



Horizon Spine & Pain – Safe Lifting Guidelines for Spine Patients

Lifting Limits by Condition

Patient Condition	Max Load (General Guideline)	Key Notes
Healthy spine (no known pathology)	Body weight × 1.0–1.5	Prioritize proper form, use progressive loading
Mild disc degeneration	≤ 50% body weight	Avoid repetitive heavy axial loading
Moderate disc disease	≤ 25–30% body weight	Avoid flexion under load, limit fatigue
Severe disc disease	≤ 10–15% body weight	Prioritize isometrics and core stabilization
Post-op lumbar surgery (6+ months)	≤ 25% body weight initially	Physician clearance required before progressing
Spondylolisthesis or instability	Avoid loaded flexion	Emphasize neutral spine and stabilization exercises
Osteoporosis or compression fractures	Avoid heavy axial load	Prioritize balance, light resistance, and postural retraining

General Safe Lifting Rules

- Never lift to the point of fatigue
- Avoid lifting in heavy **flexion** or during **rotation**
- **Controlled tempo > heavier weights**

- Always emphasize **core engagement** and a **neutral spine**
 - Teach and reinforce proper **hip hinge** movement patterns early on
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Scientific References

1. McGill SM. *Ultimate Back Fitness and Performance*. 5th ed.
2. Cholewicki J, McGill SM. *Mechanical stability of the in vivo lumbar spine: implications for injury and chronic low back pain*. Clin Biomech. 1996.
3. Granata KP, Marras WS. *Relationship between spinal load factors and the high-risk probability of occupational low back disorders*. Ergonomics. 1995.
4. Videman T, et al. *The long-term effects of lifelong exercise on disc degeneration: The Twin Spine Study*. Spine. 2006.