

# 8 LOWER BACK PAIN



## What is it?

Lower back pain (LBP) is just as it sounds: pain in the lower region of your back. It may be general and felt across the entire region of your lower back, or specific to one side or location. Listed as one of the most prevalent musculoskeletal disorders in North America, it has been suggested to affect up to 84% of the population at some point during their life. Due to the fact that specific diagnoses are absent in approximately 85% of cases, multiple treatment modalities are often required. Symptoms may range from a constant dull ache to a sharp or stabbing pain in the lower portion of your back. Onset of symptoms may result from heavy lifting, poor mechanics, work related activities, stress, posture, extended periods of sitting or standing, chronic disease, excess body weight, or even your workout routine.

LBP can be classified into two categories, including chronic, which is any ache or pain lasting longer than three months, and acute, which is pain that begins following an event, such as lifting a heavy object. If you are experiencing severe LBP following an acute event, a trip to the hospital may be best to rule out any major damage. If your LBP has been a constant hindrance to your activities of daily living, your family physician is well equipped to start your road to recovery.

## What do people experience?

Symptoms may be specific to one location or across the entire region of your lower back and can include:

- Sharp pain or a dull ache
- Muscular tightness
- Difficulty standing up from a seated position
- Discomfort bending over
- Discomfort while walking or performing activities of daily living
- ‘Flare ups’ or periods of heightened symptoms
- Discomfort while sleeping
- Stiffness upon waking in the morning
- Pain or discomfort during and after extended periods of sitting

## Risk factors & how to avoid discomfort

Risk factors for discomfort include:

- Heavy lifting
- Activities that require bending, twisting or reaching
- Poor fitting or worn out footwear
- High impact and high volume or intensity of exercise during periods of heightened symptoms
- Being overweight or obese may increase the strain on the joints and muscles in your lower back
- Stress and anxiety can play a role in heightening symptoms

## What are my options for treatment? Who else can help?

Just as there is more than one way to get lower back pain, there is certainly more than one way to treat it. The treatment(s) that are appropriate for you depend upon a number of factors including your symptoms, job, daily activity requirements, age, health status, body weight, etc. Your family physician typically serves as the first line of defense for treatment and will be able assist you with medications and lifestyle alterations if appropriate, or refer you to the right type of medical professional for further care.

Physiotherapists and kinesiologists may be appropriate to assist with exercises, stretches or lifestyle alterations; pedorthists may be appropriate to control motions of the foot that may impact alignment or muscular strain; occupational therapists can help with life style modifications and assistive devices; chiropractors can help with alignment issues or imbalances; dieticians may assist with weight and diet management; kinesiologists may assist with ergonomics (ensuring living environments and work stations are conducive to your posture and mechanics). As you can see, there are as many ways to treat LBP as there are to get it. It is our hope the information provided here will be enough to start your road to recovery!

## **Staying active with pain**

Daily discomfort can be managed and in many cases improved with moderate intensity, low-impact exercise. During times of heightened symptoms, low intensity range of motion exercises and stretches may help relieve muscular tightness. High impact and intense exercise should be avoided until symptoms are fully under control or until your physiotherapist or kinesiologist suggests it is ok for you to do so. Appropriate warm up and cool down should always be performed before and after exercise to ensure optimal muscle function. If you are new to exercise or have questions regarding appropriate exercise selection, consult with your kinesiologist or physiotherapist.

Appropriate footwear with adequate support and cushion is important during periods of exercise. Consult with your pedorthist regarding footwear that is appropriate for your foot type and selected activities.

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## **SORE BACK? IT COULD BE YOUR FEET!**

### **How can SoleScience help you feel better?**

Your SoleScience Pedorthist will create an individualized treatment plan that suits your specific needs, goals, and symptoms. We will work with you to determine not only what we need to do to address your current concerns, but also to prevent future problems.

Your pedorthist will complete a thorough and comprehensive foot examination at your initial appointment. A comprehensive follow-up exam will ensure that you are meeting your goals and allow your pedorthist to reassess your treatment plan (as necessary).

The pedorthists at SoleScience will work with you to get you feeling better immediately following your first visit. While you are waiting for your custom foot orthoses to be manufactured (typically 3-5 days), your pedorthist will work with you to improve comfort, both in and out of the house. Whether you know it or not, both the shoes and activities you select may be your best friend or your worst enemy!

## **Our take on the need for custom foot orthoses**

Custom foot orthoses are appropriate for a variety of conditions, and LBP is no exception! With support found in the current medical literature, custom foot orthoses have been shown to significantly improve pain and disability scores. Your foot type and movement patterns are almost as unique as your fingerprint. Depending on your specific foot mechanics, custom foot orthoses can be used to control motions of the foot that may be transferring up the leg and to the lower back. Large amounts of movement at the foot are commonly transferred into rotational movement of the leg via the joint beneath your ankle. Rotation of the leg is transferred up to the knee, potentially leading to knee pain, or can pass through the knee up to the hip, causing the muscles in the lower back to work over-time in order to stabilize. If this is the case, custom foot orthoses may be used to control the movements of the foot and reduce this cascade affect up the leg to the hip and lower back.

Custom foot orthoses may also be used to reduce impact forces while walking. When the joints in the foot have reduced ranges of movement, the force of your heel striking the ground may be transferred through your foot and up your leg to the hip and lower back. This pattern is more typical of people with high arches and a rigid foot structure. Feet with larger amounts of mobility have a better ability to absorb the forces associated with walking, running and jumping. Through cushioning and evenly distributing the pressure beneath your feet, custom foot orthoses may be used to reduce some of the impact forces associated with walking.

## **Custom vs. OTS**

OTS or off-the-shelf orthotics are pre-fabricated devices that can be fit in to your shoes right from the shelf. This type of orthotic is typically heat moldable, allowing for a degree of immediate customization. Truly custom-made foot orthoses are differentiated as they are designed specifically around a 3D model of your foot. This type of orthotic can be completely tailored to suit your needs. Depending on

your symptoms and mechanics, OTS devices may be a great first step. In cases where the support and cushion offered by the OTS device is enough to address the concern, it may be as far as we need to go. If the OTS device provides some relief but doesn't quite offer enough support, or if it does not match well to your foot type, custom orthoses may provide the most comfort and relief of symptoms.

## **Footwear recommendations**

Appropriate footwear selection is important for day-to-day comfort and depends on your specific mechanics. Generally speaking, footwear with ample cushion and support work well while managing LBP symptoms. No matter which shoe you select, proper fit is vital. Length, width, depth, and heel height are important considerations. Consult with your pedorthist for recommendations specific to your foot type and intended use.