

Naturally Relieve Your Back Pain

Getting to the Root of the Problem
5 Simple Exercises to Stop Lower Back Pain

Easy to Use Desktop
or
Mobile Versions



CORA
Physical Therapy
ebooks

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The information in this ebook is not intended to diagnose any medical conditions or replace your health care provider. If you experience any pain or difficulty with the exercises or tips in this ebook, stop immediately & consult your physical therapist.

You Are Not Alone.



Are you one of the 31 million Americans who experience lower back pain at any given time? Do you find your back stiff and achy in the morning when you get out of bed? Are you careful about bending, reaching or lifting because your back might "seize up"?

Lower back pain is a common condition with such a high prevalence rate, you're more likely to experience back pain than not. Whether your back is hurting for the first time, you're having a flare up, or you want to be one of the 20% of people who never experience back pain, keep reading to find out how you can take back control.

Many people turn to over-the-counter medications, see their doctor for prescription medications or injections, and have expensive MRI's and X-rays, without achieving any long-lasting results. That's because these approaches focus on the symptoms, not the root cause of the problem. As physical therapists, we get results because we are movement specialists and movement is the medicine your back needs.

Our goal is to help you reduce discomfort and restore full range of motion so that you can get back to participating in the activities you love – pain free! Period.

Getting to the Root of the Problem

Imaging Does NOT Equal Pain!

The normal process of aging often brings with it an increase in aches, pains, and overall stiffness of the neck and back. Many people believe that this is an inevitable consequence of getting older, but aging doesn't have to mean chronic back pain, and expensive scans don't offer a solution for your pain! There are three problems with that concept:

1. Just because something shows up on a scan does not make it the source of your pain.
2. There are some problems, like SI joint dysfunction, that these scans can't detect but they also pick up on every normal sign of wear and tear like a close up of the wrinkles on someone's face.
3. An "age-related" or "degenerative" issue does not make it abnormal.

Studies have shown that people with no pain who have MRI's show signs of degeneration. Why? As we age, the condition of your spine changes due to genetic predisposition and our physical environment which is a normal part of the aging process. Like any other part of the body, the back is subjected to everyday stresses that wear down its structures over time. It's possible to be pain free despite "wear and tear."

Also, if doctors work in reverse and try to diagnose lower back pain from MRI findings, they can't reliably identify who has pain and who doesn't based ONLY on scans. Proof positive: a study had someone with lower back pain and radiating leg pain go for MRI's at 10 different facilities. That person ended up receiving 10 different interpretations for the cause of their symptoms!

Fear NOT. Restoring your normal function can be simple + painless.

Scans certainly have their place diagnosing serious conditions, such as cauda equina syndrome or spinal metastases. Your physical therapist is trained to pick up on the signs and symptoms that indicate you need further medical assessment by your physician and can demonstrate tailored exercises to effectively treat your problem areas.

Getting to the Root of the Problem

Understanding My Pain

Now that we have established that scans can only identify structural changes and not necessarily what is creating your pain, you're probably wondering, "How can a person with a normal MRI be in severe pain while someone with degenerative changes or disc bulges be pain free?" or "How can two people with the same imaging report experience such different symptoms?"

In the health care field, these questions are answered with what's called a "biopsychosocial model" that takes into account physical changes as well as your genetic make-up, thoughts, beliefs, past history, and social experiences. Looking at pain through this lens helps to make sense of why pain is perceived differently by each individual. Understanding that pain is multi-factorial and based on more than the extent of tissue damage is critical in overcoming it.

An important distinction to make is the difference between pain threshold and pain experience. Your **pain threshold** is the amount of stimulation your tissues need to send alarm signals to your brain. Factors such as lack of sleep and chronic pain can lower the threshold.

Your **pain experience** is how you interpret those alarm signals as pain. Factors such as past experiences, expectations, and distress can alter a person's pain experience.

This means that in either instance the same alarm signal can be interpreted differently by two different people. The best way to achieve better outcomes is by treating your body with respect, understanding its unique needs and determining the right treatment approach for you.



Getting to the Root of the Problem

No games. No guesswork.

Finally, let's answer the question, ***"How do I get to the root of my problem?"*** We're glad you asked because there is an important distinction between making your pain go away and making the thing that caused your pain go away.

To identify where your pain is coming from, physical therapists perform a series of active and passive movement tests ranging from general range of motion tests to specialized tests. The goal of these tests is to both identify dysfunction and to provoke your pain. While recreating your symptoms might sound unpleasant, always remember:

"If your pain is reproducible, it's reducible!"

For some people with back pain, their pain might be coming from erector spinae muscle spasms. Often with traditional treatment, the assessment process stops after the erector spinae muscles are identified as the tissue causing pain. Treatment then focuses on getting the erector spinae muscles to relax or to mask the pain. What's missing is an assessment to identify the cause of pain - "What is causing your erector spinae muscles to spasm?"

Your physical therapist should also take you through a series of posture and movement assessments. This is equivalent to not just clearing a log jam but walking up the river and figuring out where the logs are coming from. For example, your erector spinae muscles might spasm every time you twist because your deep stabilizer muscles aren't turning on to help. If this is the case, treatment should actually target your deep stabilizer muscles to turn on, not just getting your painfully spasming erector spinae muscles to relax.

Managing Lower Back Pain with Physical Therapy

Protect Your Spine with Better Posture

Gravity is essential for bone health and the reason why good posture is so important. Do you sit for long periods at work, at home, or in the car? Do you find yourself slouching during the day? Unless the segments of your body are stacked neatly on top of each other, your body will have to fight the force of gravity from pulling you down. This can strain your muscles, ligaments, tendons, and connective tissues, causing weakness, stiffness, and pain. On the flip side, there are postures that allow for gravity to actually contribute to the health of your spine and leg bones.

Often people wonder, "Do I have to stay in good posture all the time?" The answer is NO! While it's best to stay in an efficient posture most of the time, it's still okay to move outside of that range. Our bodies are made to do all sorts of movements and we don't want to limit that with a single rigid posture. Just don't stay in positions that test the limits of your body all the time and know how to come back to a more efficient posture.

Good news is there are numerous tips and tricks you can do each day that will help maintain your spine's flexibility and wellbeing as you age!



5 Tips for Work

The vast majority of people spend most of the day sitting, usually in front of a computer. If you're spending 8 hours or more sitting each day, then you'll want to be as efficient and comfortable as possible. Adapt your surroundings to you, not the other way around!

And even if you can't block out enough time for a full workout, there are ways to incorporate more activity into your workday. Remember, the best thing you can do for your back is to get up every 30 minutes and go for a little walk, even just a circle around your chair. Your back was built to move, so if a lot of your pain is associated with stiffness, then remember what experts everywhere always say, 'Move it or lose it!' Here are some more tips to help keep your back in shape:

1. The curve of your chair should fill the curve of your lower back.
2. Rest your elbows around 90° with wrists slightly lower and a tennis ball-width between your elbows and torso.
(Hint: keep your torso close to the edge of the desk)
3. When you look straight ahead, you should be looking at the top third of your screen. Never work looking up!
4. If you use two monitors, either keep the main one in front of you with the secondary monitor angled off one side, or to use both equally, angle them like a book. Leaving a gap between monitors forces you to repetitively turn your head instead of scanning with your eyes. Keep your monitors arms-length away so you can glance most of both screens without excessively turning your head.
5. Change your leg position frequently and always position yourself in relation to your keyboard and not the floor. If your feet are no longer firmly on the floor after your adjustments, find a footstool to take the weight of your legs.



Protect Your Spine with Better Hip Flexibility & Core Muscle Activation

Your spine relies heavily on the flexibility of your hip joints and pelvis along with the strength of your core. The majority of joint movement when you squat or bend should be coming from your ball and socket joints (hips). If your large hip joints, built to withstand up to 15 times your body weight, lose their flexibility, then this movement has to come from the little vertebral joints in your back. Additionally, strengthening your abdominals and back muscles with a regular core workout that includes stability, as well as flexion and extension stretches are known to protect your spine.

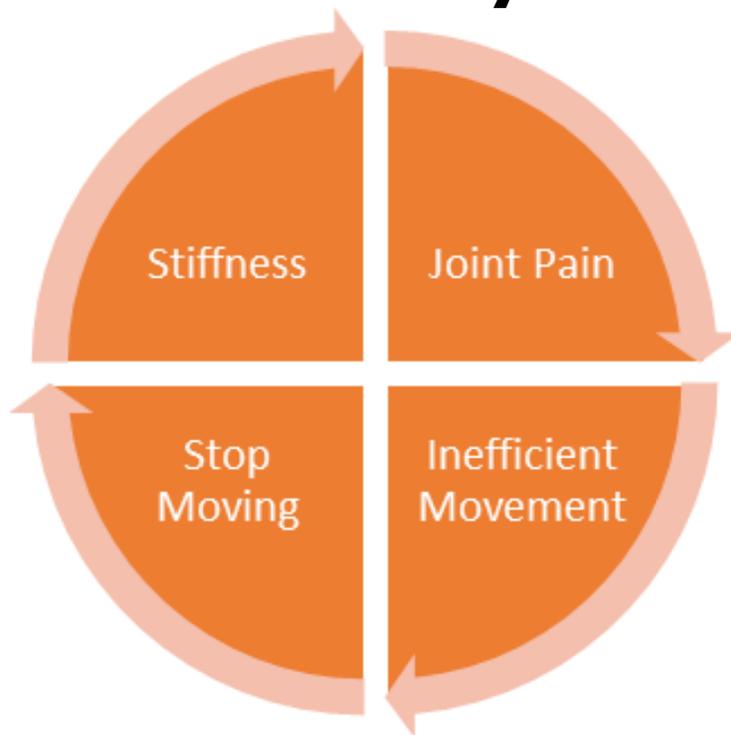
The next section outlines specific exercises you can do at home to maintain or regain your hip flexibility, as well as your hip strength, motor control, and core muscle activation. There are a variety of causes for tight hips including decreased joint space and excessive sitting shortening your psoas (a deep-seated core muscle connecting the lumbar vertebrae to the femur) and hamstring muscles. If you struggle with any of the following exercises, then poor hip flexibility is likely contributing to your back pain.



Protect Your Spine with Exercises

Bodies were made to move, including your spine! Even cardiovascular exercise like a brisk walk can be effective for reducing lower back pain. This literally means, just get moving! For those who've been dealing with this for a long time, you might be a little stiff and sore to start but you can begin breaking the pain cycle by remembering that "Hurt does not equal harm."

The Pain Cycle



If you experience pain during an exercise, it does not necessarily mean you are causing any structural damage to your tissues or joints. The best guideline to follow is the "Not Worse Rule." This rule uses the 0-10 rating scale with 0 being no pain and 10 being the worst pain imaginable. While exercising, pain levels are safe to increase 2 points beyond your usual pain, but if your pain does increase during an exercise, it should be no worse 20-30 minutes after you complete the exercise. If you do experience pain outside of these parameters, it still does not mean that anything was damaged. It just means that your body is not ready to withstand that exercise intensity and the exercise needs to be modified by a professional.

Thomas Stretch

Find a high surface such as a bed or kitchen counter that you can perch your bottom on. Grab one knee and slowly lie down onto your back. Let the other leg hang down and slowly bend and straighten that knee for 30 seconds. This will help to lengthen your psoas muscle which often becomes shortened when sitting for long periods. Swap your legs by either staying on your back and pulling the other leg up or by coming back up to standing. Repeat as many times as desired. This should be a pain-relieving exercise.



Ballerina

Lay face down with a pillow under your stomach. Activate your core muscles, drawing your belly button towards your spine and lifting one hip slightly off the floor. Maintain this lift as you raise the rest of your leg towards the ceiling. Ensure your hip doesn't drop down towards the floor and your lower back is not arching. The aim of this exercise is to activate your multifidi, the small stabilizer muscles of your back. Complete 3x10 slowly on each leg. Progress towards holds starting at 10x5 seconds.



Abdominal Series

"Push, cross, pull, push" - a core activation sequence



Lay on your back and bring one leg at a time to tabletop position - hips and knees at 90° with toes up. There are four parts to this exercise held for 30 seconds each. Progress towards completing all four parts in a row without resting in between.



The first position is called "push." With one hand on each mid-thigh, slowly attempt to push your legs up and away while your core resists your legs from moving. Activating your core muscles like this practices initiation and creates strength. Hold this for 30 seconds. If you are shaking, continue to hold until the shaking subsides, which will indicate you have achieved core activation.

The next position is called "cross." Cross your arms and push the inside of your knees up and diagonally away in the same manner as above. Hold for 30 seconds.

The third position is called "pull." Grasp the backs of your knees and pull them towards your chest. Instead of resisting by pushing your knees away, keep your



knees where they are and think of uncurling your tailbone. This position should be the least challenging and held for 30 seconds.



Finish with 30 seconds of the "push" position.

Bridges

Lay on your back with your feet flat on the floor. Activate your core muscles without curling your pelvis. Press your feet into the floor and feel your knees move forward over your arches as you lift your pelvis towards the ceiling. Squeeze your bottom together when you get to the top and hold for three seconds. Slowly lower back down to the floor and repeat 3x10. The aim of this exercise is to activate your glute and hamstring muscles while also requiring your psoas muscle to lengthen. A lot of back pain sufferers find this exercise pain relieving and will sometimes do fewer reps but with longer holds up to 30 seconds. Explore the hip height that feels good for your body.



Bobbing Bird

Find a long straight rod such as a broomstick or an umbrella. Keep the rod against your back using the palm of one hand near your head and the back of the other hand near your bottom. Your head, your spine between your shoulder blades, and your sacrum should be touching the rod at all times. The purpose of this exercise is not to stabilize your trunk, but to take away movement from your back and place it at your hips. Keep a slight bend in your knees as you hinge forward at your hips, keeping all points of contact with the rod. Perform 3x10 and when brushing your teeth.



Achieve Quick & Natural Healing with Physical Therapy

Physical therapy is effective when it addresses the three pillars of human movement. These are Mechanical Freedom, Neuromuscular Integration, and Motor Control. No other type of health care practitioner addresses all three of these components, nor do all physical therapists.

To achieve successful and lasting back pain relief, ensure your physical therapist will be addressing all three of these components. At CORA, we start by ensuring that your back and leg muscles, tendons, vertebral joints, and connective tissues are all free to move the way they were designed to move, with the ability to lengthen, shorten, and glide.

Next, your body needs re-training to actually use that regained freedom of movement, otherwise you'll just keep using the motor patterns you got in the habit of using while you were in pain. Neuromuscular integration refers to muscle initiation, strength, and endurance. All three components are necessary through the entire range of a joint's motion for normal human movement. Many back pain sufferers do core strengthening exercises but do not carry over that good strength to their daily activities outside of the gym or treatment table, and we can help.



Achieve Quick & Natural Healing with Physical Therapy

Finally, once your joints are free to move and your muscles are activating through their full range of motion, you need to create actual movement! Efficient movement is created by coordinating the right muscles to fire at the right time and the right amount for two purposes: there should be a balance between muscles meant to **stabilize** and muscles meant to create **motion**.

Often what happens with back pain is that the muscles meant to stabilize "shut off" and the muscles meant to create motion try to do the job of a stabilizer as well as a mover, which they are not built to do. Stabilizer muscles "shut off" when they are not needed, such as when you are sitting or lying down on a supportive surface that holds you in a stable position.

Have you ever had your back "seize up" or experienced a "back spasm" like in the earlier example about getting to the root of the problem? It's painful and often is the result of your erector spinae muscles (meant to create back extension movement) trying to do the work of your multifidus muscles (back stabilizers). That's why doing exercises, such as the Ballerina, to get your multifidus muscles firing on all cylinders is a great way to make sure you feel ready to jump with joy – pain free!

To hear more about the CORA method, have your lingering questions answered, or speak to one of our physical therapists about getting your life back, schedule a Complimentary Screen!



About CORA Physical Therapy

Getting Better Done Better

CORA Physical Therapy is the leader in outpatient physical therapy with more than 175 locations across the Southeast. Here, patients with orthopedic problems, work-related injuries, sports injuries and various neuromuscular and neurological conditions are always treated right because, at CORA, everyone is welcome. Everyone is respected. And everyone is supported to achieve success.

Call Today to Schedule Your Complimentary Screening!

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