

# Facet Disruption

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## History

5 year old female restrained backseat passenger with upper back pain, upper extremity pain and lower extremity paresthesia after car struck embankment.

## Diagnosis

Cervico-thoracic facet disruption

## Additional Clinical

Dural tear and bilateral facet capsular and ligamentous disruption at T1-T2 at surgery.

## Discussion

Bilateral interfacetal dislocation is a hyperflexion injury which occurs with little or no rotation. The pathophysiology includes complete disruption of the posterior ligament complex, the posterior longitudinal ligament, the intervertebral disc, usually the anterior longitudinal ligament and anterior dislocation of the articular masses.

Facet dislocation may be complete or incomplete. With incomplete dislocation the vertebra is displaced anteriorly by less than one-half of a vertebral body width. The posterior-inferior margins of the inferior facets of the dislocated vertebra come to rest on top of the superior articular processes of the subjacent vertebra.

Facet dislocation is an unstable injury and highly associated with cord injury.

## Findings

CT-1) Widened interspinous space at T1-T2, 2) Minimal anterior subluxation of T1 relative to T2, 3) bilateral facet subluxation.

MR-1) Interspinous and ligamenta flava disruption and edema, 2) partial cervical-thoracic cord disruption, 3) disc impression upon thecal sac at T1-T2 with disrupted annulus or posterior longitudinal ligament, 4) microtrabecular edema of the superior vertebral bodies of T2 through T5, 5) precervical soft tissue injury.

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