

Total disc replacement for chronic back pain in the presence of disc degeneration (2012)

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COCHRANE BACK REVIEW GROUP
The best evidence in back and neck pain care



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Overview of the study

Objectives

- To assess the effects of total disc replacement for chronic low-back pain in the presence of lumbar disc generation compared with other treatment options in terms of patient-centered improvement, motion preservation and adjacent segment degeneration

Methods

- Evidence current up to 22 December 2012
- Participants: Patients scheduled for surgery for chronic degenerative disc disease
- Intervention: Total disc replacement
- Outcomes measured
 - Primary outcomes: pain and pain medication usage, overall improvement, patient satisfaction, back-specific functional status, quality of life (QoL)
 - Secondary outcomes: motion segment mobility, general complications, general perioperative complications, surgical re-intervention, treatment specific complications

Results & Conclusion

- 40 studies included

Treatment	Evidence	Quality of evidence
Total disc replacement	- Improvement in back pain (VAS) and back specific function (Oswestry) in the disc replacement group compared to the fusion group - No difference in leg pain between the two groups	Low

⇒ Although total disc replacement seems to be slightly effective in treating low-back pain in the short term, no evidence exists for long-term effects of this treatment.

⇒ The differences between disc replacement and conventional fusion surgery were not clinically important with respect to short-term pain relief, disability and QoL.