



FORAMINAL COMPRESSION TEST (SPURLING)

TEST POSITIONING

With the subject seated comfortably, the examiner rests the volar surface of both hands on top of the subject's head (Figure CS2-2A).



Figure CS2-2A.

ACTION

The examiner applies a downward pressure while the subject laterally flexes the head. The test is repeated with the subject laterally flexing to the opposite side. Lateral flexion may be performed both actively and passively (Figure CS2-2B).

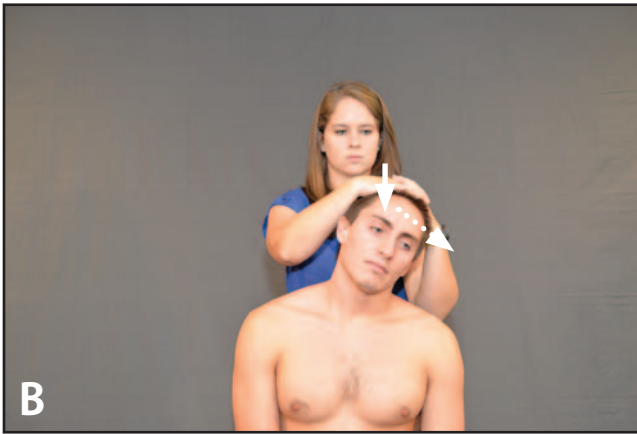


Figure CS2-2B.

POSITIVE FINDING

During the application of compression, a reporting of pain into the upper extremity toward the same side that the head is laterally flexed is positive. This indicates pressure on a nerve root, which can be correlated by the dermatomal distribution of the pain.

SPECIAL CONSIDERATIONS/COMMENTS

Precautions (and possibly avoidance) should be taken with compression of the vertebral area with a subject who has been diagnosed with conditions such as osteoarthritis, rheumatoid arthritis, osteoporosis, and spinal stenosis. The examiner should perform the vertebral artery test as a screen prior to administering this special test.

EVIDENCE

| | Rubinstein et al (2007) | Shabat et al (2011) |
|-----------------------------|-------------------------|------------------------|
| Study design | Systematic review | Cross-sectional |
| Conditions evaluated | Cervical radiculopathy | Cervical radiculopathy |
| Study number | 4 | |
| Sample size | | 257 |
| Reliability | Not evaluated | Not evaluated |
| Sensitivity | 50 to 100 | 95 |
| Specificity | 86 to 100 | 94 |

REFERENCES

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FORAMINAL DISTRACTION TEST

TEST POSITIONING

With the subject seated, the examiner places one hand under the subject's chin and the other hand around the occiput (Figure CS2-3).



Figure CS2-3.

ACTION

The examiner slowly distracts the subject's head from the trunk while the subject remains in a relaxed position.

POSITIVE FINDING

The finding is positive when existing complaints of pain decrease or disappear during the distraction. This indicates that a nerve root compression may exist while the subject sustains normal posture and/or positioning.

SPECIAL CONSIDERATIONS/COMMENTS

Distraction of the cervical area for the assessment of a nerve root impingement should not be performed on a subject who has vertebral instability. Any increase in pain may indicate muscular and/or ligamentous damage. The examiner should perform the Vertebral Artery Test as a screen prior to administering this special test.

EVIDENCE

| | Wainner and Gill (2000) | Rubinstein et al (2007) |
|-----------------------------|-------------------------|-------------------------|
| Study design | Literature review | Systematic review |
| Conditions evaluated | Cervical radiculopathy | Cervical radiculopathy |
| Study number | 2 | 2 |
| Reliability | Kappa = .5 | Not evaluated |
| Sensitivity | 40 | 44 |
| Specificity | 100 | 90 to 97 |

REFERENCES

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