

## CLINICAL STUDY SUMMARY

# Transforaminal Lumbar Interbody Fusion with Expandable Interbody Device Provides Indirect Decompression through Significant Disc Height Restoration

Jonathon B Gentry, Son Le, Jessica R Riggleman, Samantha L Greeley, Leigh Ahrendtsen and Charles Ledonio.

*Journal of Spine* 8(4):440, 2019.

**OBJECTIVE:** The objective of this study was to quantify the radiographic outcomes of patients who underwent open transforaminal lumbar interbody fusion (O-TLIF) using a RISE® TLIF expandable lumbar interbody spacer.

**METHOD:** A single site, retrospective, institutional review board-exempt chart review was conducted on 68 consecutive patients who underwent O-TLIF at 1-2 contiguous level(s) using RISE® TLIF expandable lumbar interbody spacers. Radiographic outcomes were collected and compared at preoperative and postoperative timepoints up to 12 months.

### Lateral Radiographs



Preoperative



Immediate postop one-level  
O-TLIF using RISE® at L4-5

Radiographic outcomes demonstrated the following improvements from preop to 12 months postop:

**3.0mm**  
INCREASE

Mean Posterior Disc Height

**2.9mm**  
IMPROVED

Mean Neuroforaminal Height



**3.8mm**  
INCREASE

Mean Anterior Disc Height

- The average disc height increased 49% postoperatively, and was maintained without significant loss over 12 months.
- A pelvic incidence minus lumbar lordosis (PI-LL) of greater than 10° has been shown to be a predictor of severe disability\*. In this study, mean PI-LL was 8.1° at 12 months (P=0.035).
- There were no reported implant-related complications or subsidence at 12 months.

**CONCLUSION:** In the studied patient population, O-TLIF using RISE® TLIF expandable lumbar interbody spacer restored anterior and posterior disc height, and neuroforaminal height providing evidence of indirect decompression. Segmental and lumbar lordosis was maintained at 12 months.

\* Schwab et al. *Spine* (Phila Pa 1976) 38: E803-E812



Scan the QR code to download the article or visit [globusmedical.com/rise-gentry\\_study](http://globusmedical.com/rise-gentry_study)

Talk to your Globus Medical sales representative to learn more about our complete line of expandable devices.

GMSS61  
03.20 Rev A



**GLOBUS**  
MEDICAL