

RISE[®]-L

FUSION SIMPLIFIED

Graft-to-Endplate Contact of RISE[®]-L Expandable Versus a Traditional Static Spacer

A Foam Block Vertebral Body Model and Cadaveric Segment Analysis

Objective:

To compare contact between the vertebral endplate and bone graft material packed within traditional static spacers versus RISE[®]-L expandable lateral interbody spacers.

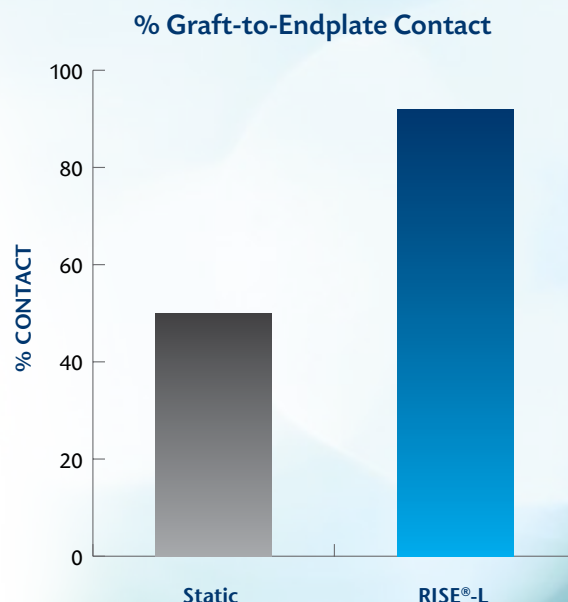
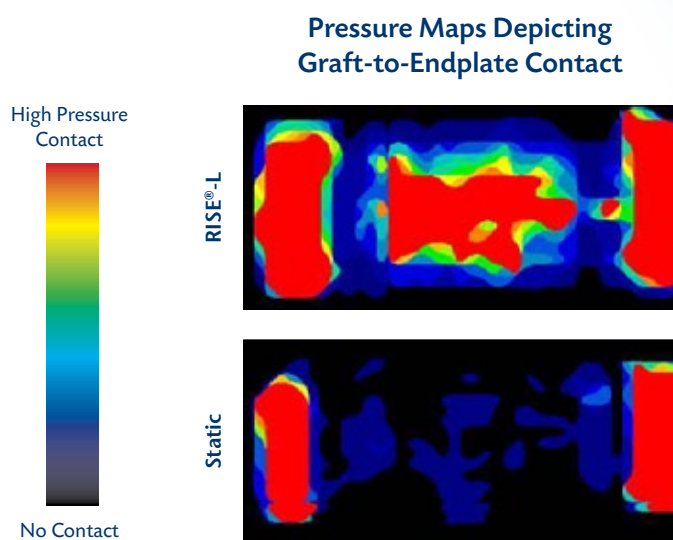
Method:

A standard lumbar single level bone model with concave endplates was used for testing. A static spacer was pre-packed with autogenous bone graft and placed in the model. RISE[®]-L was pre-packed at a minimized height, then expanded and backfilled with autogenous bone graft, and placed in the model. A physiological axial load was applied to each model. Contact pressure between graft material and simulated endplates was evaluated using a pressure sensor.

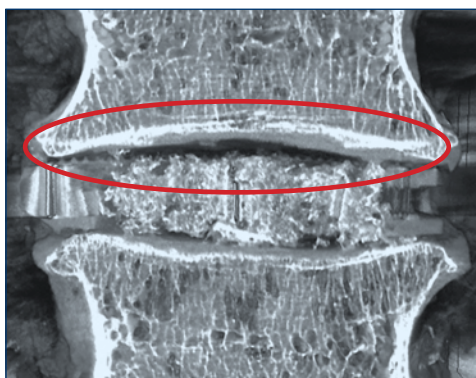
Contact area between graft material and endplates was visually assessed and compared in a single cadaveric motion segment using microCT scanning.



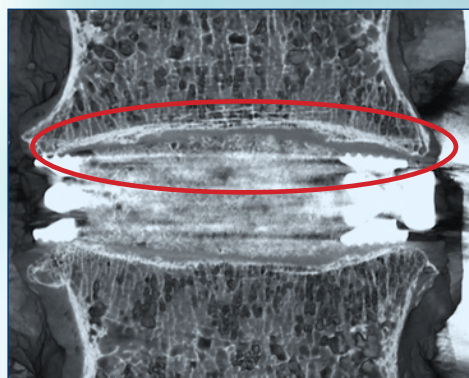
In situ graft delivery resulted in an **84% increase in bone graft-to-endplate contact** with RISE®-L compared to a static spacer.



MicroCT showed that backfilling **RISE®-L with autograft filled concavities** that are typically seen when using a static spacer.



Static pre-packed spacer resulted in graft voids between implant and endplate.



RISE®-L allows bone graft to be delivered *in situ* to fill endplate concavities.

CONCLUSION: When compared to a traditional pre-packed static implant, RISE®-L allows for more bone graft-to-endplate contact to optimize fusion potential.

EXPERIENCE RISE®-L IN ACTION