |   |                |
|                     |   |                                                                | Study Date | : | 2025-11-22     |
|                     |   |                                                                | Study Time | : | 11:30:27       |

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## Final Radiologic Findings

### DIAGNOSTIC IMAGING REPORT

#### RADIOGRAPHIC EXAMINATION - CERVICAL SPINE

The patient was positioned seated with the head secured in the Motion Normalizer and shoulders relaxed to prevent obstruction. Fluoroscopy was centered on C2–C7 in a lateral view. The patient's neck was guided through a slow, controlled flexion-to-extension motion while continuous images were obtained, ensuring no rotation or shoulder interference and avoiding patient compensation from the shoulders and upper back.

**INDICATIONS:** Images received for secondary radiographic consultation. Assess ligamentous injury through evaluation of Alteration of Motion Segment Integrity (AOMSI), documenting increased translational or angular motion in accordance with the DRE categories (AMA Guides to the Evaluation of Permanent Impairment, 5th Edition, p.392).

**COMPARISON:** None.

#### FINDINGS:

Fluoroscopic images were submitted for review.

Cervical lordosis measures approximately 13° utilizing the Cobb method with the superior endplate of C2 and inferior endplate of C7. The atlantodental interval is maintained. There is no evidence of acute fracture or dislocation, however diagnostic interpretation is limited to a single anatomic plane. Overall osseous density is maintained.

Vertebral body heights are maintained. Intervertebral disc spaces are relatively preserved.

The prevertebral soft tissues are maintained.

#### IMPRESSIONS:

1. No acute osseous abnormality of the cervical spine.
2. Reduced flexion in the lower cervical spine.
3. Reduced extension in the low cervical spine.
4. There is a reduced cervical lordosis. This may be due to muscle spasm.



PATIENT NAME: [REDACTED]  
DATE OF BIRTH: [REDACTED]  
GENDER: M  
DATE OF EXAM: 11/22/2025

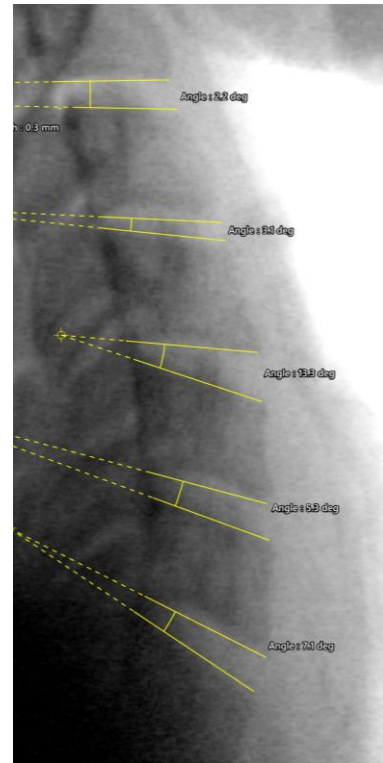
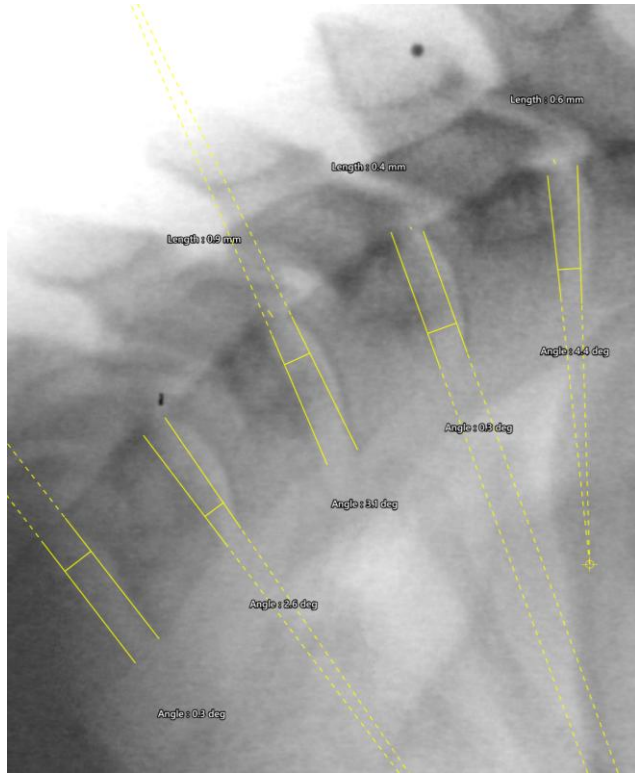
| Translational Motion Assessment |                |                  |         |
|---------------------------------|----------------|------------------|---------|
| Levels                          | Flexed Lateral | Extended Lateral | Results |
| C2-C3                           | 0.6mm          | -0.3mm           | 0.9 mm  |
| C3-C4                           | 0.4mm          | 0 mm             | 0.4 mm  |
| C4-C5                           | 0.9mm          | 0 mm             | 0.9 mm  |
| C5-C6                           | 0 mm           | 0 mm             | 0 mm    |
| C6-C7                           | 0 mm           | 0 mm             | 0 mm    |

| Angular Motion Assessment |                |                  |         |
|---------------------------|----------------|------------------|---------|
| Levels                    | Flexed Lateral | Extended Lateral | Results |
| C2-C3                     | 4.4°           | -2.2°            | 6.6°    |
| C3-C4                     | 0.3°           | -3.1°            | 3.4°    |
| C4-C5                     | -3.1°          | -13.3°           | 10.2°   |
| C5-C6                     | 2.6°           | -5.3°            | 7.9°    |
| C6-C7                     | -0.3°          | -7.1°            | 6.8°    |



# RIO ADVANCED DIAGNOSTICS

PATIENT NAME: [REDACTED]  
DATE OF BIRTH: [REDACTED]  
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**Subnotes:** 1. Translational motion is measured utilizing Myerding method and measurements are provided in millimeters (unless otherwise indicated). Positive values refer to an anterior translation and negative values refer to a posterior translation. Positive angles open to the back, and negative angles open to the front.

2. According to the AMA guidelines 5th edition. Translation motion equal to or exceeding 3.5 mm in the cervical spine is considered to indicate instability. Translational motion equal to or exceeding 4.5 mm or 15% of the vertebral body width is considered to indicate instability.

3. According to the AMA guidelines 5th edition: Angular motion equal to or greater than 11° in the cervical spine may indicate instability. Angular motion at L1-L2, L2-L3 or L3-L4 greater than 15°, or 20° at the L4-L5 and 25° at the L5-S1 level may indicate instability.

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RADIOLOGIST