

Adjacent disc degeneration

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374 pt/494 fusion

31 yrs follow up

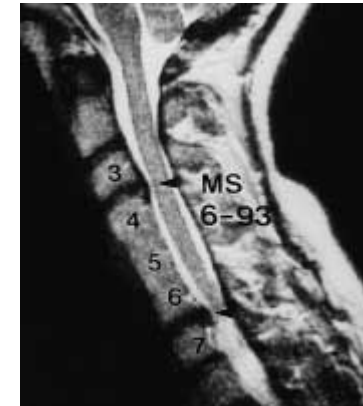
**Symptomatic adjacent-segment disease      Incidence of 2.9% per year during the 10 years after the operation. 25% at 10 years**

**The greatest risk was at the interspaces between the V and VI.**

**Contrary to our hypothesis, the risk of new disease at an adjacent level was significantly lower following a multilevel arthrodesis than it was following a single-level arthrodesis**

**A single-level arthrodesis involving the fifth or sixth cervical vertebra and preexisting radiographic evidence of degeneration at adjacent levels appear to be the greatest risk factors for new disease.**

- Therefore, we believe that all degenerated segments causing radiculopathy or myelopathy should be included in an anterior cervical arthrodesis.
- Although our findings suggest that symptomatic adjacent-segment disease is the result of progressive spondylosis, patients should be informed of the substantial possibility that new disease will develop at an adjacent level over the long term.



**Symptomatic adjacent-segment disease** as new clinical symptoms that persisted for two consecutive follow-up visits.

Although cervical spondylosis affects the entire cervical spine, the greatest arthritic changes develop between the fifth and sixth and between the sixth and seventh cervical vertebrae. Symptomatic adjacent segment disease also was most common at these levels.

Some patients who had had a single-level procedure may have had advanced spondylosis at these higher-risk adjacent levels that was not symptomatic and therefore was not addressed operatively. Symptomatic adjacent segment disease may have been less common after multilevel arthrodeses as these procedures usually included the higher-risk levels and ended adjacent to segments that were at lower risk for the development of new disease.

# Post-traumatic syringomyelia J Neurol

Neurosurg Psychiatry. 1996 Jan;60(1):61-7.

- **study of 449 patients with spinal cord injury.**
- 1987 and 31 December 1993 were prospectively analysed.  
clinically stable ( 3 years) Ten worsened--three refused operation, seven were operated on.
- Mean worsening time was 97 months.
- **Delay between appearance of the first symptoms of PTS and deterioration making surgery necessary may**
- be long (mean five years in the seven operated patients) underlining the need for regular tests. “
- mechanisms could explain cyst enlargement as surgical realignment of the spine resulted in a complete cyst collapse in two of the operated patients (normalisation of CSF flow? ). Cord compression, tense syrinx at the fracture site, and kyphosis seemed to be closely linked to the enlargement of the cyst with subsequent further neurological deterioration.