



Horizon Spine & Pain

Core Strengthening Guide for Low Back Pain Prevention

These research-supported core exercises are designed to improve spinal stability and reduce the risk of low back pain. Perform 3–5 times per week, focusing on control and form.

1. Abdominal Bracing (Drawing-In Maneuver)

- Lie on your back with knees bent.
- Gently draw your belly button in toward your spine without holding your breath.
- Hold for 5–10 seconds.
- Repeat 10 times.

2. Bird Dog

- Begin on hands and knees.
- Extend one arm and the opposite leg, keeping your back flat.
- Hold for 5–10 seconds, then return to start.
- Repeat 10 times per side.

3. Dead Bug

- Lie on your back with arms and legs lifted in a tabletop position.
- Slowly lower one arm and the opposite leg toward the floor.
- Return to start position.
- Repeat 10 times per side.

4. Glute Bridge

- Lie on your back with knees bent and feet flat.
- Press through your heels to lift your hips, squeezing your glutes.
- Hold for 5–10 seconds at the top.
- Repeat 10–15 times.

5. Side Plank (Modified or Full)

- Lie on your side, propping yourself on your forearm.
- Keep knees bent for a modified version or extend legs for more challenge.
- Hold for 10–30 seconds.
- Repeat 3 times per side.

6. Clamshells

- Lie on your side with hips and knees bent.
- Keep feet together and open the top knee.
- Control the movement—do not rotate your torso.
- Repeat 15 times per side.

Important:

Stop any exercise that causes sharp, shooting, or worsening pain. Move with control and avoid compensating with other muscle groups.

References:

- Akuthota V et al., *Current Sports Medicine Reports*, 2008
- McGill SM. *Low Back Disorders*, 2015
- Hides JA et al., *Spine*, 2001
- Hayden JA et al., *Cochrane Database Syst Rev*, 2005