

#### CLINICAL STUDY SUMMARY

# Comparative Effectiveness of Expandable versus Static Interbody Spacers via MIS LLIF: A 2-Year Radiographic and Clinical Outcomes Study

Li, Y. M., Frisch, R. F., Huang, Z., Towner, J., Li, Y. I., Greeley, S. L., & Ledonio, C. (2019). Global Spine Journal. (Epub ahead of print) DOI: 10.1177/2192568219886278

**OBJECTIVE:** To compare the radiographic and clinical outcomes of expandable versus static interbody spacers following minimally invasive lateral lumbar interbody fusion (MIS LLIF).

**METHOD:** Sixty-two consecutive patients diagnosed with DDD underwent MIS LLIF using static or expandable spacers. 27 patients were treated with static spacers, and 35 with expandable spacers. Radiographic and clinical functional outcomes were collected.



**RESULTS:** Mean improvement in both VAS and ODI scores was significantly greater in the expandable group compared to the static group at 24 months by 63.8% and 89%, respectively. Implant subsidence was significantly greater in the static group (16.1%, 5/31 levels) compared to the expandable group (6.7%, 3/45 levels).

**CONCLUSION:** This study showed positive clinical and radiographic outcomes for patients who underwent MIS LLIF with expandable spacers compared to those with static spacers. Sagittal correction and pain relief was achieved and maintained through 24-month follow-up. Additionally, the expandable group had a lower subsidence rate than the static group.



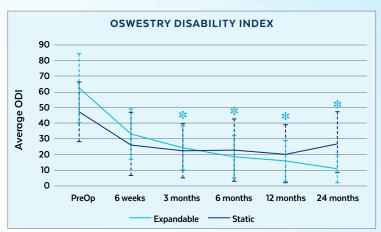
## At 24 months, patients treated with RISE-L compared to those treated with static spacers demonstrated the following:

### 63.8% Greater Improvement in VAS Back and Leg Pain Scores

# VAS BACK AND LEG PAIN 10 8 8 4 2 PreOp 6 weeks 3 months 6 months 12 months 24 months -2 Expandable Static

Significant decreases from baseline were achieved and maintained at 6 weeks, 3, 6, 12, and 24 months. However, an upward trend was observed in the static group, and a downward trend in the expandable group.

#### 89% Greater Improvement in ODI Scores



Significant decreases from baseline were achieved and maintained at 6 weeks, 3, 6, 12 and 24 months. An upward trend is observed in the static group, while a downward trend is observed in the expandable group.

#### LESS SUBSIDENCE

16.1% 5/31 levels

Static Group

**6.7%** 3/45 levels

Expandable Group





Preoperative radiographs



Postoperative radiographs of a 2-level MIS-LLIF at L3-L4 and L4-L5

**LATERAL** 



Scan the QR code for a copy of the 2-Year RISE®-L study!

