

ProDisc-C device doesn't change facet joint pressures

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Local facet joint contact pressures are not significantly altered during sagittal bending after the implantation of a ProDisc-C device at the C5 to C6 level in cadaveric human cervical spines, according to a study published online Sept. 12 in *The Spine Journal*.

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Joel A. Bauman, M.D., from the University of Pennsylvania in Philadelphia, and colleagues conducted a biomechanical study using seven C2 to T1 osteoligamentous cadaveric cervical spines instrumented with a transducer to measure the C5 to C6 facet pressure profiles during physiological sagittal bending. Pressure was measured before and after

implantation of a ProDisc-C at the C5 to C6 level.

The researchers found that, following implantation, the mean C5 to C6 range of motion increased significantly, from 9.6 ± 5.1 degrees in the intact condition to 16.2 ± 3.6 degrees after implantation. During extension there was no significant difference in the facet contact pressure between the intact (64 ± 30 kPa) and implanted (44 ± 55 kPa) conditions, despite the changes in rotation. There was also no difference in facet pressure during flexion.

"Although implantation of a ProDisc-C arthroplasty device at the C5 to C6 level increases angular rotations, it does not significantly alter the local facet pressure at the index level in flexion or extension," the authors write. "Using a technique that preserves the capsular ligament, this study provides the first direct measurement of cervical [facet](#) pressure in a disc [arthroplasty](#) condition."

Several authors disclosed financial ties to the medical [device](#) industry.

More information: [Abstract](#)
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