

# DISCOGENIC LOW BACK PAIN

Learn to control your low back pain before it controls you



### HOW TO USE THIS GUIDE

This guide is designed to help you better manage your discogenic low back pain by explaining the mechanisms that cause it in the first place. The information provided will give you a blueprint to start moving better, get stronger, and prevent future episodes. On its own, this guide is not enough to resolve your low back pain completely. Use this information early on to aid in your recovery and incorporate the movement strategies into your everyday life.

### DISC ANATOMY

The intervertebral disc acts as a cushion and sits between each one of your spinal vertebrae and assists with weight-bearing and flexibility of the spine. The disc has three major components: the nucleus, annulus, and the vertebral end-plates above and below each disc. The nucleus has a gel-like consistency, similar to thick egg whites. The annulus consists of multiple layers of collagen fibers and is oriented similarly to layers of an onion around the nucleus. These fibers connect the disc to the spinal vertebrae above and below.





The annulus and the nucleus work together to support compressive loads on the spine during bending and twisting movements. Together, the disc and annulus are very well designed to manage the light to moderate loading that we experience in our everyday lives. Regular loading of the disc actually helps stimulate healthy bone growth in the spine and maintain disc health. But too much loading can eventually lead to tissue breakdown over time and result in a painful injured disc.





## WHAT CAUSES A DISC INJURY?

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# WHAT ARE YOUR TREATMENT OPTIONS?

Recent research shows comparable outcomes for surgical versus conservative treatment of disc injuries and in the acute stage of injury, movement-based approaches are recommended. Conservative treatment means a combination of stretches, rehabilitation exercises and manual therapies such as massage and joint manipulation. For chronic or more severe disc injuries, conservative treatments may not be as effective and surgical intervention may be recommended by your Chiropractor or Health Care Professiona.





# HOW CAN WE HELP YOU?

Our Chiropractors will guide you through the phases of treatment and help you resolve your pain while teaching you strategies to prevent it from coming back in the future. Education is a big part of the treatment process because understanding what causes your pain is essential to knowing how to keep history from repeating itself.

#### At our clinic, the main goals of your treatment are as follows:

 Calm inflammation and pain sensitivity through activity modification and movement-based therapies.



Correct joint mobility and muscle imbalances that may be contributing to your pain.

**3** Build muscular strength and endurance to prevent future episodes.



## WHAT CAN YOU DO ON YOUR OWN?

#### **DO LESS OF THIS**

#### **DO MORE OF THIS**

- Long interrupted periods of sitting especially if slouching through the lumbar spine
- Repetitive lifting, twisting, or bending through the lumbar spine
- Staying sedentary and not taking active part in your recovery
- Eating fast or inflammatory foods or drinking alcohol
- Staying up late and not getting adequate rest

- Break up sitting with frequent movement breaks every 20-30min
- If you must sit, use a lumbar support like a rolled up towel and wedge it between the base of your lumbar spine and the chair
- Hinge with your hips rather than your low back to avoid irritating the disc
- Practice prescribed rehabilitation
   exercises recommended by your healthcare provider to accelerate recovery and prevent flare-ups
- Stay hydrated, avoid fast or inflammatory foods, make sleep a priority



# **MOVEMENT STRATEGIES**

#### **Pelvic Tilts**

This stretch helps mobilize the joints and muscles in your lower back to help
ease muscle spasms and begin to restore healthy range of motion in the lumbar spine.

- Imagine your pelvis is like a bucket of water, spill water out of front of your pelvis by arching your back and tilting your pelvis forward.
- Then reverse the motion by tucking your tailbone underneath your bum to spill water out the back of your pelvis.
- Slowly repeat motion back and forth as needed.

This should be a non-painful mobilization stretch. Some mild discomfort
 while performing this stretch is normal, especially in the acute stage of injury.

DO NOT force your back into ranges of motion it is not ready to go into yet.







### **Hip Hinge**

Your low back is not designed to handle repetitive hinging and bending, but
 your hips are! Learning this movement strategy is crucial to help manage your current low back pain and to help prevent future flare-ups.

Pretend like you have a board strapped to your back and as you bend
 forward, focus that movement through your hips rather than your back. A slight knee bend in this position is okay, as long as your low back remains neutral throughout the movement.

Use this movement strategy when getting up and down from a chair,
bending forward to pick something up, or when leaning over a counter like when you're washing dishes.





#### Sumo Deadlift

- Now that you know how to hip hinge, simply bend the knees a bit more while keeping your low back neutral to lift something up off of the ground.
- During the hip hinge and lifting process, be sure to engage your core muscles to help stabilize your low back.
- It is important that you keep your upper body and shoulders engaged
   through this movement, so imagine you have a big Sunday newspaper under each armpit and pinch down to keep it in place before you lift the weight off the ground.
- Lift with your legs, hinge through the hips, and squeeze your glutes at the top of the motion to help stabilize your low back.
- Reverse the motion to safely return the weight to the ground.





## **Frequently Asked Questions**



There tends to be more pressure exerted on the disc when sitting compared to standing. Standing is generally safe for the disc in the absence of an acute injury and as long as there is no repetitive bending or twisting through the spine. Sitting has not been shown to be enough to initiate an injury to the disc. But once the process has started, sitting can become painful and irritable.

# My low back pain is always worse in the morning. Is this normal?

As we lay down to sleep at night, gravity isn't compressing our spine like it is when standing or sitting. So as we are sleeping, our discs reabsorb water and are a little larger by the time we wake up in the morning leading to increased sensitivity or stiffness in the low back. This excess water will be flushed out once you get up and start moving.

# How can something like bending down to put on my shoes cause a disc injury?

The injury process likely already started before the moment you experienced pain for the first time. Only the most outer layers of the disc are innervated by the pain receptors of our nervous system, therefore we don't experience pain until the injury process is farther along. Remember, this is a cumulative stress injury and can sometimes take months or years to manifest.



#### I've had back pain that comes and goes for years, is this something that I am going to have to live with for the rest of my life?

Not necessarily. Disc-related low back pain is actually very manageable in most cases with proper movement strategies, strength training, and knowing what the warning signs are to prevent little problems in the back from becoming big problems. We'll teach all of this to you.

#### A disc bulge showed up on my MRI but I'm not having any back pain. What's the deal?

One research study looking at over 3,000 imaging results (CT scan and MRI) of non-symptomatic individuals found that 37% of people in their 20's and 96% of people in their 80's had signs of disc degeneration without pain! In the same study, 29% of people in their 20's and 43% of people in their 80's showed signs of disc herniation but had no pain. Degenerative changes in the spine are part of normal aging and are not associated with pain.





# Are you ready to take back control of your pain?

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