



SCIATICA & BACK PAIN COURSE



PAINFREE
FITNESS

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Module 1

Sciatica & Back Pain Overview: Your First Steps On The Road To Recovery.

One

Getting Started: What you will learn in each section.

Let me start off by saying; don't get too caught up with whether you have Sciatica OR Back Pain, or Both. Pain at the back and radiating pain down the leg (Sciatica) entail a similar treatment approach, which we thoroughly provide in this course.

Step 1: Sciatica & Back Pain Overview

This first module is all about taking the first step on the Road To Recovery. You can't do that if you don't understand why you have Sciatica and/or Back Pain. Building this foundation will help you determine your next move. Whether that is diving into your transformation or scheduling an urgent medical appointment.

Step 2: Stop the Pain

When initiating a rehabilitation program the goal is not more exercise. We want to put the fire out, not ignite it. People mistakenly fall into one of two extremes, the "no pain, no gain" group or the "hurt equals harm" group. We

are going to introduce you to the concept of Pacing so you know when to push and when to back off in an effort to prevent repeated pain flare ups.

We will also begin to introduce exercises that are wonderful for pain reduction, while helping you understand what “good” low back posture actually looks like and how you can fine-tune this position to prevent pain on a daily basis.

Step 3: Living Without Pain

This section is all about teaching you how to adopt standing and sitting postures that don't cause pain, and how to move throughout the day to prevent pain. Small tweaks in how you position yourself combined with quality spine healthy movement can make all the difference.

Step 4: Preventing Future Pain

The fear that pain will return is always at the back of our minds. Pain is inevitable and at this point you understand how to stop pain in its tracks when it does return. The exercises introduced in this section will not only help with pain relief, but they will also help make you more resilient to injury. You will begin to strengthen your back and create flexibility exactly where you want it.

Two

Reasons to see your doctor IMMEDIATELY!

Recognizing "Red Flags"

*Red flags warrant a face-to-face visit with a medical doctor. It is crucial that you know what signs and symptoms are considered red flags.

The presence of red flags does not mean you won't benefit from this course. It just means that you need to seek more urgent medical care first before engaging in this program.

Red Flags include any one of the following:

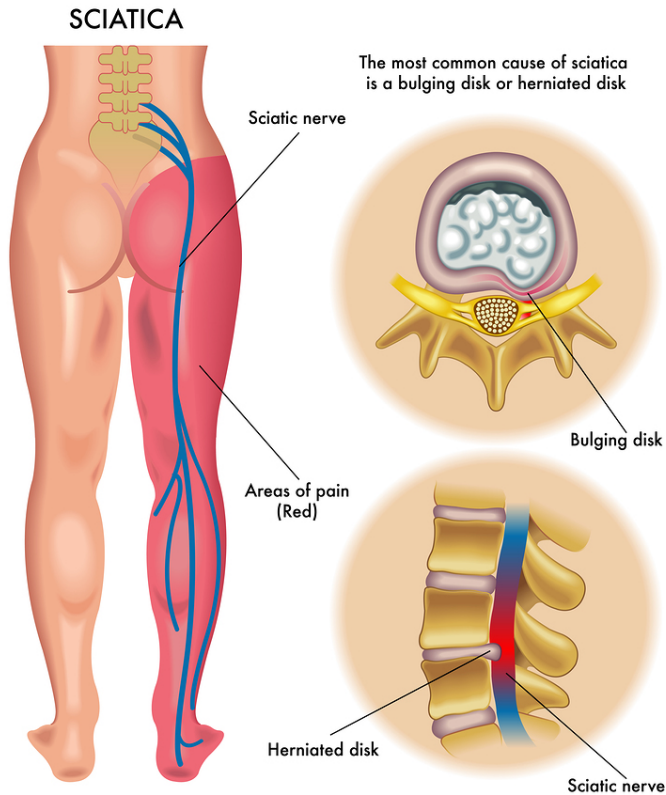
- **History of cancer, unexplained weight loss and/or unrelenting pain that does not change over the course of 24 hours despite adopting a resting position.** This includes progressively worsening and constant night pain. If you are unable to find any position that completely takes your pain away you need to see a medical provider.
- **Back injury following a traumatic accident**
- **Onset of Bowel/Bladder Incontinence or Numbness in Saddle Region** [if this symptom begins following trauma see a medical provider immediately]
- **Progressive neurological deterioration** [numbness, weakness, muscle atrophy]

- **Systemic Illness and back pain with a fever** [The concern here would be a possible infection that made its way to the spine through the blood stream].

Disclaimer: *The information provided in this online course is not intended to provide a diagnosis or substitute for medical advice. By attempting any of the exercises or recommendations in this course you do so at your own risk. We make no representations, guarantees or warranties that the information or exercises in this course are appropriate for you or will result in improvement of your medical condition or function.*

Three

What Is Sciatica?



Sciatica is a term used to describe pain anywhere along the sciatic nerve. People commonly complain of pain in the back part or outer part of their thigh (glutes, hamstrings and Iliotibial Band) and calf. In some cases pain may be felt in the bottom of the foot and toes.

Sciatica is sometimes referred to as radicular pain since the pain generally “radiates” down the leg.

- Pain is commonly described as a shooting, burning, stinging or numbing sensation in one or both legs.
- Pain is sometimes felt with sneezing, coughing and straining.
- People will commonly report increased pain with sitting as well.
- In some cases, weakness or numbness in one or both of your limbs may appear. Weakness in the ankle or leg will often cause your foot to drag or slap the ground while walking. This would be a reason to see a Medical Doctor more urgently, preferably an Orthopedic Physician (you may need to ask your Primary Care Doctor for a referral).

**Despite this weakness you will still benefit greatly from this course for pain resolution, improvements in strength and to diminish further injury to your back.*

Quick Self Test For Sciatica



In many cases, those with Sciatica will have a positive ***Straight Leg Raise Test***. The straight leg raise test will place tension on the Sciatica nerve creating YOUR pain, numbness and or tingling in the leg.

We are looking for reproduction of YOUR exact pain or numbness, not the feeling of tension or discomfort in your hamstring, which may also accompany this motion. If this position recreates pain and/or numbness and tingling in your leg we can confidently say you have Sciatica.

This is something you can attempt on your own. Give it shot! You can just lie on your back and raise your leg. No friends are required!

1. **First, raise your right leg and then lower it. Did this cause your pain?**
2. **Next, raise your left leg and then lower it. Did this cause your pain?**

In some cases, people with Sciatica will NOT feel pain with this test.

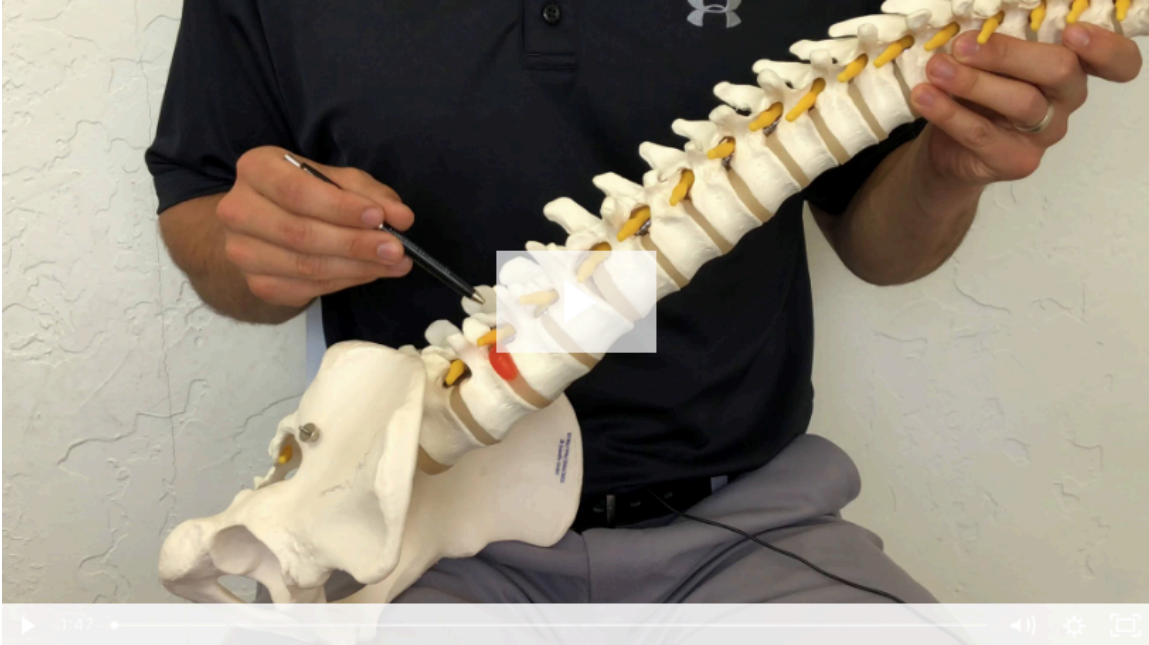
Radiating pain down the leg, especially with sitting, bending, twisting and coughing are strongly linked to Sciatica however. These symptoms alone are often enough for us to confidently say you have Sciatica regardless of the outcome of this test.

****Regardless of the outcome of this test you will still benefit from this course for helping resolve pain and improve back health.***

Four

What Causes Sciatica & Back Pain?

Watch Video: <https://youtu.be/rYtC4Q14PkQ>



In younger to middle aged adults, Sciatica with or without Back Pain is often caused by **pressure on the nerve from a disc (“pinched nerve”) and inflammation**. The pain felt at the back is often from a tear in the disc.

It is important to understand that not all back pain is caused by injury to a disc. Sometimes other tissues in the area may have sustained an injury (i.e. bone, ligament, tendon, muscle etc.). Regardless, the techniques and exercises in this course will be effective for reducing your pain and promoting healing.

What Is A "Pinched Nerve"?

This is a slang word used to describe a **disc bulge** or a **disc herniation** that puts *excessive* pressure on the Sciatic nerve. Nerves are built to withstand

some degree of pressure, and a bulge or herniation on an MRI report does NOT mean you will always have pain.

What Caused My "Pinched Nerve" & Back Pain?

Pressure from a disc on a nerve is often secondary to **repeated bending (rounding) at the low back in combination with twisting**. This injury can occur with repeated motions over time or if lifting something heavy with poor form just once. Repeated rounding of the back with or without twisting, especially under load is more often than not what causes tears in your disc. Which leads to back pain.

Fun Fact: A pinched nerve often times will **not** result in pain. The majority of us have a pinched nerve and we do not even know it. ***Inflammation in combination with a pinched nerve will usually trigger pain, numbness and or tingling.***



[This rounded back position repeated overtime often leads to disc injury that results in a pinched nerve. We need to STOP this common error ASAP (see picture above).]

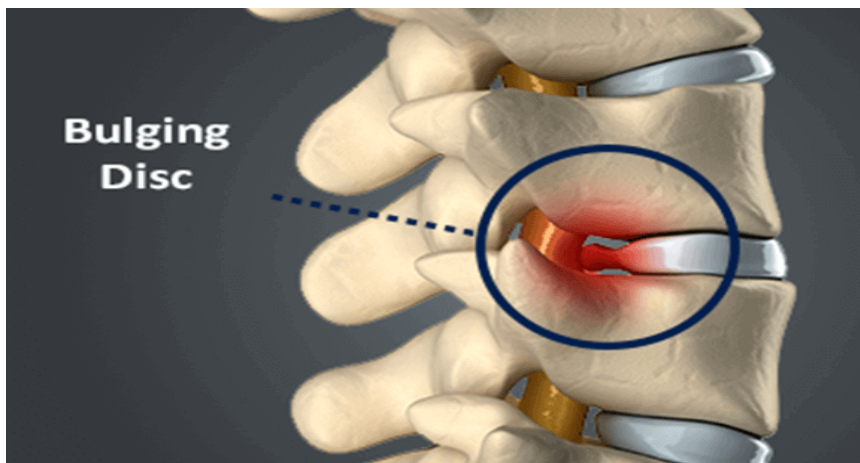
Disc Bulge and Disc Herniation: Understanding the difference will hasten or quicken success.

Understanding the role that the disc plays in your Sciatica and Back Pain will reinforce the importance of EVERY recommendation that I give you! Otherwise you are just going on blind faith, which I appreciate... but come on, we just met.

What Is A Disc Bulge (AKA "Slipped Disc")?

A "disc bulge" is exactly what it sounds like and is often termed a "*slipped disc*." Your disc bulge or herniation is what causes a pinched nerve, which is just pressure on the Sciatic Nerve. Recall that repeated rounding and twisting at the back are often to blame and can be worsened by periods of long sitting.

The disc itself did not slide out of place, rather the fluid and gel like material in the disc has bulged between the back side of the bones in your back. Pressure on the front of the disc from repeated spine bending (rounding) results in a bulge, similar to how pressing on the front of a jelly donut causes the jelly to squirt out the back side.



What Is A Disc Herniation?

A disc herniation is when a tear in the disc allows the gel material to come out of the disc and press on the Sciatic nerve (similar to the leakage of jelly seen in the picture above). Similar to a disc bulge, repeated back bending (rounding) and spine twisting is more often than not **THE CAUSE OF YOUR SCIATICA and BACK PAIN.**



Five

How fast will it take me to feel better?

I have seen patients find relief in only a matter of days and sometimes immediately following our first session.

You need to think of a back injury like a wound. It is easy to care for a superficial cut on your hand because we can see it, right? Small modifications in how you move, the postures you adopt and the right exercises can do wonders for helping your back heal. All things that we discuss in this course.

It is important to understand that just like a fractured bone, not all injuries heal the same or at the same rate. Most people will likely experience an unexpected flare up in their back pain if moving incorrectly or attempting to lift up something heavy.

With the tools offered in this course you will know what to do when an acute attack of pain starts. These tools will minimize the severity of the injury and allow you to recover much faster!

Long-term relief will be dependent on your compliance with the recommendations I have given. The reason I created this course is so my patients have a resource that they can continually look to for guidance.

This course will transform you into a knowledgeable advocate for your own health. Sadly, I see too many people relying on one medical provider that lacks a proper understanding of appropriate back rehabilitation principles.

"How long will it take to *heal*?"

This is an all too common question and most of the time patients are ACTUALLY asking, "How long will it take for the pain to go away?"

Understanding *Desensitization*: The Bruise Analogy

When we talk about ***Desensitization*** in rehabilitation, we are talking about the act of calming down angry muscles, bones and nerves.

Imagine you bruised your back while playing with your child. Maybe she threw a toy at you. Now imagine your lovely child slapping you in the same part of your back every morning upon getting out of bed. After a few days the sensation of your shirt rubbing up against your back may be enough to trigger pain. The repeated slapping, even though low in force, was enough to make your back very sensitive to most pressure, postures or movement.



... Can you recall a time in the past when you had a bruise without pain?

This is a great example of injury in the absence of pain. **Often times we mistakenly think that pain and healing have a 1:1 relationship.** On the contrary, it may take an injury months to years to be considered fully healed.

However, with the right approach you can desensitize the site of an injury, resolving pain within days to weeks. The goal is to remove the **Pain Trigger**. In this instance it would be your child's daily routine of slapping you. **For you it would be a host of errors that we discuss more in the next module.**

Module 2

First Step: Stop The Pain Now

One

Remove The Cause of Your Pain

The first thing we have to do, before implementing long term solutions is to **STOP** doing the things that are likely triggering the pain in the first place.

Believe it or not, research has shown that most people are doing the very things that are causing the pain. They might think it's helping, but those activities are actually prolonging the pain.

To Stop Pain Think Subtraction Not Addition



Before you can feel your best and look your best you need to subtract before you add. Let's look at weight loss as an example because I am sure most of you want to get out of pain so you can do the activities that you love. And let's be real, you want to look damn good while you are doing those activities!

A nice toned set of abs and arms would be awesome, right? I agree. Unfortunately, we all tend to make the same mistakes trying to get out of pain that we make while trying to lose weight and get in shape.

To lose weight the first thing you need to do is **Subtract NOT Add**. Before adding some overwhelming fitness regimen make sure you have a plan for your nutrition.

Subtract the refined sugars and refined carbohydrates like white breads. Stop adding Turmeric (or any other spice or herb that promises health benefits) to your meals if you are still drinking soda and adding sugar to your coffee.

Now when it comes to pain we do the same thing. We think adding more exercise is the answer. Or we think that pushing through the pain will somehow result in future pain relief.... that is a head scratcher.

Once we are in pain we start to replace our normal exercise with "corrective exercises" that our physical therapist or personal trainer gave us. Which usually equals lots of low back and butt exercises. It is the right idea, but often poorly timed.

Before you add or start interchanging new exercises we need to subtract to get rid of pain. We start by subtracting...

- Poor postural habits

- Poor movement quality
- Poor work ergonomics
- Poor quality and quantity of sleep
- Poor nutritional habits and food quality

These subtractions help reduce pain by:

1. Reducing inflammation
2. Reducing nerve sensitivity
3. Promoting healing

This should give you a HUGE sense of relief. It is not about more. It is about less.

5 Things You Can Subtract Immediately

1.Rounded Back Postures



2.Stretching Your Hamstrings



3.Stretching Your Lower Back



4.Self Back "Cracking"



5.Crunches and Twist Exercises



5 Things You Can Subtract Immediately [Overview]

1. Sitting, Standing & Lifting In a Rounded Back Posture

Low back rounding is likely what triggered your symptoms to begin with. Recall repeated rounding and twisting at the back is often the cause of Sciatica and Back Pain.

Surprisingly, people unconsciously adopt this posture in their lower back when in pain. It is a compensation that often delays your progress and worsens a pinched nerve.

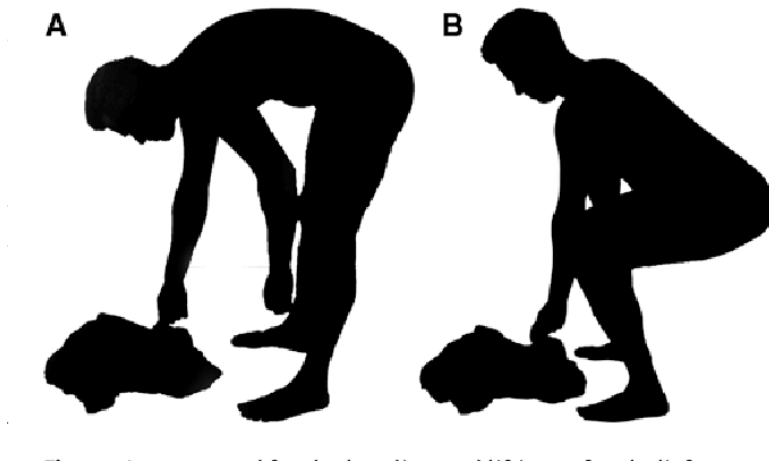
Somewhere along the way you were told to keep a flat back posture with exercise, standing and sitting. If you weren't coached into this posture you gradually adopted a flat back or slightly rounded lower back posture before or after your pain started.

This is a sure fire way to make your back and Sciatic nerve SUPER angry. Some degree of curvature (hollow) is naturally built into your lower back. Respecting this posture will prevent back pain and keep your Sciatic nerve from being compressed.

Wrong



A= Wrong B=Right



2. Stretching Your Hamstrings

This may feel good in the moment, but it is really stressing your Sciatic nerve in a way that is going to exacerbate the pain in the long run. An already angry nerve doesn't like to be tugged on! If stretching were the secret formula for getting better you would not be here. And honestly, I've met almost no one who has contributed stretching to relief from Sciatica pain. Interestingly, some of the most flexible people are the ones coming into my clinic complaining of back pain and Sciatica.



3. Stretching Your Lower Back

Many think their “tight back” is causing their sciatica and take steps to become more flexible in that area. In reality your tight back is only a symptom not the cause. Stiffness in the hamstrings, back and butt muscles are often because of an irritated disc and Sciatic nerve. You are not going to stretch the pain away. Think of your lower back more like the foundation of your house. You want it strong, stable and secure! When you start adopting this mindset and learn the proper way to move and exercise you will finally get the relief you have been looking for.



4. Self Back "Cracking"

Sciatica is often triggered by an injury to a disc in your back. With disc injury comes a little bit of instability in the lower back. This instability is often to blame for your back “locking up” or muscle spasms with even the most subtle movements. We want to strengthen and stabilize your lower back, NOT make

it more flexible. Your back “cracking” might feel good for a second, but it is only a temporary solution that leads to more chronic pain over time.



5. Doing Crunches AND Twists

I saved this one for last because I think it has become more common knowledge that these are a “no, no.” It has taken years for the Army to remove them from their Physical Fitness Test, but it finally happened. It is important to understand that the lower back is built to be STABLE, not flexible.

Exercises like crunches, side crunches and Russian twists are an excellent way to injure your back. The lower back (lumbar spine) is meant to RESIST not create motion. One of the biggest mistakes I see in the gym is poor lower back posture with lower back strengthening (Core Exercise), general strengthening and cardiovascular exercise.



Two

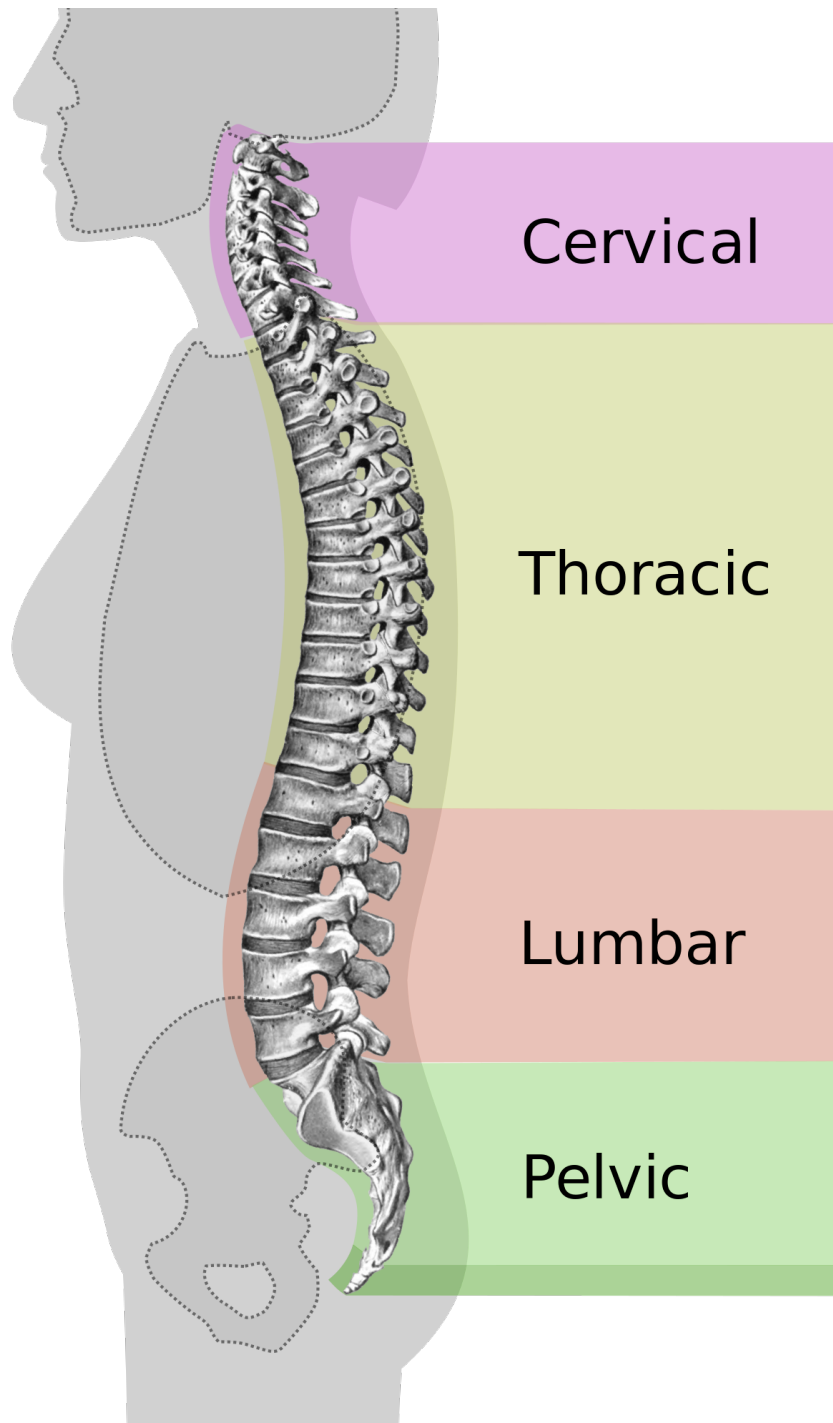
Fix Your Spine Curve to Stop The Pain

I know you are rearing to go! Some of you are ready to start jumping into planks and all kinds of strengthening exercises, but I need you to **PUMP THE BREAKS.**

At this stage, the goal is to **REDUCE PAIN.**

More exercise and lots of activity will only irritate your back.

First, it is crucial that you acknowledge the fact that **the lower back was built with a SLIGHT CURVATURE (hollow).**



**The "Lumbar Spine" is your lower back. Notice the slight curvature (hollow).*

This curvature allows the spine to function at its best. Similar to a skyscraper, the spine is most stable when it is in proper alignment.

Fun Fact: Adopting and respecting the natural curvature built in your low back helps **reduce stress on the disc and takes pressure off of the sciatic nerve**. It keeps the space where the nerve comes through nice and open so that thing can breath!

This is a "What came first, the chicken or the egg scenario?"

Following injury to the back or leading up to an injury, we begin to lose the slight curvature (hollow) that is naturally built into our lower back. We start to adopt more of a rounded low back posture. Sometimes it is very subtle and we do not even realize it.

Pain actually results in compensatory back rounding posture. "Why," you ask?

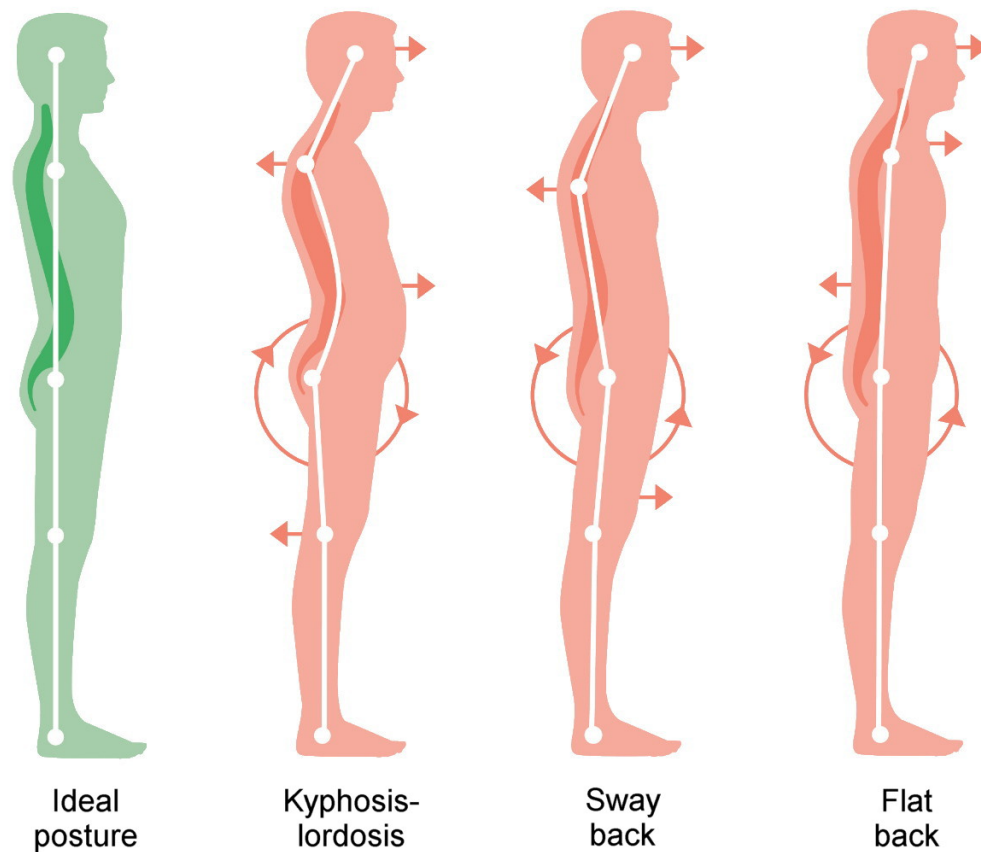
... Now listen up because this part is important!

It is hypothesized that people actually adopt a more rounded back position after their injury (the posture that actually CAUSED their injury) because of the ***slight stretch*** placed on the lower back muscles. This subtle stretch actually provides that "feel good, relaxing" sensation that stretching provides. Which is why you are so inclined to mistakenly stretch your pain away.

Unfortunately, this posture actually puts **MORE STRESS** on your disc and Sciatic nerve. Keeping you in pain longer.

It is the equivalent of taking drugs. It might feel good in the moment, but it has negative consequences in the long term. So stop rounding and stretching your lower back.

The Goal: Restore the curvature (hollow) in our lower back and reduce tension in the back muscles.



Before we move on to the next section you have the option to learn a little bit more about the Science Of Why This Works. If you just want to take my word for it then continue on to the next section.

Jelly Donut Analogy: If we press on the front of the donut the jelly will squirt toward the back of the donut. And in some cases right out the back.

The same thing basically happens in the disc. When increased pressure is repeatedly put on the front of the disc with repeated rounding and twisting of the lower back your are more prone to disc bulges at the back of the disc. And in some cases a gel like substance will leak out the back (disc herniation). This bulge or herniation places pressure on the sciatic nerve.

On the contrary, with back extensions (arching at the back) or we help move the jelly back into the donut... I mean, into the disc!



These exercises can be a great way to get temporary relief, as well as long-term relief. People will often report complete resolution of symptoms or

diminishing pain down the leg with more localized pain at the back. This is normal. It is called **CENTRALIZATION**.

Fun Fact: Not all pain is bad. With Centralization, your pain may become more focal to the lower back but NO LONGER going down your leg or felt at your leg (or foot). This is a good sign. It means the exercise is working.

PERIPHERALIZATION would be the opposite response. This is when symptoms actually radiate further away from your spine and down your leg. If this occurs please **STOP** this exercise and rely on other methods that we provide for relief.

In the next couple of modules we introduce exercises for taking pressure off the Sciatic nerve by getting the jelly back into the disc!



Three

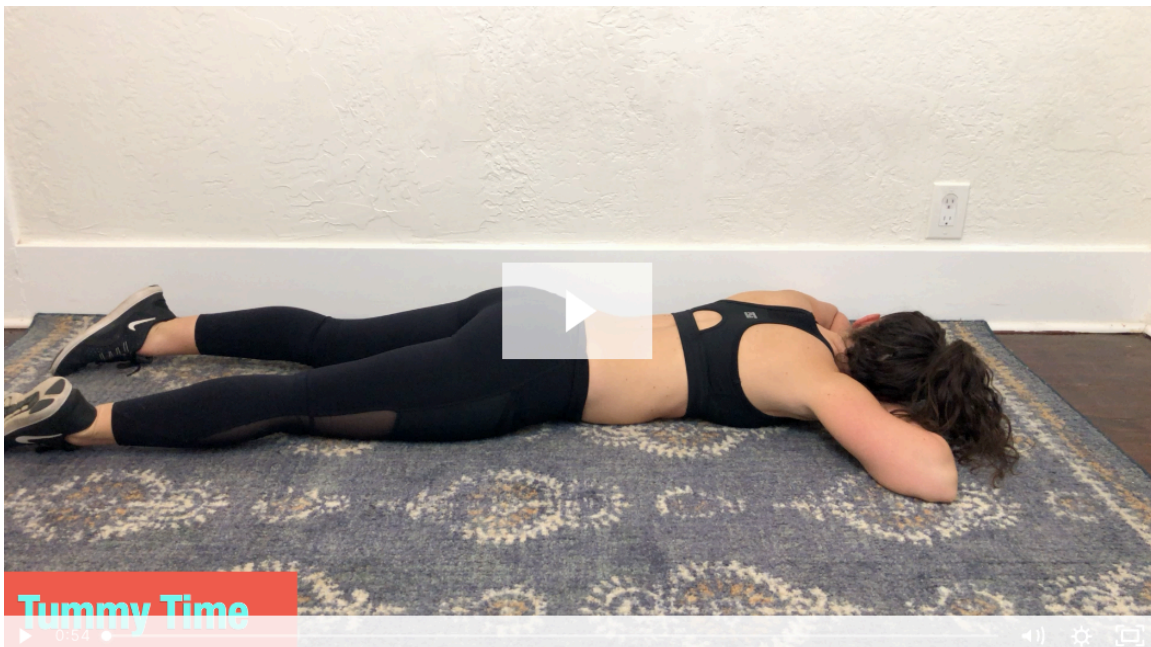
Exercise 1: Tummy Time

Tummy Time Exercise Prescription:

If this activity brings relief perform it as frequently as needed to get yourself out of pain.

Reducing the frequency and intensity of your pain is key for calming down the sciatic nerve. Remember, the goal is ***desensitization***.

**If you happen to re-injure yourself this position can be great for reversing a disc bulge. Which will lessen the intensity of pain and help you recover quicker.*



Watch Video: <https://youtu.be/h8yrNAqGcOM>

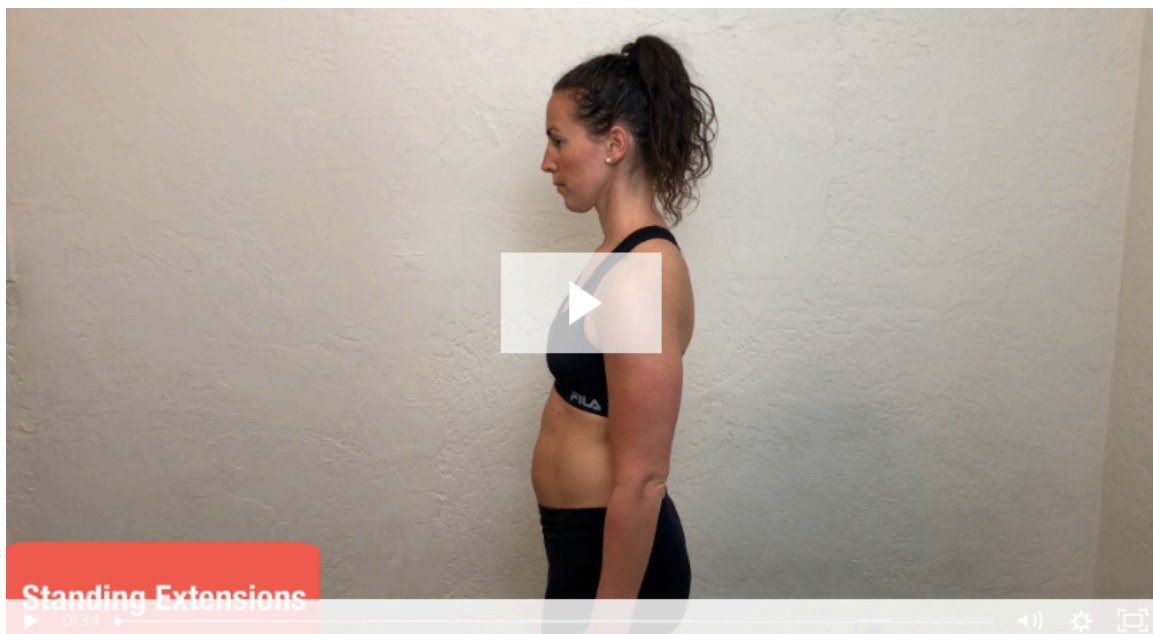
Optional Exercise: Standing Back Extensions

Standing back extensions are optional.

In some cases patients will report an immediate sense of relief with this exercise.

If this worsens your pain please discontinue the exercise and continue through to the next module in this course.

Standing Back Extensions Prescription: Perform 8-10 repetitions as often as needed to get yourself out of pain.



Watch Video: <https://youtu.be/JVKp410-Py4>

Four

Exercise 2: Cat Cow

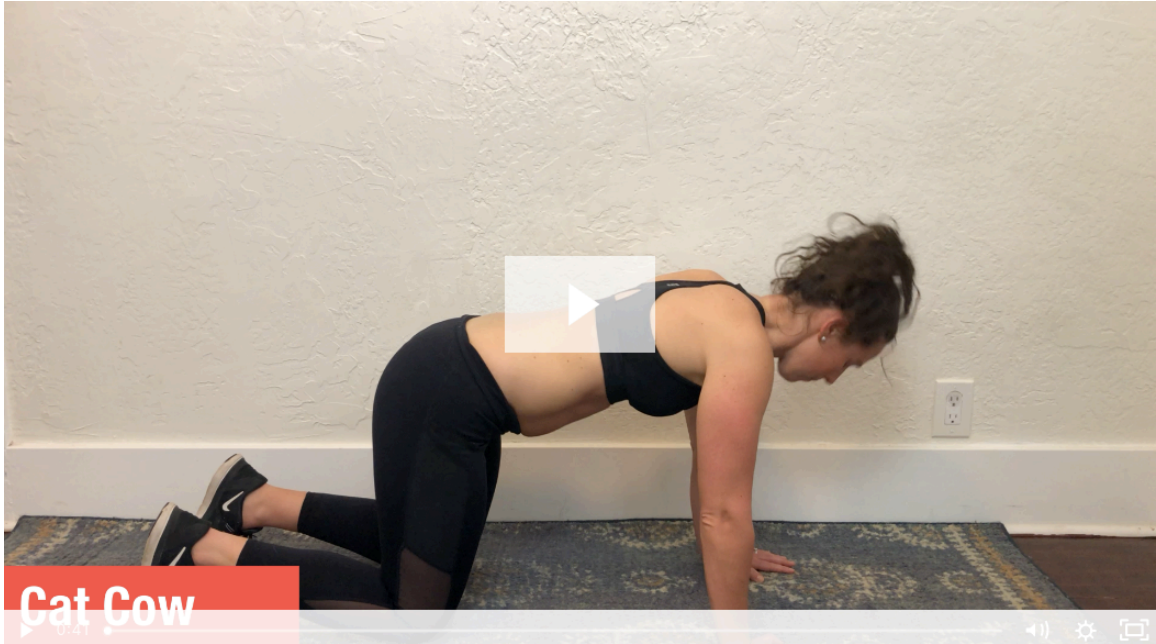
Cat Cow Exercise

The Cat Cow Exercise is a safer way for you to stretch the lower back **WITHOUT** generating pain or worsening a pinched nerve. This is because you are in an unloaded spine posture (unlike sitting or standing).

Please stop bending over to stretch your lower back while sitting or standing. The forces on your low back are MUCH higher compared to the cat cow exercise.

Fun Fact: This exercise can be very helpful if done first thing in the morning after a brief walk. Refer to the **Bonus Material** to learn about the Proper Morning Routine for Sciatica and Back Pain.

Cat Cow Exercise Prescription: Perform as needed during the day for relief for no more than **8-10 reps** at any given time. More than that may end up aggravating your lower back.



Watch Video: <https://youtu.be/fyHCvmRsW8s>

Five

Exercise 3: Low Back Decompression

Traction exercises are sometimes referred to as "**DECOMPRESSION.**" This is the act of lengthening the spine to help take pressure off the back. You are likely inadvertently doing this when you press into your thighs while sitting.

Not everyone feels an immediate relief with this exercise. I would still encourage you to do them periodically during the day to help with desensitization of the injured disc and nerve. Decompression can also help promote healing.

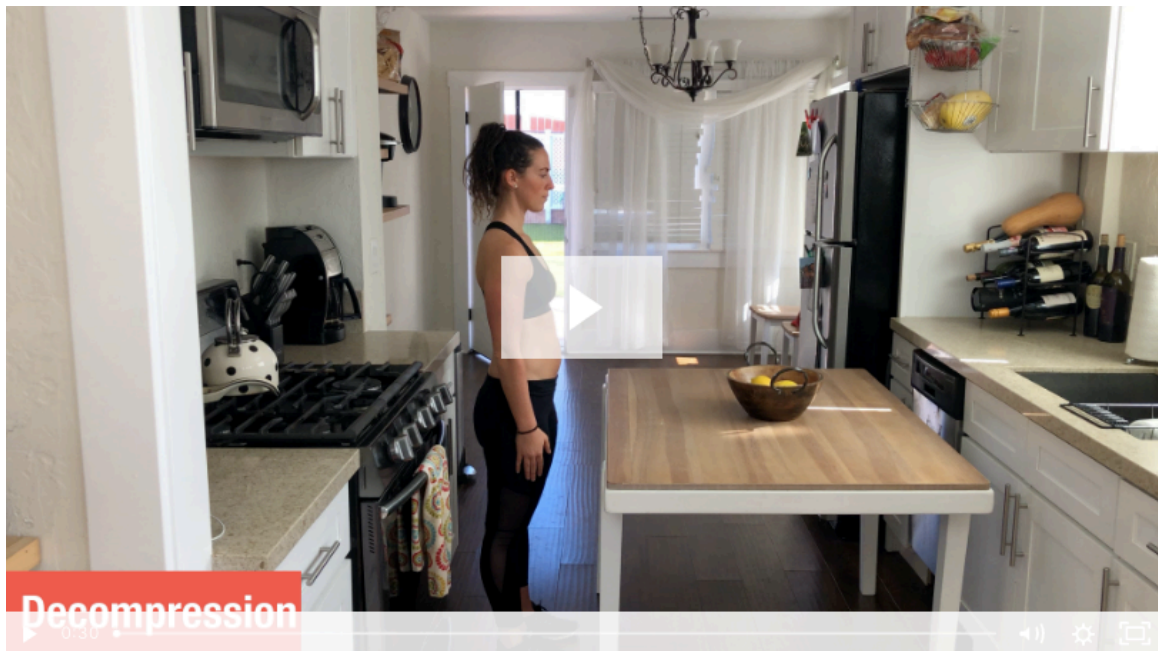
If this activity increases pain please discontinue.

Low Back Decompression Exercise Prescription: As often as needed for pain relief. Even if this does not change your pain it may be beneficial to perform this exercise 3x per day to help decompress the nerve and reduce sensitivity at the lower back (do it before each meal).

Reps: 3

Time: 30-45 seconds

Tips: Ensure that you are doing relaxed breathing and feeling like the pelvis sinks away from the spine.



Watch Video: <https://youtu.be/E1DOWWCed2E>

Six

Pacing: The "Secret" To A Successful Recovery

"No Pain, No Gain" Theory

When working with active duty and retired military I tell them that this "no pain, no gain" strategy is good for strengthening the mind, but not the body.

Say "Hi" to Rebecca!

After an injury most people get overly fixated on their **pre-pain self**.

"Pre-pain Rebecca" used to run 5 miles a day. "Post Pain Rebecca" can only run 1/2 mile before pain. If Rebecca tries to run 5 miles she may feel accomplished, but she will be sidelined for days due to increased sensitization of her back and nerves. Just as a marathon requires gradual increases in mileage, so does a return to fitness following a back injury. Too much too quickly and you will be sidelined. Remember, the back is trying to heal and it can't do that if we keep ***"Picking The Scab."***

Your body's **Pain Threshold** is a little lower than it used to be. Your disc and nerve can't take as much ground and pound after the injury so we need to sneak in there slowly and gradually.



Solution: Pacing

***Pacing** - the act of performing an activity at an intensity that causes little to no pain to avoid increased sensitivity and delayed healing.*

Pacing sounds boring, but it is far from that! Pacing is what every successful athlete does to improve strength and skill. If you add too much training or weight too quickly there is an increased risk of the athlete being injured. The same now applies to you. Pacing is not static. You will gradually go from doing very small bouts of activity that seem sadly insignificant to completing full trips to the grocery store and even workouts without pain.

The Power of Tiny Gains!

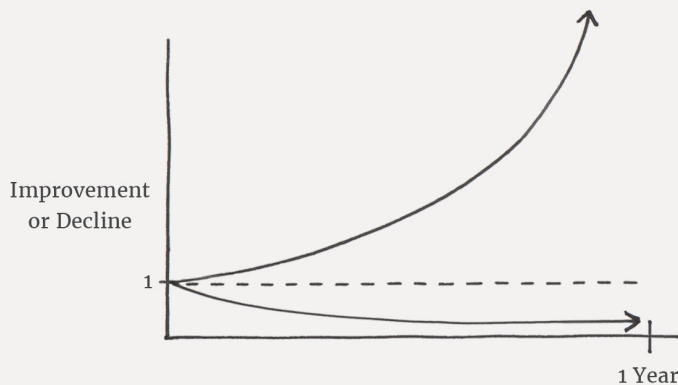
Everyone mistakenly thinks that their pain is just going to vanish with one exercise, medication, cream or whatever. This is far from the truth. You need to understand the **Aggregation of Marginal Gains**. This a concept made

famous by British cycling coach Dave Brailsford, who lead the British cycling team to 10 gold medals at the 2008 Beijing Olympics.

To quote James Clear, "In the beginning, there is basically no difference between making a choice that is **1 percent better or 1 percent worse**. (In other words, it won't impact you very much today.) But as time goes on, these small improvements or declines compound and you suddenly find a very big gap between people who make slightly better decisions on a daily basis and those who don't. This is why small choices don't make much of a difference at the time, but add up over the long-term."

The Power of Tiny Gains

$$\begin{array}{ll} 1\% \text{ better every day} & 1.01^{365} = 37.78 \\ 1\% \text{ worse every day} & 0.99^{365} = 0.03 \end{array}$$



JamesClear.com

Stay Out Of "The Pain Cave"

First and foremost, **good spine posture is crucial**. If you are moving around with subpar posture you are going to feel pain quicker.

Before setting your eyes on a complete return to the gym you need to make sure you can do the basics. Whether it is walking, cleaning your house, doing the groceries or gardening you need to understand the concept of **Pacing**.

Pacing is a great way to avoid flare-ups in pain by regulating the intensity and frequency of your activity. It is also a wonderful way to gradually expose you to activities you are fearful of because they once caused pain or currently cause pain.

Pacing requires you to first gauge how long you can do any activity before pain starts to increase.

--> If pain starts after only 5 minutes of walking, cleaning, grocery shopping, etc. then that is your current limit for that activity. You will not exceed that.

--> **DO NOT ENTER THE PAIN CAVE**. That means if you can only tolerate 5 minutes of sitting you will only sit for 4 minutes at a time and then adopt a pain free posture (**ex. Tummy Time**), allowing any discomfort to subside. Obviously you can optimize the ergonomic set up of your chair and your own posture to make sitting more tolerable (we discuss that in the next module).

--> You can then resume the activity for another 4 minutes. Over time you should be able to increase the duration of each activity without pain. In order to do that we need to stay out of the pain cave and spend a lot of time in

positions that feel good. This varies for everyone, but common postures or activities include (Tummy Time, Walking, Lying Down).

“Hurt equals Harm” Theory



On the flip side, if you just resort to bed rest you will not see an improvement. Exercising daily is important. Even if that just means walking and some gentle exercises provided in the next section. **"Why?" you ask.**

1.Desensitization and Healing: Motion is lotion. Movement creates more blood flow, which means more oxygen. This influx of oxygen helps with healing and also calms down angry nerves. It also produces a lot of feel good chemicals called endorphins that reduce pain (your body's own batch of healthy self made pain killers).

2.Strengthen Tissues: Movement and exercise (in the right quantities) help heal and strengthen the tissues injured in your back (disc and nerve). Similar to a cut on your hand, we need that cut to become a scar. Too much too soon

and you re-open the scar causing re-injury and pain. If you do not do enough that scar tissue will not mature, and become strong. Making you more vulnerable to repeated injury.

Module 3

Second Step: Living Without Pain

One

Spine "Bracing": Creating a Strong Back

What is "Bracing?"

Bracing is a subtle tensing or stiffening of the abdominal muscles. "Bracing" is something you can incorporate into ANY movement to eliminate or minimize pain.

I am introducing this module first because "Bracing" is something you can incorporate into ANY movement to eliminate or minimize pain.

Picture 1: Relaxed Resting Posture (no tension in abdominal muscles)



Picture 2: Brace (notice how subtle the stiffening of the abdomen is)



Why Should You Brace?

One of the challenges with disc injury is that it leads to some instability in the spine. Little micro-movements may occur at the spine during your daily activities.

If you have ever felt your back "lock up" or "spasm" suddenly when initiating a movement you know exactly what I am talking about.

Bracing (stiffening the muscles) **helps minimize these micro-movements at the low back.** This helps prevent muscle spasms, pain, numbness and/or buckling at the legs with routine activities. Overtime, you can brace less with day-to-day activities because your discipline and the natural healing process will cause less instability (micro-movements) at your lower back.

How Do I Brace Correctly?

When bracing, you want to stiffen the muscles as though you are about to be punched in the stomach (by a small child).

You should **NOT** push the belly out.



You should **NOT** suck the belly in.



You should **NOT** perform a crunch motion.



It is common for people to perform a crunch motion when asked to stiffen their abdomen. **This is incorrect and can actually trigger Sciatica and/or Back Pain.**

How Hard Should I Stiffen The Muscles?"

Adjust the strength of this abdominal contraction based on the difficulty of the task. Bending over to pick up a bottle of Clorox may only require a light contraction, where as picking up a 50 lb. piece of luggage may require 100% effort.

Brace Prescription:

After watching this video practice performing your Brace at only 10 percent effort. Practice this frequently during the day. Even if just sitting at rest.

Reps: 10

Seconds: 10 seconds

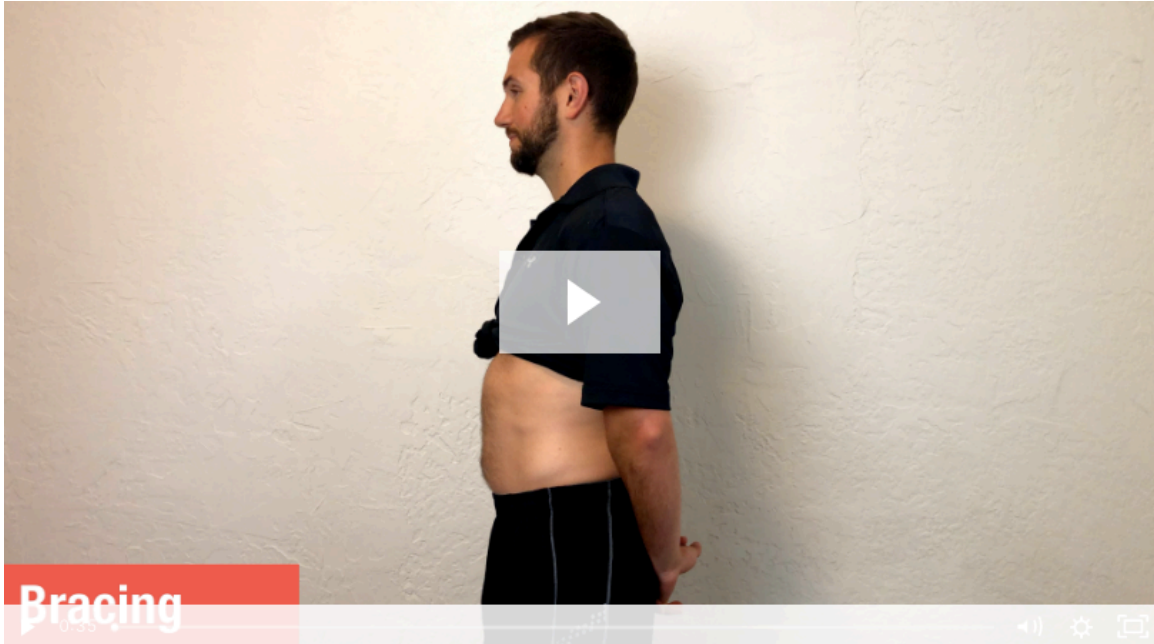
Frequency: Perform every hour.

Intensity: Tense muscles at 10% effort. Work on relaxed breathing while maintaining this tension [ex. 3 second inhale, 1 second pause, 5 second exhale].

What's great is that this gentle tensing of the abdominals has also been shown to provide pain relief.

Slowly incorporate bracing into your day with bending, lifting, moving from sitting to standing and even walking. [We will discuss this more in future sections].

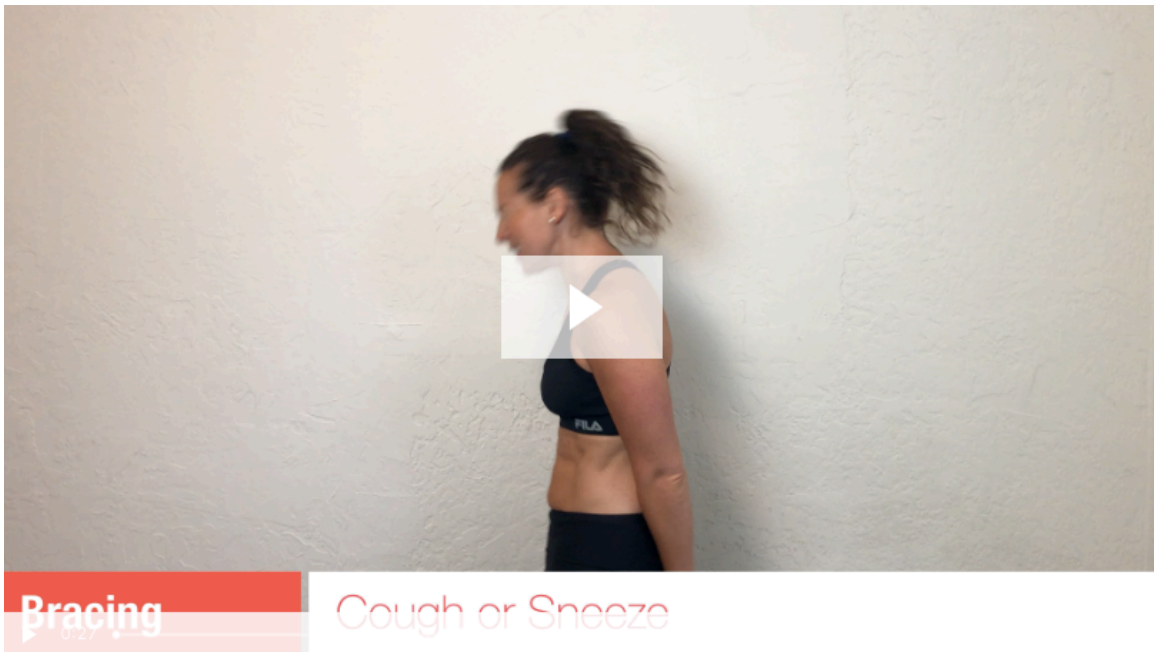
**If stiffening of your stomach muscles causes more pain discontinue this activity. In more sensitive backs, the compression on the spine caused by the muscle contraction may be enough to trigger pain. Re-incorporate bracing into your day-to-day activities when your pain has lessened.*



Watch Video: <https://youtu.be/iBb7TfmdzCk>

Bracing with Coughing & Sneezing

In this video we discuss how you can avoid pain with sneezing or coughing.



Watch Video: <https://youtu.be/YzHy2FtBqsQ>

Two

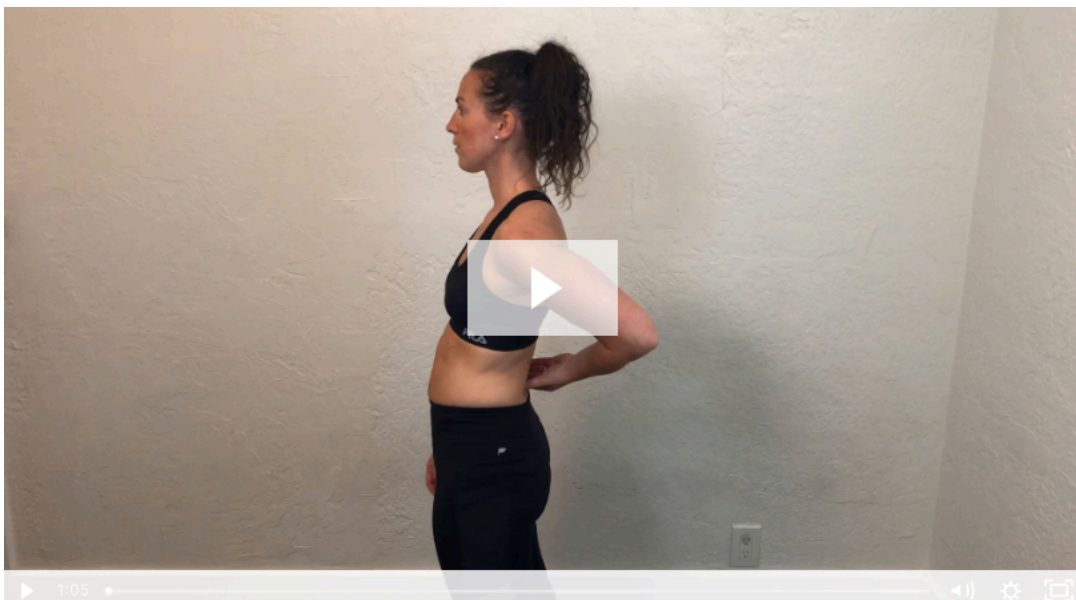
Standing Without Pain

Standing Posture Drill

If standing triggers your pain this module will be a game changer! In this module we will help you understand how to find a spine sparring posture for the lower back.

The key is learning how to adopt a posture that **minimizes tension at the lower back**. This will be critical for reducing stress on the lower back and Sciatic nerve.

Fun Fact: Understanding the role of neck, upper back and shoulder alignment is important for a pain free lower back. Subtle changes in posture can make a huge difference.

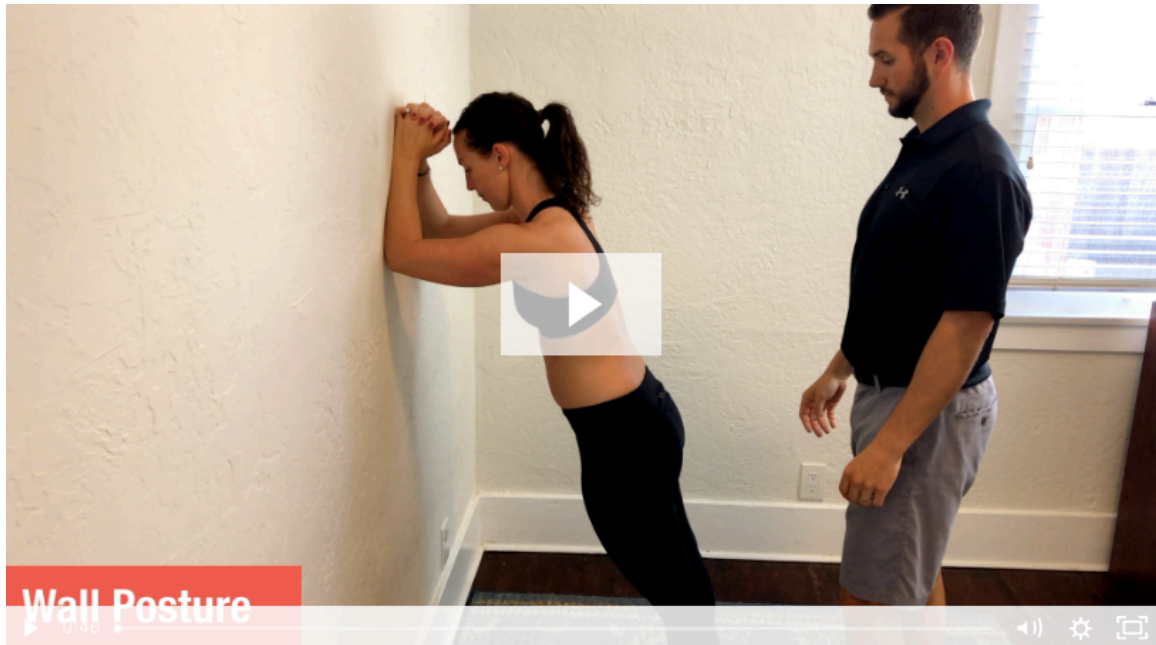


Watch Video: https://youtu.be/9ZRSSKB1_WM

Standing Wall Drill

This drill is used to distinguish between hip movement and low back movement. Many people have trouble isolating movement at the lower back and the hip, which often contributes to their chronic pain.

The goal is to combine hip and lower back movement to find **YOUR** pain free posture. Most of us will display mild variances in what feels best to us. **This drill can also be used to find relief when you are in pain.**



Watch Video: <https://youtu.be/waWH7Pi0naU>

Three

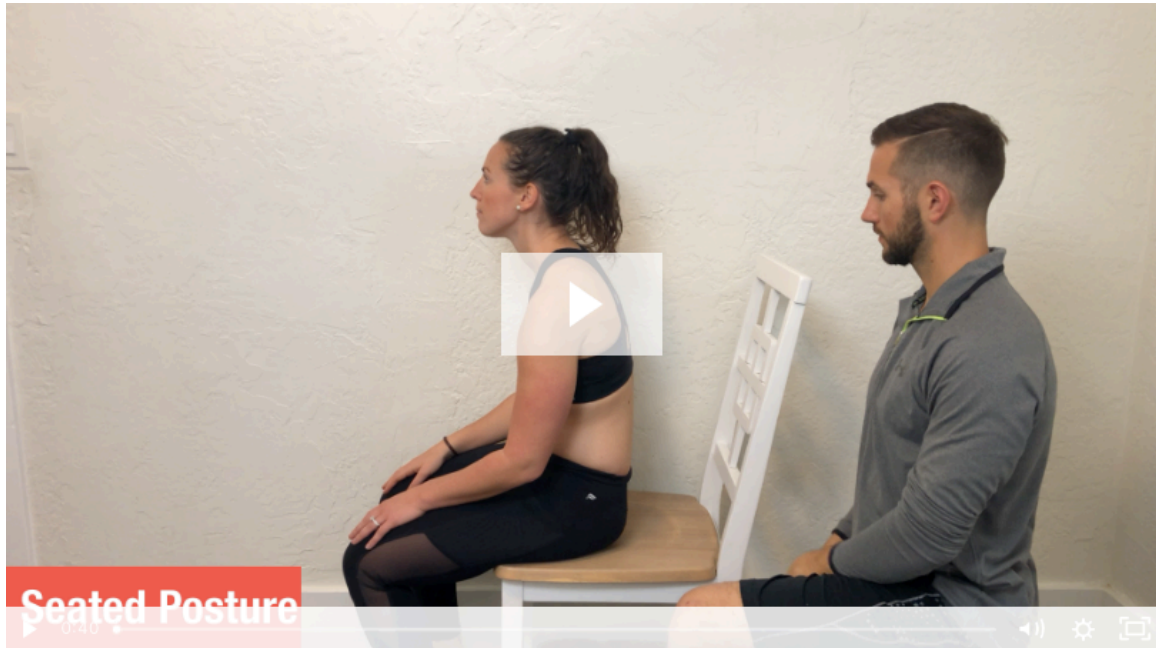
Sitting Without Pain

Seated Posture Drill

Similar to standing, you need to understand where your body is in space to help reduce tension at the lower back. First we need to find a neutral back position. In this module we will discuss "**The Tale of Two Spine Tilts.**"

In this video I point out that you can adjust your posture at two points in your lower back. The first point is at your pelvis and the second is at the junction where your thoracic and lumbar spine come together [T12/L1]. Don't worry I will explain more in the video.

What is important to understand is that you want a combination of movement from both of these tilting points. **REMEMBER...** the key to pain free posture is finding a point with **very little low back muscle tension.**



Watch Video: <https://youtu.be/i1PFDBdoATU>

Four

Walking Without Pain

Some people will naturally reap benefits from walking without any sort of coaching. If this is you, great! For those less fortunate we still use walking as a means of resolving sciatic pain. It actually becomes one of your **BEST** exercises.

Most people say, "but I walk a lot and it actually makes my pain worse."

After some questioning I quickly learn that their walks entail walking the dog, pushing a stroller, strolling through the mall or grocery shopping.

What is worse is that they often admit that they are **walking through pain** and usually stop when they **cannot bear the pain any longer**. When I ask "Why?" the response I often get is something like, "No pain, no gain... right?" To which I respond, "wrong."

You should NOT be walking through pain or doing any other activity through pain for that matter.

Walking the dog and strolling do **NOT** count toward towards your therapeutic walking program. **These walks actually tend to Increase pain** because of the slow stop and go nature of the walk.

Walking your dog, pushing a stroller and carrying bags also restrict the freedom of your arm swing. You are free to engage in these activities, however getting **OUT OF PAIN** will require you to also engage in a ***Therapeutic Walking Program***.

So how can a walking program contribute to your recovery?

Brisk walking with good posture and a good arm swing actually helps unload or take pressure off of the spine. When done well this can also be a great way to work on hip and spine strengthening.

This type of walking will produce more gentle muscle contractions (compared to slow stop and go walking) **that can actually have a pain relieving effect**. You also get to take in some fresh air and create more feel good endorphins (your body's homemade organic batch of pain-killers)!

Proper Walking Mechanics

At some point you have probably caught a glimpse of yourself walking in public. Maybe from a video or reflection of yourself in a window. If not, take a video of yourself walking so you can see what ***you actually look like***. Are you in good alignment? How is your arm swing?

In this next part we will work on fine tuning your walking to start making it into a pain relieving activity. We borrowed some tips from world renowned Biomechanist Dr. Stuart McGill to help you out.

1.Start with Good Posture

Recall the standing posture section in part one.

2.Lightly Brace Core

Lightly tense core muscles to help create stability at your spine and promote a neutral spine.

3.Marching Walk

Before taking off on your walk work on marching in place for a couple minutes. You should be able to march without loss of posture at your spine or shifting of your hips from left to right. Good spine stability and a happy back require Balance and Strength in your Hips. If necessary, stiffen your stomach muscles a little more and grip the ground with your feet to improve your balance and control.

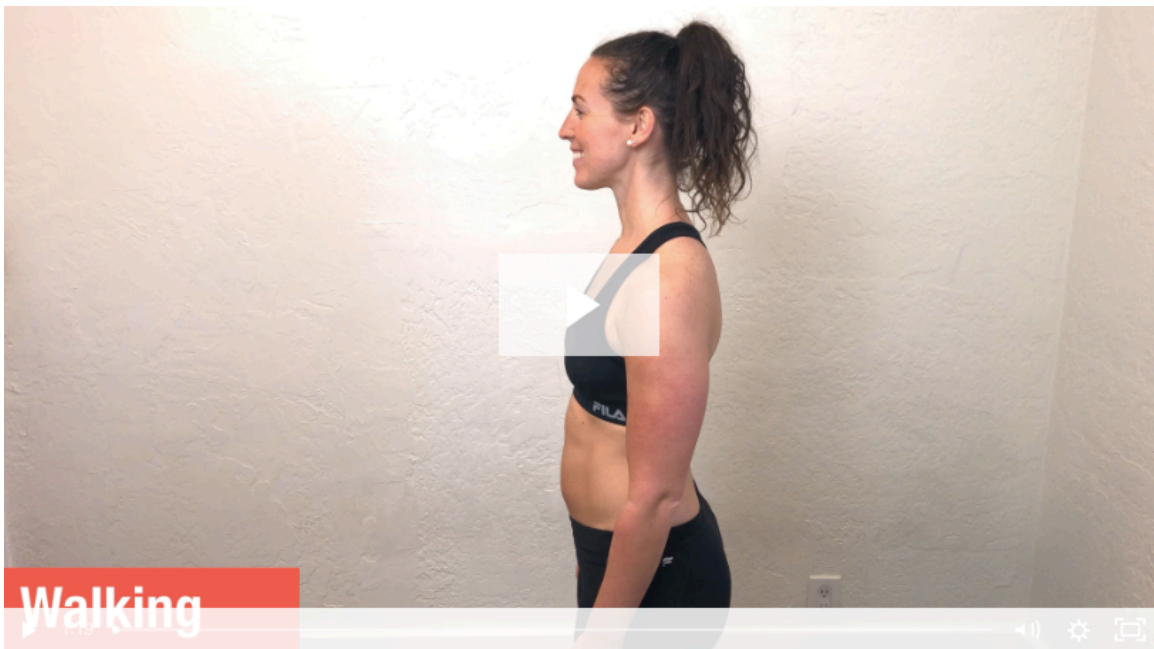
4.Arm Swing

When walking ensure that your arm swing comes from the shoulder joints, NOT bending of the elbows. A good arm swing helps reduce stress at the back.

5.Speed

Gradually progress speed and length of steps when walking. Slow walking and “stop and go walking” often increases stress on your spine, resulting in pain.

Fun Fact: Your feet do not need to be perfectly straight when walking. A slight in toeing or out toeing is normal. However, it is common for the foot on the side with Sciatica pain to be slighted more flared out (toed out). This toed out position reduces tension on the nerve. If you see this when you are walking make a subtle attempt to get the foot in a more neutral position. Awareness, along with the exercises discussed so far will be helpful in correcting this. The **Nerve Floss Exercise** in the Hip Mobilization section may help as well.



Watch Video: <https://youtu.be/akSc26BiCMc>

Walking Prescription and Guidelines

1. Start by adopting a position that resolves any radiating symptoms in your leg or pain at your back (attempt to lie on your stomach for a few minutes or perform one of the traction exercises provided).
2. Start walking. Stop before radiating symptoms begin.
3. Adopt a position or perform an exercise to that brings relief.
4. Resume Walking again.

Walking Prescription: How far and how frequently you walk depends on your tolerance for walking. If you can only walk 20 steps before pain you need to walk 19 steps on the hour. As your tolerance for walking increases the time between walking sessions increases.

Goal: 30 minutes. 3x/Day (breakfast, lunch and dinner)

Walking Up and Down Hill

Many folks do not feel great with walking up and/or down hills. Once walking on flat terrain becomes more tolerable you want to attempt walking on slopes. Start on low grade slopes, following the same plan for walking on flat terrain. Ensure that you maintain good posture and walking mechanics. Eventually walking backwards uphill can be a good way to work on leg strengthening as well.

Five

Bending Without Pain [Part 1]

Myth Alert!

At some point you have probably been told that you need to "keep a straight back" when squatting to avoid back pain. This is only HALF true.

A spine sparing squat involves **hinging at the hips**. This means that your trunk will be tilted forward slightly while still maintaining a straight back. This places your center of mass between your feet which takes a load of stress off your back!

Picture 1 (Jeanna): In the picture, the line along Jeanna's spine is just showing that her back alignment has not actually changed. It is still in neutral alignment. The motion is only occurring at the hip and knee. [We will discuss this more in the videos below].



Picture 2 (Cartoon): This is what most people falsely think their squat should look like. Unfortunately this often places **increased tension in the** back muscles.



Squatting is something we mistakenly think is only done in the gym. You would be surprised by how often we squat, or should squat, on a daily basis. Every time you get up and down from a seated position is a squat.

When bending over to pick something up you are doing some form of a squat. When you are bent over a sink brushing your teeth or washing dishes this is a “mini” squat. If you have pain with any of these activities then it is important that you perfect the squat.

Squat Tips

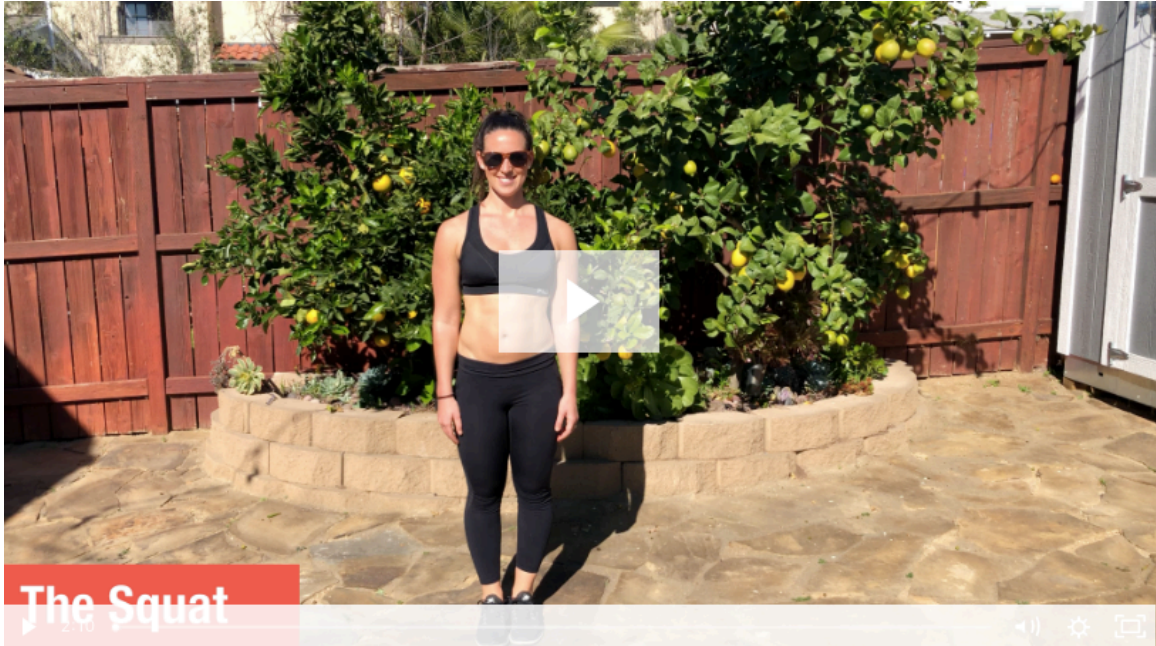
1.Adopt a wider base of support. Slightly wider than the shoulders works for most people. Find a width that reduces your pain.

2.Keep your knees between your heels and toes. A common mistake is letting the knees come over the toes. This encourages a straight up and down spine posture. This places your center of mass behind your feet, which places MORE stress on your spine.

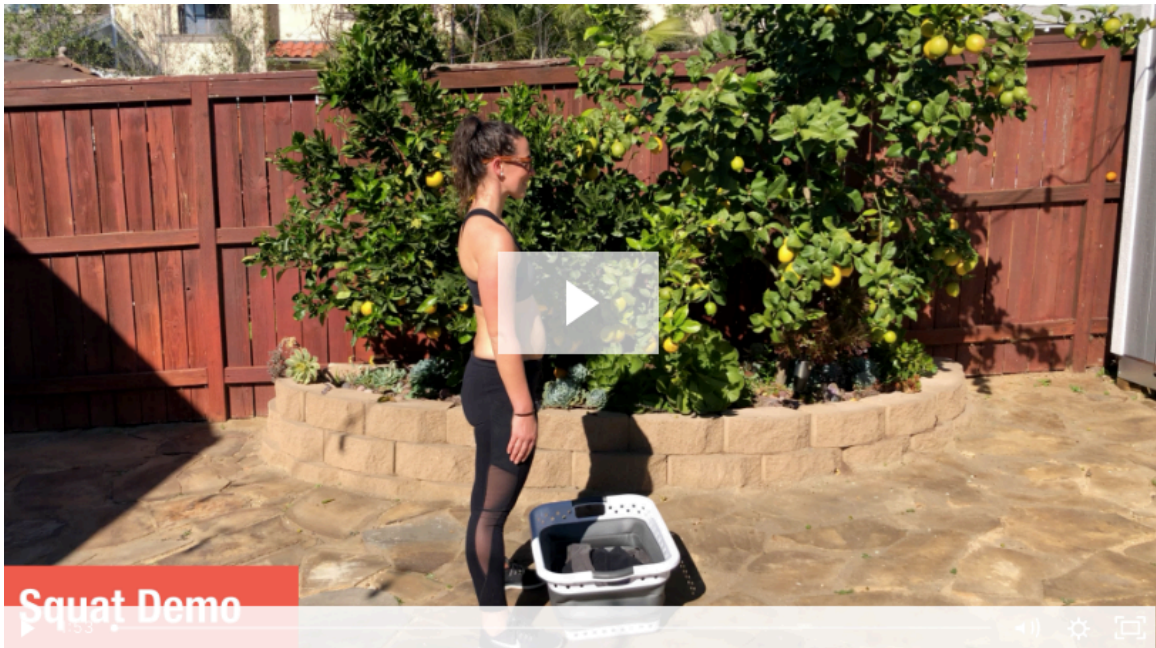
3.Keep a Neutral Spine Posture at all times.

4.Feel like your butt moves backward, not down. When squatting down feel like your butt moves backward. This will make you feel like you are tilting slightly forward from your hip joint. Your low back should have a slight arch (hollow), not rounded. This places your center of mass between your feet, which takes a load of stress off your back. You should feel like your butt and hamstrings have tension in them.

5.Return to standing by pulling your hips forward. The feeling you want is that you are pushing the world away through your feet. A common mistake is to return to standing by lifting at the back.



Watch Video: <https://youtu.be/gJXSHKxW0p4>

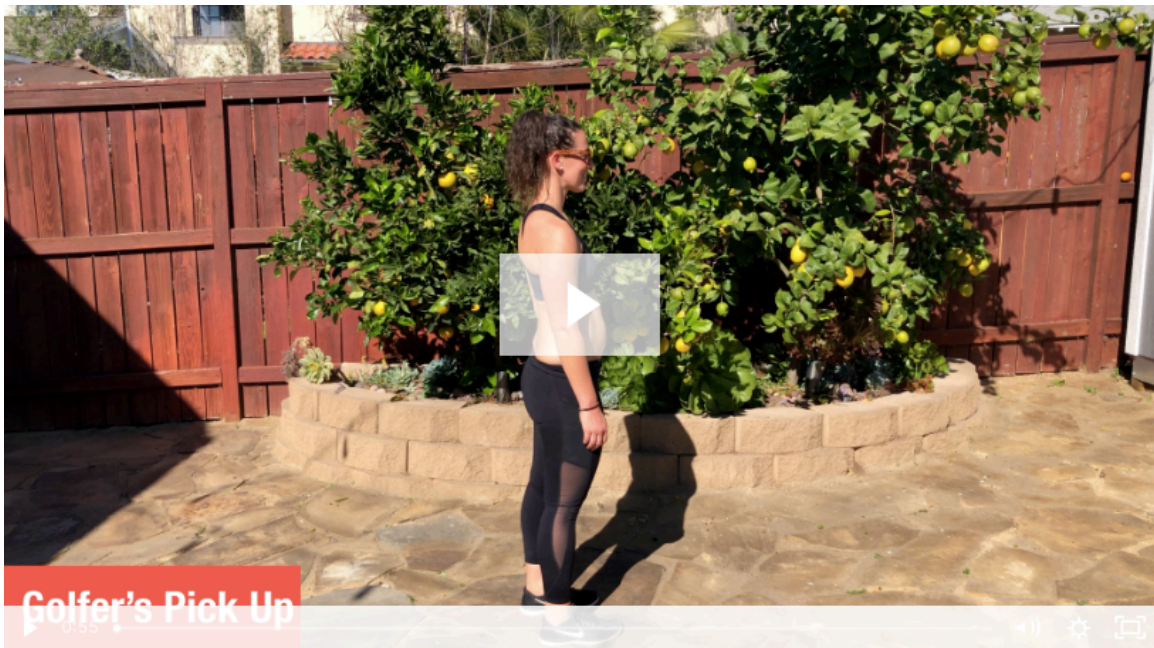


Watch Video: <https://youtu.be/eWDihBJAkvo>

The Golfer's Pick Up

The golfer's pick up is a movement that can be used for lighter objects. Your goal is still to stay in a neutral pain free back position. You will tilt from the hip joint keeping good alignment at the spine. To help with balance you can reach back further with your foot or use an object to help support yourself. This movement imposes very little stress on the spine.

If this move causes pain please do not perform it. However, if you just can't do this move because of poor balance I recommend that you work on it. Good balance and hip strength are a wonderful way to help prevent back pain.



Watch Video: <https://youtu.be/TwvAUdwgE9A>

Six

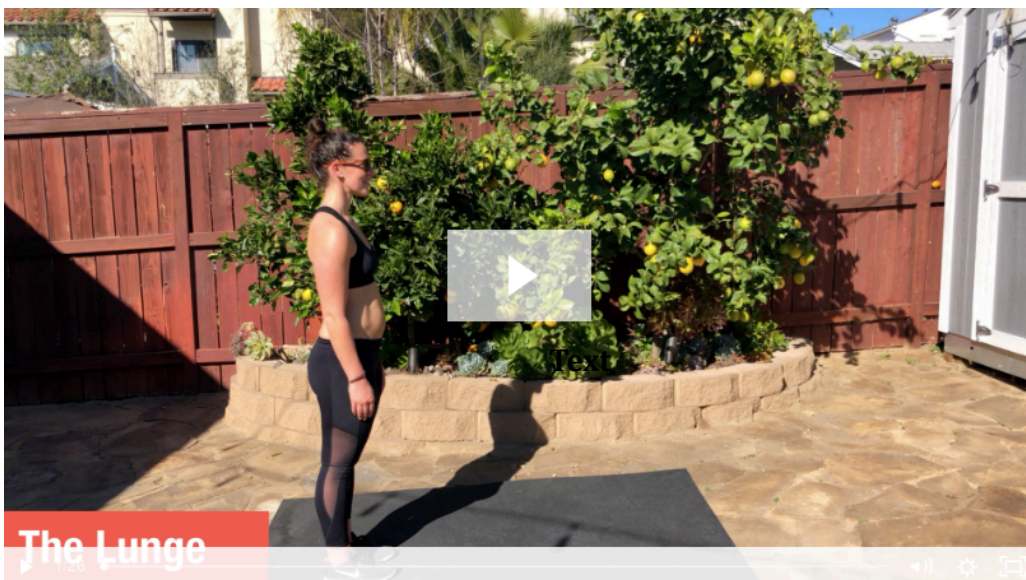
Bending Without Pain [Part 2]

In some instances a Squat will not be the most efficient technique.

The Lunge is another technique you can use. It is crucial that you can do this well to avoid pain with getting up and down from the floor and when lifting objects up off the floor.

Lunge Tips

- 1.Maintain a neutral spine posture.** Maintain a neutral spine throughout the entire motion.
- 2.Keep your front knee between the toes and heels of your foot.** You may need to take a longer stride to allow for this.
- 3.Brace your spine and stand straight up** when returning from the bottom of your lunge.



Watch Video: <https://youtu.be/vKY63Tuq02A>

Seven

Twisting Without Pain

Twisting at the lower back is another common pain trigger. Poor posture with bending and twisting at the lower back are often responsible for disc injuries that can cause back pain and/or Sciatica.

In this section we go over a couple exercises to prevent twisting at the spine with daily activities. You would be surprised by how often you actually twist at the lower back during the day. Some examples include opening and closing doors, taking groceries or children out of the car and rolling over in bed.

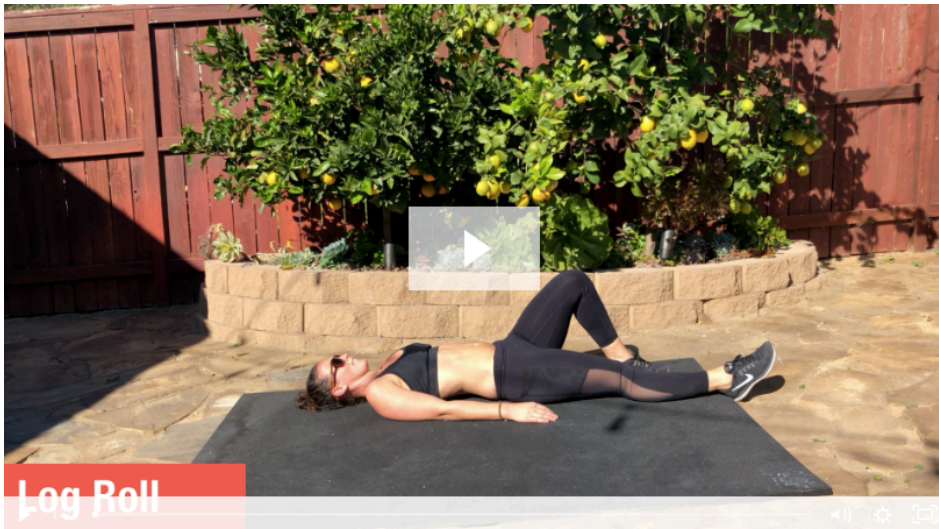
More provocative activities would be chopping wood, golf or loading freight. This twisting movement followed by forceful untwisting of the spine creates a lot of stress at the back.

In the following videos we are working on movement from the hip or shoulder joint rather than the lower back.

Remember, the low back is built for stability **NOT** flexibility.

Log Roll

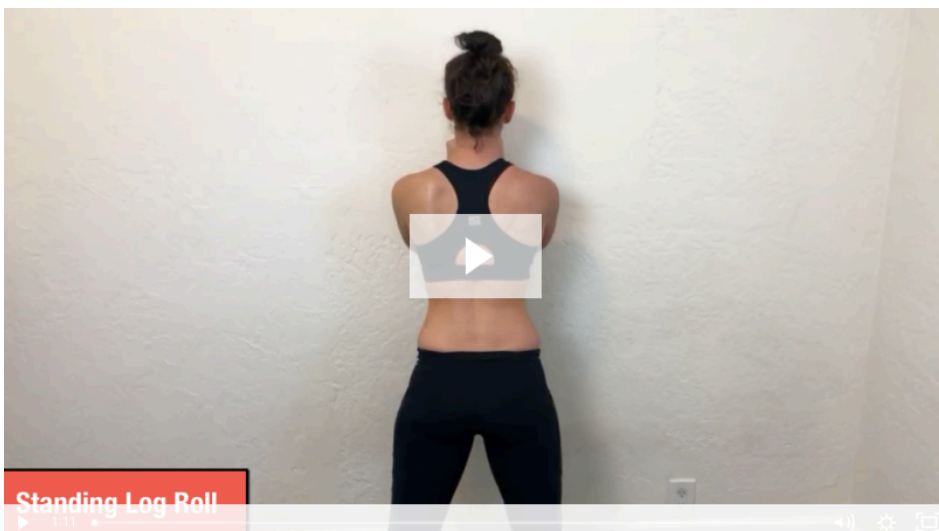
In the first video we introduce a technique called the Log Roll. This is a great way to avoid twisting at the lower back when getting out of bed or transitioning off of the floor.



Watch Video: <https://youtu.be/0Q0FFxWQgUA>

Log Roll in Standing

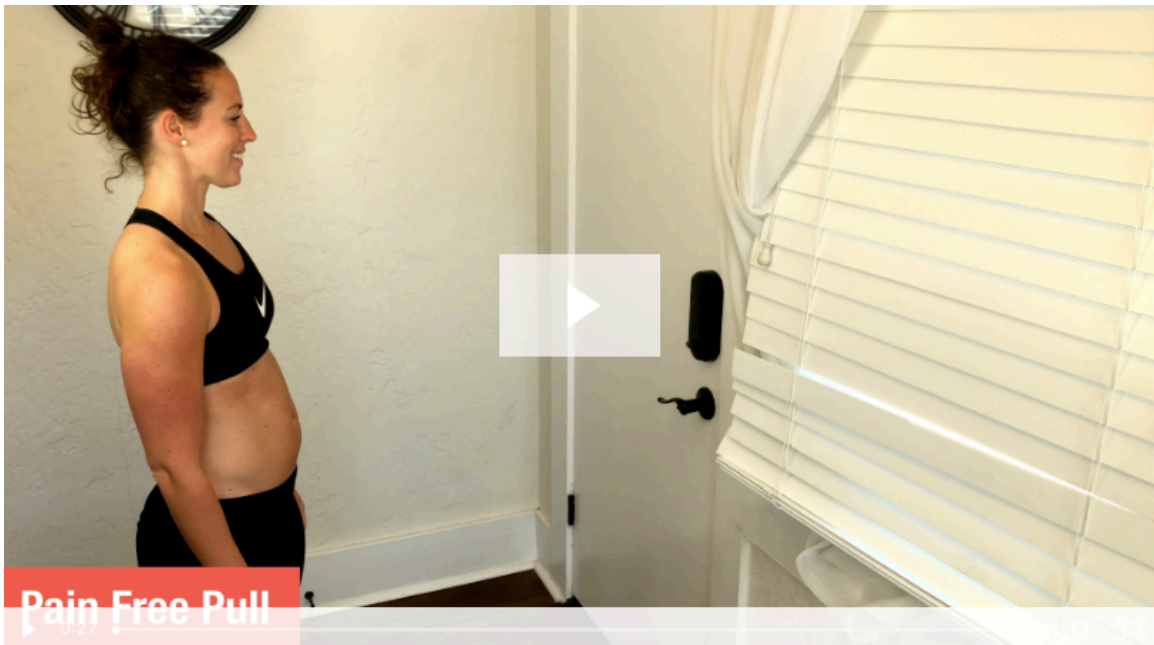
In this video we introduce a drill that helps you learn how to avoid twisting with most activities while standing, along with an applicable demonstration.



Watch Video: <https://youtu.be/cEdLm2mzGL8>

Anti-Twist with Pulling & Pushing

In this video we discuss how to move from the shoulder without creating a stressful twisting motion at the lower back. We use opening a door as an example. The same concept applies to pushing motions. When your pain has diminished and you eventually return the gym, the same principles will be applied to any pushing or pulling movements done with weight.

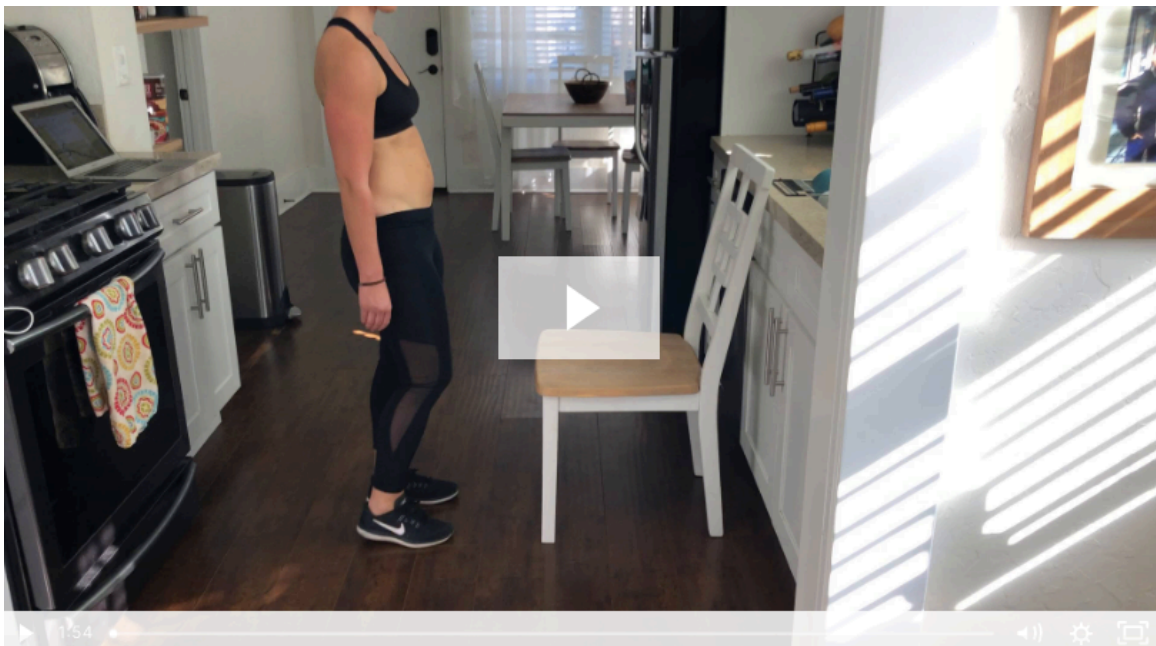


Watch Video: <https://youtu.be/nCmb-1ik-uA>

Eight

Stop doing this NOW!

In this section we go over a host of different behaviors that you need to **Stop Doing Immediately** to feel your best. **It is often what you stop doing that will make all the difference.** Living in California it is hard not to use wild fires as an analogy. We can spend millions of dollars on the best equipment and Firemen for resolving fires, but prevention is key. And only **YOU** can prevent wild fires... and Back Pain and Sciatica.



Watch Video: <https://youtu.be/yHBdyZl-V3w>

Module 4

Third Step: Preventing Future Pain

One

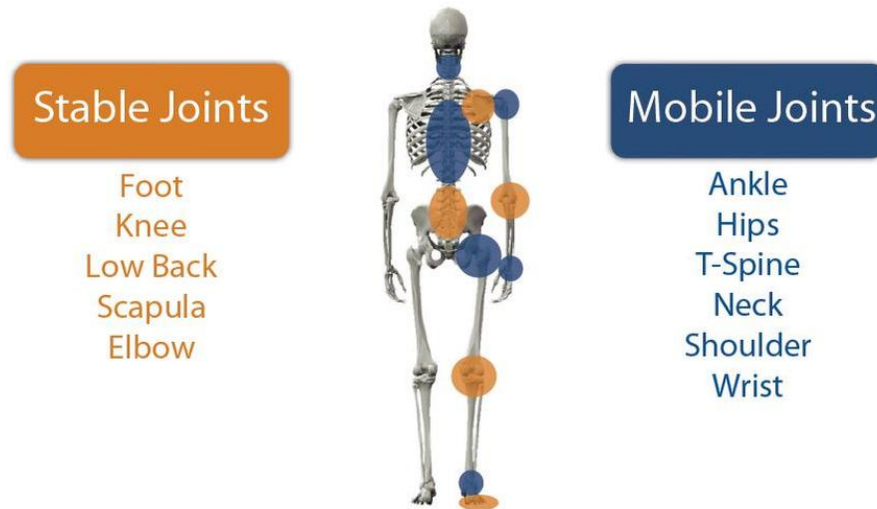
Strengthen Your Back the Right Way

The term "**Core Exercises**" get's thrown around a lot without a clear understanding of what the purpose really is. The reason I know this to be true is because the majority of people I see mistakenly think they need to **create a stronger more stable lower back, while simultaneously creating a more flexible lower back.**

How in the world are we going to stabilize the lower back and make it more flexible at the same time?



Remember, the low back is meant to be Stable. The hips, shoulders and upper back are meant to be Flexible.



Goal #1: Learn how to engage the "core" muscles to strengthen the back

Now that you understand the importance of a neutral back posture we need to **REINFORCE** it with your core exercises. We discussed bracing the back in the second section **so you should already understand how to stiffen the abdominal muscles.**

[Go back to The Bracing Module in Section 2 for a refresher].

We need to call on the **MUSCLES** to create a strong stable lower back.

Remember those little micro-movements at the spine we talked about in the Bracing Section? If not, I will remind you that they are often to blame for your back spasms and usually occur because of a disc injury.

Fun Fact: What is great is that Back Strengthening Exercises (aka Core Exercises) will cause an almost immediate reduction in these micro-movements for a couple hours after performing your core exercises. **Which means less pain!**

Goal #2: Create Endurance in the "core" muscle.

First and foremost, the goal of your core exercise will be to increase your endurance. Endurance is how long the muscles can last. The longer you can maintain good posture at the lower back the less likely you are to injure yourself.

The day is long. You need to be able to tolerate some sitting, walking, bending, lifting and exercise without fatigue at the low back.

Fun Fact: People with poor endurance in their core muscles are at greater risk of back injury!

Dr. Stuart McGill's Core Guidelines

1.Do not work through pain: Remember our discussion on *Pacing*. If you can only do a few minutes of these exercises with good form before pain sets in then you will need to perform a few short duration sessions throughout the day until you can perform the prescribed exercises in one sitting.

2.Avoid these exercises early in the morning when first waking up.

3.Perform these exercises every day.

4.Perform the Abdominal Brace with each exercise at 10 to 20 % effort. Adjust the tension as needed without creating pain.

5.Maintain a neutral spine alignment throughout each exercise.

6.Stick to the Rep scheme provided to minimize excessive muscle soreness and cramping. Stick to 10-second repetitions. Add repetitions, NOT seconds as you progress.

Day One: Start with a few repetitions of each exercise and then see how you feel the next day.

Similar to walking, if you can only tolerate low levels of exercise perform more frequent sessions per day, only performing a few repetitions of each exercise. If you can perform the prescription below, one session per day is enough. Add repetitions to each session as the exercise becomes easier. **NEVER** sacrifice quantity for quality of movement.

Core Prescription

Each Rep= 10 seconds (you will perform a 10 second hold)

Set 1: 5 reps, 20 second rest

Set 2: 3 reps, 20 second rest

Set 3: 1 reps, done.

As long as you are not having pain and the prescription above is not too difficult add 1 rep to each level the next day. You can also remove reps from each set as needed based on stamina and/or pain.

Goal: Get to a point where you can perform each of these three exercises for an equal number of reps. Each exercise is working on building endurance in a different region of the core. Research shows that **BALANCE between each muscle groups lessens your risk of injury.**



Watch Video: <https://youtu.be/ZwgaQNoz5jI>

Two

Exercise 1: The Curl Up

The curl up is NOT a crunch. Your goal is to maintain the hollow in your lower back.

Instructions

1.Lie down on your back with one knee bent.

Tip: You can alternate which leg is bent every set as long as you are not having leg pain. If you are having leg pain, bend your knee on the painful side.

2.Begin by bracing the core muscles.

Tip: Fine tune the amount of stiffening based on the difficulty of the exercise. Recall that the goal is to maintain a neutral spine posture.

3.Raise your elbows off the floor so they are not assisting in the movement.

4.While keeping neutral spine alignment at the neck and back raise the head and shoulders only a couple inches off the ground.

Tip: You should feel like the movement is coming from your sternum. A common fault is pulling the chin to the chest. Work on controlled belly breathing as these exercises become easier.



Watch Video: https://youtu.be/_PNqJPHNYjw

Three

Exercise 2: The Bird Dog

This exercise is a great way to understand how to move from the shoulder and hip joint without sacrificing good spine alignment. Something we previously discussed in the section on twisting.

Instructions

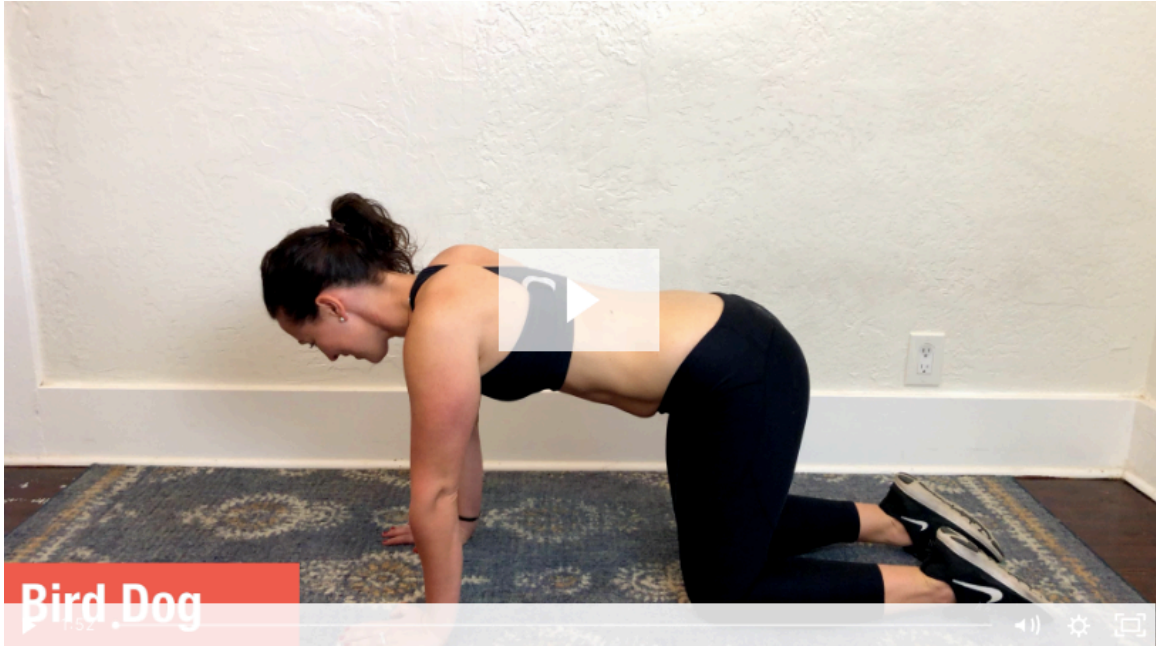
1.Start out on all fours using your Cat Cow exercise to find a pain free neutral spine posture.

Tip: Use a mirror to check your alignment.

2.Brace your core muscles without changing the alignment in your spine.

3.While maintaining your spine alignment, move the opposite arm and leg together. Pushing the fist forward and kicking the heel straight back.

Tip: modify as discussed in the video based on pain tolerance. Work on controlled belly breathing as these exercises become easier.



Watch Video: <https://youtu.be/LGTrOwgv88I>

Four

Exercise 3: The Side Bridge

Modify this exercise as needed based on pain tolerance and strength. When resting in between sets ensure that you are still in good spine alignment.

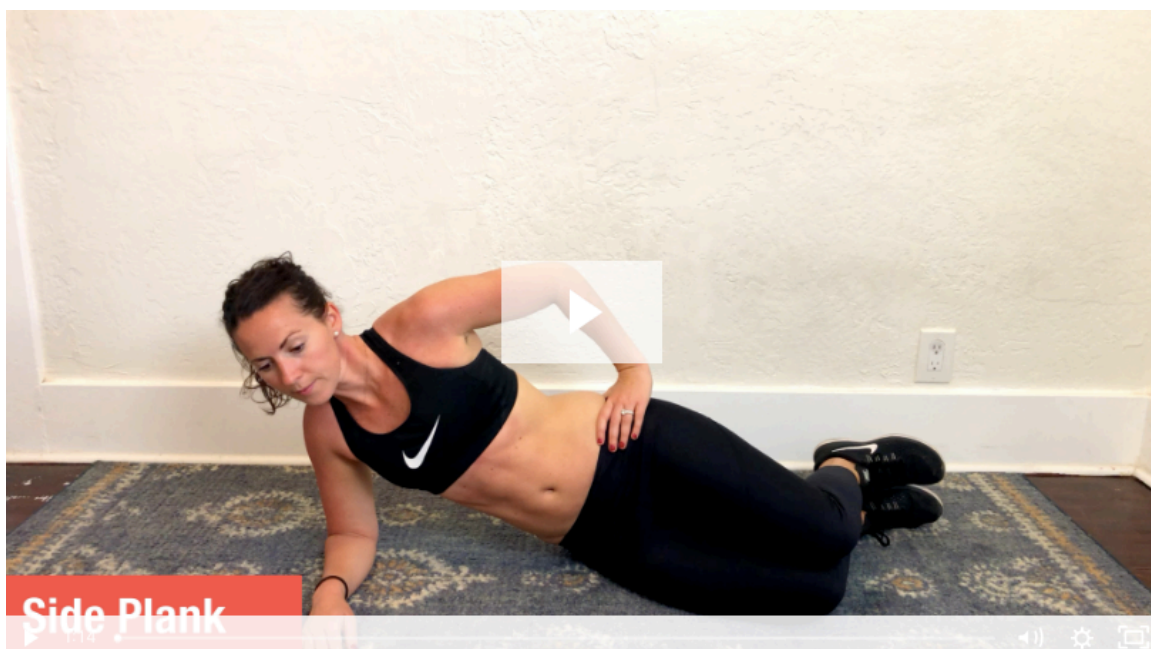
Instructions

1.Begin by lying on your side with the forearm underneath you. With your knees and hips slightly bent.

2.Brace your core muscles.

3.Raise your hip off of the floor while feeling like you pull your belt buckle forward so your body is in a straight line.

Tip: You can use a mirror to ensure you are in a straight line without twisting at the torso. Avoid a shrugged shoulder position by pushing your-self away from the floor. Work on controlled belly breathing as these exercises become easier.



Watch Video: <https://youtu.be/Qa2BAZcesy8>

Five

Mobilize the Hips

Caution: Do not start stretching until your pain is minimal.

One exception exists... you can attempt the last exercise in this section called "**Nerve Flossing**" in an effort to reduce radiating pain in the leg.

Hip Mobilization

The reason we use the term "Mobilization" instead of *stretching* is because **stretching alone is not effective for long-term pain relief.**

Mobilization on the other hand is a combination of flexibility and strength.

A popular saying is: "*Glutes (butt muscles) are KING and the Core is QUEEN.*"

Fun Fact: Flexible hip joints with strong hip musculature are key for preventing back pain. Back pain often inhibits ("turns off") the core and hip muscles. This can be effective in the short term for pain reduction, but detrimental for long-term improvement.

To help turn these muscles back on we will give you some exercises to create freedom of movement in the hip joint while simultaneously engaging the hip muscles.

In each of these exercises we put a strong emphasis on **DISSOCIATION**.

Dissociation is the ability to move independently from the hip joints while not moving the lower back. We worked on this with our squats, lunges and also in the bird dog exercise. Moving from the hips and shoulders while sparing the spine is vital in your day-to-day activities and exercise.

**Learning how your body was meant to work helps transform you
into a fine tuned machine!**

Exercise 1: Bridge

Instructions

1.Start out lying on your back with your knees bent around 90 degrees.

2.Work on contracting (or stiffening) your gluteal muscles by pretending that you are holding a pair of playing cards between the folds in your butt cheeks.

Tip: Make sure you perform this contraction without a change in posture at your spine. You also want to feel like the gluteal muscles are contracting with very little activity in the hamstrings.

3.Raise your pelvis off the ground as you contract your gluteal muscles feeling like your back and pelvis are in a straight line.

Tip: To get a stronger gluteal contraction with less hamstring activity try raising your toes off of the ground OR press your toes into a wall while raising your pelvis off of the ground.

Tip: Try to assess if one glute is contracting better than the other and work on improving the deficient side by making a more conscious effort to contract the deficient side.

Bridge Prescription

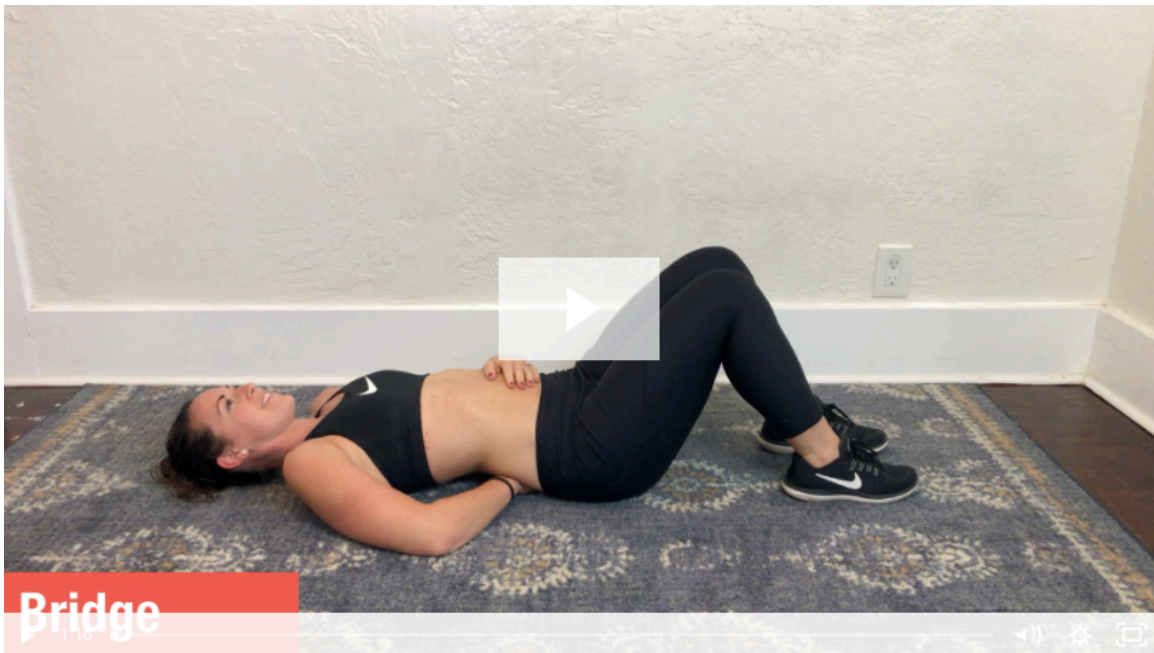
Each Rep= 10 seconds (you will perform a 10 second hold)

Set 1: 5 reps, 20 second rest

Set 2: 3 reps, 20 second rest

Set 3: 1 reps, done.

As long as you are not having pain and the prescription above is not too difficult add 1 rep to each level the next day. You can also remove reps from each set as needed based on stamina and/or pain.



Watch Video: <https://youtu.be/Ggts8w7whNU>

Exercise 2: Clamshell

Instructions

- 1.Start out lying on your side with your knees bent around 90 degrees and your hips slightly flexed.**
- 2.Wrap your hand around your pelvis and feel the gluteal muscles.**
- 3.Open the knees feeling the gluteal muscle contract. If you do not feel a contraction in these muscles try to consciously tense them with each repetition.**

Tip: Ensure that you do not rock the pelvis backward. Motion should only occur from the hip joint.

Clamshell Prescription

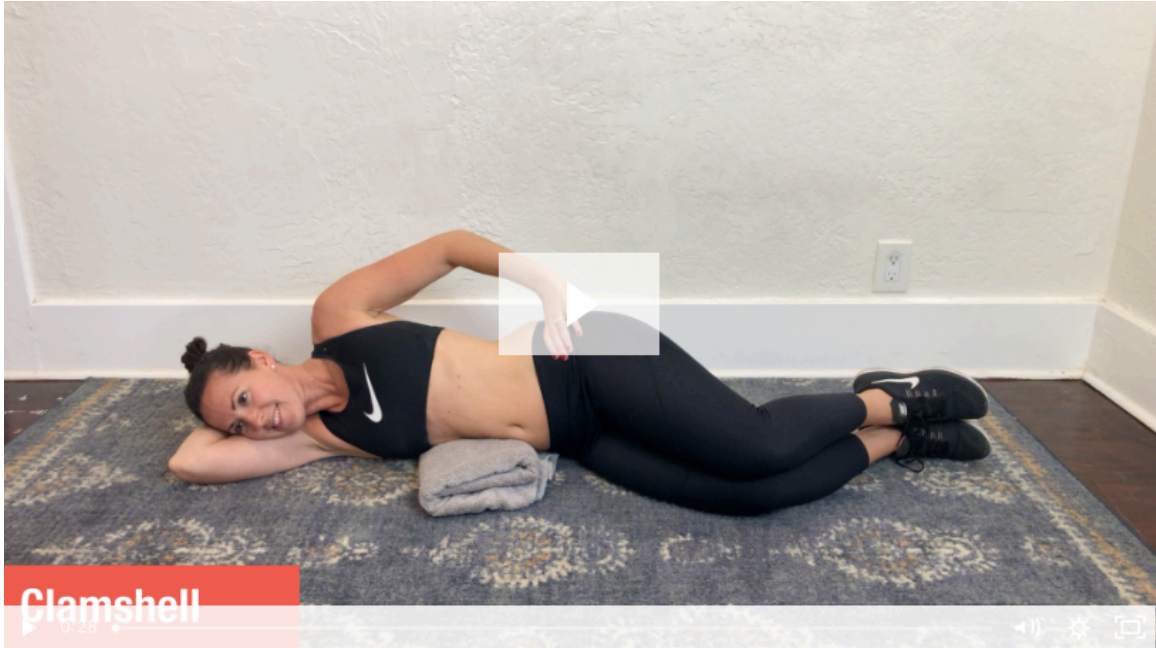
Each Rep= 10 seconds (you will perform a 10 second hold)

Set 1: 5 reps, 20 second rest

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Set 3: 1 reps, done.

As long as you are not having pain and the prescription above is not too difficult add 1 rep to each level the next day. You can also remove reps from each set as needed based on stamina and/or pain.



Watch Video: <https://youtu.be/Q5j70lsZQUY>

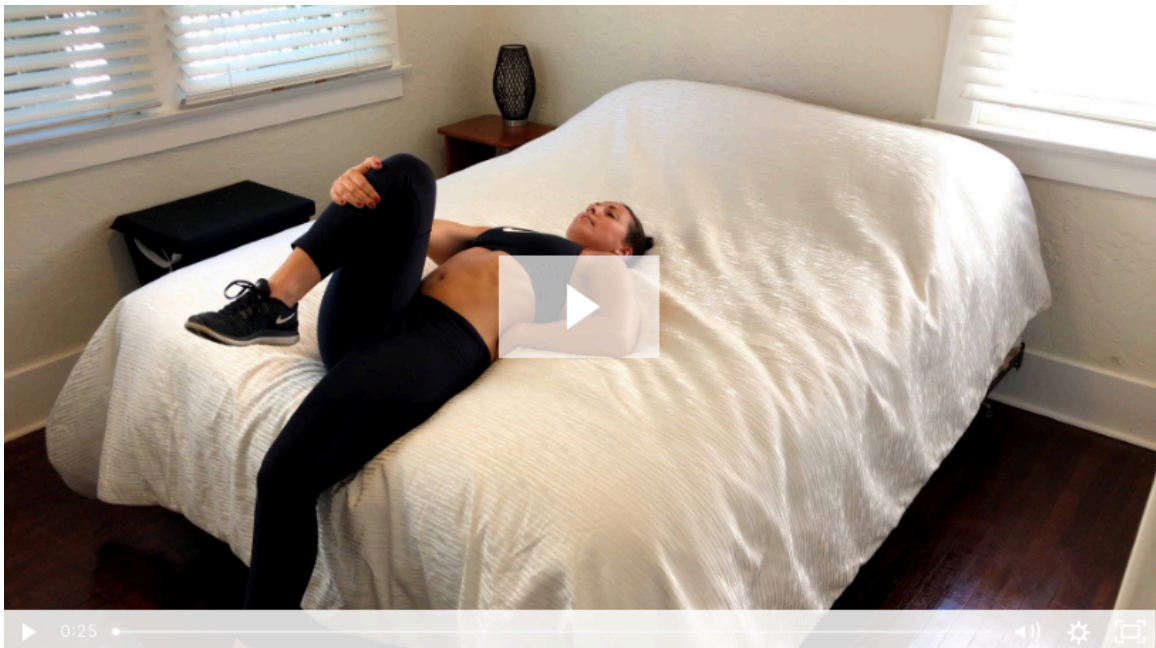
Exercise 3: Thomas Stretch

Instructions

1. Start out lying on your back.
2. Flex one of your hips and hold on to it with your hands, ensuring that you maintain neutral alignment at the lower back.
3. Let the other leg hang off the bed with the knee bent.
4. Breathe quietly in this position feeling as if the muscles in the thigh relax.

Tip: If necessary, bend your knee on the down leg for more of a stretch sensation.

Prescription: Hold this position for 2 minutes on each leg, taking periodic breaks as needed.



Watch Video: <https://youtu.be/yNUt8YjzLfU>

Exercise 4: Walking Lunge

To perform this exercise properly make sure you maintain your balance. Maintaining good alignment at the spine is your main concern.

Instructions

1. Take a step forward into your lunge position. Keep your back knee relatively straight.

Tip: For more of a stretch sensation press your arm overhead bend slightly away from the hip being stretched.

2. Take a step forward and perform the same motion on the opposite side.

Tip: When going into your lunge make sure your front knee stays between your heel and your toes. If you are feeling unsteady try resting your hand on an object.

Walking Lunge Prescription:

Reps: 5 to 10 on each side

Time: 3 to 5 second holds



Watch Video: <https://youtu.be/0HVhNqDdr98>

Exercise 5: Nerve Flossing

Recall that stretching the hamstrings often irritates a very sensitized Sciatic nerve. To help calm the nerve down and relieve some tension in the hamstrings we perform nerve flossing instead.

When flossing your teeth, the goal is clearly to remove any gunk between your teeth. With Nerve Flossing we try to clear up the gunk that is pressing on the nerve. In this case that would be disc material.

As you do this picture one long nerve that runs from the back of your head, all the way down to the bottom of your foot. You are **NEVER** putting tension on the nerve; you are gently flossing the nerve by putting tension on one end as you take tension off the other end. This exercise should not produce pain and in most cases should not even produce a stretch sensation.

Instructions

It is critical that you maintain neutral lower back posture throughout the exercise. Sit on a surface that allows you to swing your feet freely underneath you.

1.Start in a seated position with a neutral back posture.

Tip: You can place your hands behind you to help support yourself.

2.You will begin by looking up while at the same time straightening the knee and flexing the foot and toes toward the sky.

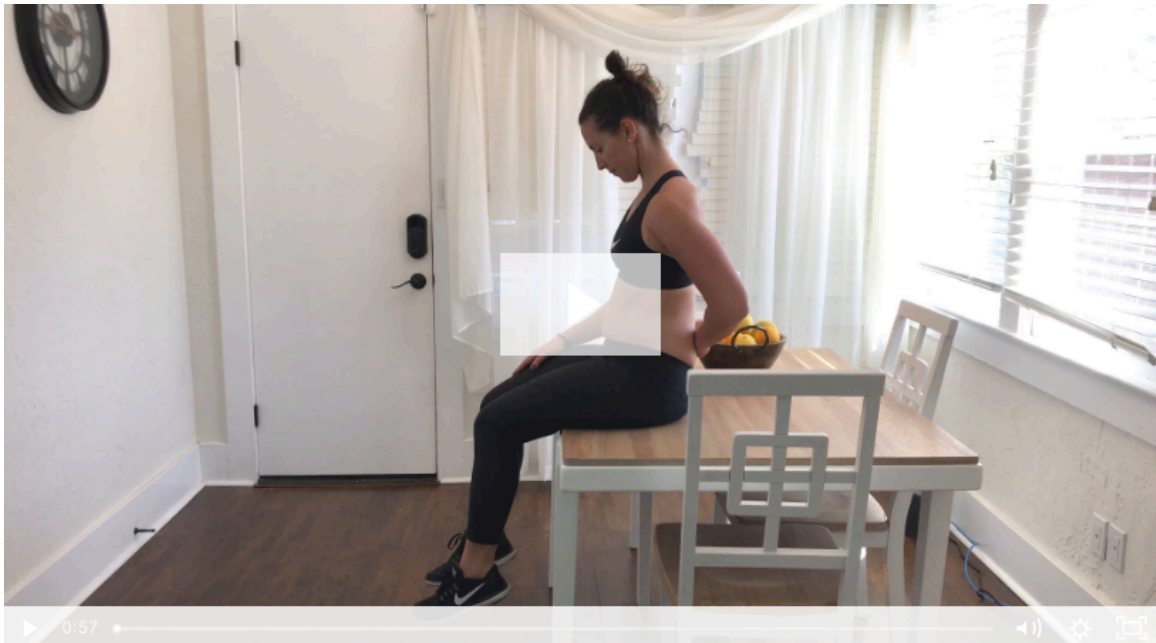
3.Next you will look down by just moving at the neck while at the same time bending your knee bringing your foot underneath you.

Nerve Flossing Prescription:

Reps: 8 to 10 reps

Time: perform each rep in a slow controlled manner.

Frequency: if this does not increase pain perform every couple of hours.



Watch Video: <https://youtu.be/cogslpuHs1k>

Six

Reset Your Posture

It is time to Reset Your Posture! Performing these exercises for your upper back and neck can help you restore normal posture. In turn, taking a load of stress off your lower back!

Recall that a **Rounded Upper Back** and **Forward Head Posture** can result in increased tension at the lower back muscles. This increased tension results in more pain.

On a daily basis you should be performing the exercises below to hit the reset button.

Exercise 1: Shoulder Depression with Chin Tuck

Recall that we want to avoid a forward head and forward shoulder posture. This will increase pain and stiffness at not only the neck and shoulders, but the lower back as well. The goal is to have your ear, shoulder and hip in one line.

Instructions

1.Start out by interlocking your fingers with your hands behind your back.

2.Push your hands straight down toward the floor.

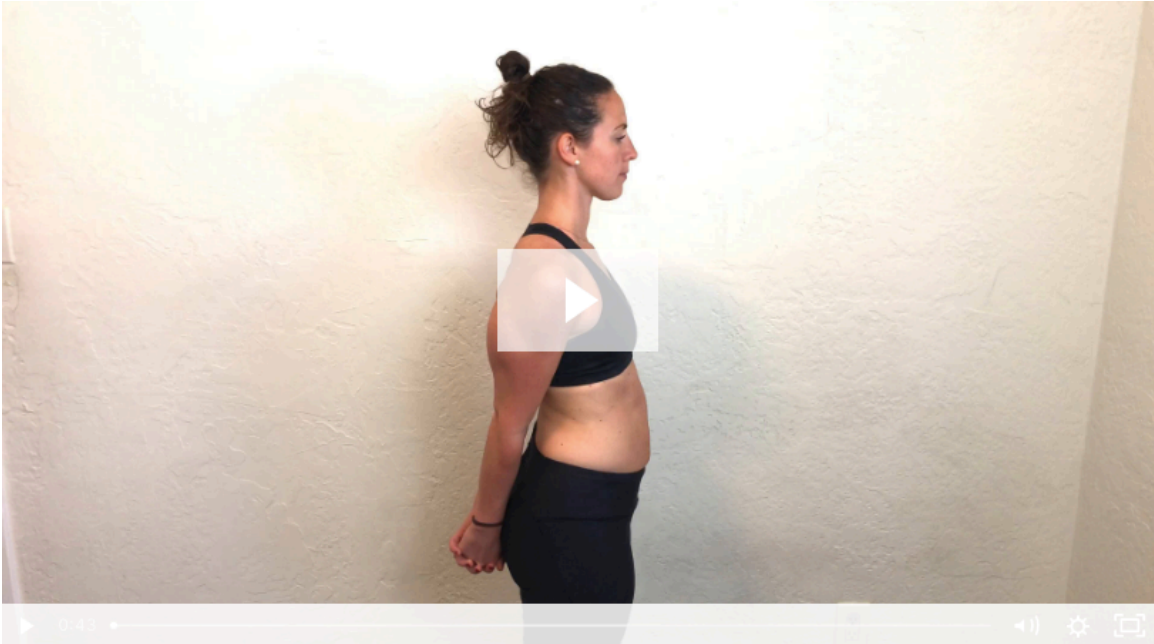
Tip: Feel like your shoulder blades move away from your ears and tilt backward slightly. Alignment at your lower back should not change.

3.From here retract your head backward, feeling as if your neck is flattening.

Tip: Do not tip the chin down or up during this motion.

Shoulder Depression with Chin Tuck Prescription

While pushing the hands down perform 5-10 chin retractions for 3-5 second holds



Watch Video: https://youtu.be/MFcRi1sDv_E

Exercise 2: Seated Upper Back Mobilization

Recall that upper back flexibility is important for reduction in pain throughout the body. Poor posture often leads to a stiff and rounded upper back, which places more tension on the lower back. This exercise should be used regularly as a "reset" for poor posture.

Instructions

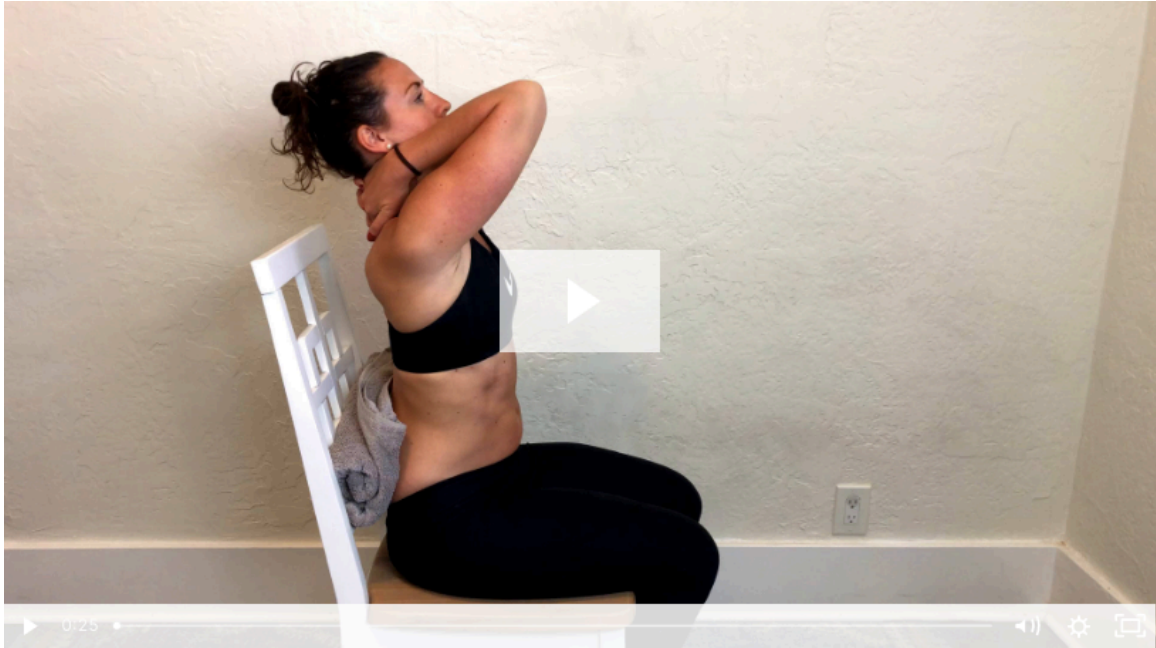
1. In a seated position, place your fingers on the bony prominences in your upper back with your elbows pointed forward.

2. While maintaining your low back alignment, inhale as you extend at just the upper back and exhale as you return back to the starting position.

Tip: You should feel motion occurring at the level of the spine where your fingers are and slightly below that.

Seated Upper Back Mobilization Prescription

Perform 8 to 10 repetitions, as needed.



Watch Video: <https://youtu.be/wwtcCZje9Cg>

Seven

Advanced Back Strengthening

Someone once said, *"Every exercise is a core exercise."* That is because no matter what exercise you are doing you should be working on keeping a **neutral lower back position**. As we discussed in the Core Science video, **the lower back is meant to RESIST rotation and bending**.

Each of the exercises in this section are designed to challenge the muscles on the front, side or back of the trunk to maintain a neutral lower back posture.

When selecting exercises or classes in the future you need to ask yourself, ***"are these exercises in line with the core principles I have been taught?"*** If not, you need to modify the exercise or replace it.

Sadly, many people go back to what they are familiar with... **Despite what they learned in this course they will sacrifice form for more reps, a good burn or a nice sweat**. In return they receive a flared up back and another month sentence of gentle walking and aqua therapy (ugh!).

DON'T let this cycle continue! You have the tools and knowledge to prevent this from ever happening again.

The exercises in this module are only the tip of the iceberg. There is a very simple equation that you can use to make exercises more difficult as you progress.

To increase difficulty ADD:

+ Unstable surfaces (ball, trx, etc.)



+ Movement (challenge the back to stay in a neutral position by creating movement at the shoulders or hips)



+ **Add Reps or Seconds** (when you are no longer in pain you can start adding seconds and/or reps to your exercises. Remember, endurance is the key to avoiding lower back pain).



To watch videos of each exercise go to:

Patient Portal: <https://mikeinfantino.medbridgego.com/>

Enter the Access Code: **FEY4VRC7**

Module 5

Bonus Content

One

Commonly Asked Questions

Posture Commonly Asked Questions

I have been told to flatten my back in my workouts (common in Pilates and Core Exercises), are you saying this could be doing more harm than good?

Answer: A flattened back position is actually a rounded back position. Recall that at least a small degree of arch (hollow) should be present in the lower back. This flattened posture places **increased stress on the front of the spine and disc, leading to more pain and pressure on the sciatic nerve.**

In many cases this can exacerbate a disc herniation or bulge making your sciatic symptoms worse. Many people will feel temporary relief in this flattened posture because of a stretch reflex generated by the back muscles. That “feel good” sensation only lasts about 15 minutes and results in hours of pain later on.

WRONG (Flattened back posture)



RIGHT (Notice the small hollow in her lower back vs. No hollow in the top picture)



What about lumbar support... should I use a pillow or lumbar roll to help maintain the arch in my back?

Answer: The short answer would be YES. The majority of people benefit from the use of some degree of arch support in the lower back. This tends to keep people out of a rounded, compressed spine posture. It also helps people relax their back muscles while sitting, which can reduce tension in the back muscles. And PLEASE use your backrest if you have a desk job.



What about stand up desks? I was told that I should be standing more often.

Answer: Variety is a wonderful thing. I am a big proponent of modifying your posture routinely. Every 30 minutes (at most) you should go for a short walk or at the least stand up, move around and do some of the exercises provided in this course, time permitting. If working at your computer from a standing position is an option just ensure that you are standing in good posture [refer to the *Standing Section* of this course]. If standing increases your pain please refrain for now. The Big Takeaway is not that sitting is inherently bad or that standing is better. Variety is good.

What about posture shirts?

Answer: If the posture shirt helps reinforce better alignment at your lower back then sure. But what worked for your friend will not always work for you. Some posture shirts may actually reinforce a position that is uncomfortable for you.

How can I modify my posture while in my car to avoid sciatic pain?

Answer:

1. Use some form of lumbar support to maintain a neutral spine posture.

2.Adjust the height of your seat and distance from the steering wheel to take tension out of your hamstrings. Sitting too close can actually place excessive pressure on the back of your leg, which may also irritate the Sciatic nerve.

3.Recline your seat slightly to reduce compression on the Sciatic nerve. In some instances, people benefit from placing a soft cushion between their seat and the leg to offload pressure on the sciatic nerve.

Exercise Commonly Asked Questions

Do I need to switch to "low impact" exercises to avoid back pain?

Answer: Many people mistakenly sentence themselves or are sentenced to a lifetime of “low impact” exercise following a back injury.

Your injury does not mean you need to regress to aquatic therapy and speed walking for the rest of your days. More low impact exercises like walking can be very therapeutic early on. However, the long-term goal is to learn how to adopt positions and movement patterns that are healthy for the spine. Many professional athletes, including weight lifters, fighters and runners to name a few have returned to their sport following a back injury better than ever once they have learned proper back health principles.

My doctor wants me to stop working out. Will resting for a couple weeks do the trick?

Answer: Rest can be helpful... but only in the right doses.

A back injury is not an excuse to sit on the couch all day or stay in bed, nor is it a time where you should be pushing through pain. Making either of these mistakes will make your back and Sciatic nerve ultra sensitive! Your back goes from a wounded warrior to a hormonal teenager. Refer back to the Pacing section for a more clear understanding of how to progress. It is always helpful when I tell someone to pretend they are a **Million Dollar Athlete**. It forces them to become very calculated with how they go about their rehabilitation.

Should I try Yoga, Tai Chi, Pilates, Water Aerobics, and Swimming etc to help with pain relief?

Answer: Many of your friends or even medical providers may have recommended one of the options above. These generic, catchall solutions are commonly thrown at complaints of Back pain and Sciatica.

... PLEASE be careful. This is a very elementary way to address your pain. It is the equivalent of randomly changing parts in your car when you hear a noise.

Our goal is to minimize stress at the back and the Sciatic nerve. Many of the movement practices and classes listed above actually encourage low back rounding and excessive strain at the back and sciatic nerve.

When treating Back pain and Sciatica, the best thing you can do is to **AVOID** movements that trigger your pain and **practice pain free movements** with good alignment at the lower back.

On occasion I will incorporate Yoga, Tai Chi and/or Pilates exercises for those who enjoy these movement practices. However, I will ensure that certain exercises or postures are modified in a manner that does not trigger symptoms.

What about Swimming?

Answer: Free stroke swimming, assuming good form, does not tend to overly stress the lower back. However it may impose some twisting at the lower back. It is unlikely to trigger Sciatica symptoms in most people. You may find that starting with just an arm stroke or just kicking with a board may be more tolerable because of reduced motion at the lower back. Swimming can be a great way to re-engage in cardiovascular exercise with less pain but it is **NOT** a cure for Sciatica.

Are you saying I should never stretch? I really enjoy stretching and it is something I look forward to. It helps me relax and reduce muscle tension.

Answer: No, I am advising you to be very gentle with your stretching right now. We just need to be careful stretching early on when your pain at the Back and/or Sciatic nerve is more intense. Angry nerves **DO NOT** like being stretched.

Refer to the **Nerve Flossing Exercise** in the Hip Mobilization section to learn a safer way to relieve tension in your legs. Nerve flossing is a safe and gentle technique that keeps the nerve from getting angry if done well.

Following an injury we need to switch the focus to re-strengthening or stabilizing your lower back. Otherwise, you will never be able to tolerate movements that cause excessive stress and strain on the lower back.

I know someone that did crunches their whole life without back pain and they think it was the key to not having back pain. Explain that?

Answer: People are built differently. Some spines can tolerate more stress than others. Thinner spines can bend more easily without stress, similar to thin tree branches. Thicker spines are more prone to breaking. The fact that your friend's lower back did not sustain an injury does not mean that crunches and repeated low back twisting are good; it just means that they were blessed with a more resilient lower back.

What's even more interesting is that people will naturally gravitate toward activities they are good at or "built" for. Flexible people tend to be "Yogi's" and stiff people find themselves weight lifting. Whether your spine is more like a thin branch or a thick tree trunk, we still need to stabilize it after an injury.

What about Pilates? We do a lot of "core" strengthening in my class.

Answer: Pilates can be great for developing core endurance, hip strength and hip flexibility. The one-shortcoming is that many teachers will encourage a flattening of the spine with core exercises. In a lot of classes the spine is also placed in rounded and twisted spine positions, which is the exact recipe for irritating an already irritated back. If you are experiencing Sciatica some of the postures or moves performed may cause excessive tension on the Sciatica nerve. Resulting in more pain during your class OR in the hours following.

I was told that my back pain is secondary to my weak glutes (butt muscles)?

Answer: Weakness in the gluteals is a common finding in those with back pain. The low back muscles, abdominal muscles and gluteal muscles are critical for preventing injury at the back. However, just strengthening your glutes alone with repeated clamshells and bridges will not magically resolve back pain. Just as simply training your "core" muscles will not magically

resolve back pain. Don't get me wrong, it may help some but you need to see the big picture to find relief. **This starts with eliminating the postures and movements that are irritating your back and Sciatic nerve.**

Other Commonly Asked Questions

How do you feel about the chiropractor or massage?

Answer: It depends. Many chiropractors are known for spine manipulation. Spine manipulation and massage have been shown to be more effective in the first few weeks after your initial injury. **With more chronic injury these treatments alone are not very successful.**

Successful outcomes and prevention of future injury requires an understanding of how to avoid postures and movements that sensitize your Sciatic nerve. This includes a more complete understanding of the cause of Sciatica, as well as spine sparring postures and movement strategies. **Only receiving a spine crack or massage is doing you a huge disservice.**

Will _____ (fill in your favorite passive treatment) help resolve my back pain?

Examples of Passive treatments: ultrasound, heat, ice, tens units, laser therapy, traction, spine manipulation or mobilization, fascial release, KT tape, etc.

Answer: In most scenarios these treatments will provide some form of relief. However, it is not addressing the problem! To think that these treatments alone will be the answer is a sign that you do not fully understand why you are having pain. Sciatic pain that is caused by a disc injury requires you learn how to position yourself and move in a way that does not stress the site of injury. For long-term improvement, it also requires you to perform exercises that strengthen you back and restore flexibility in your hips.

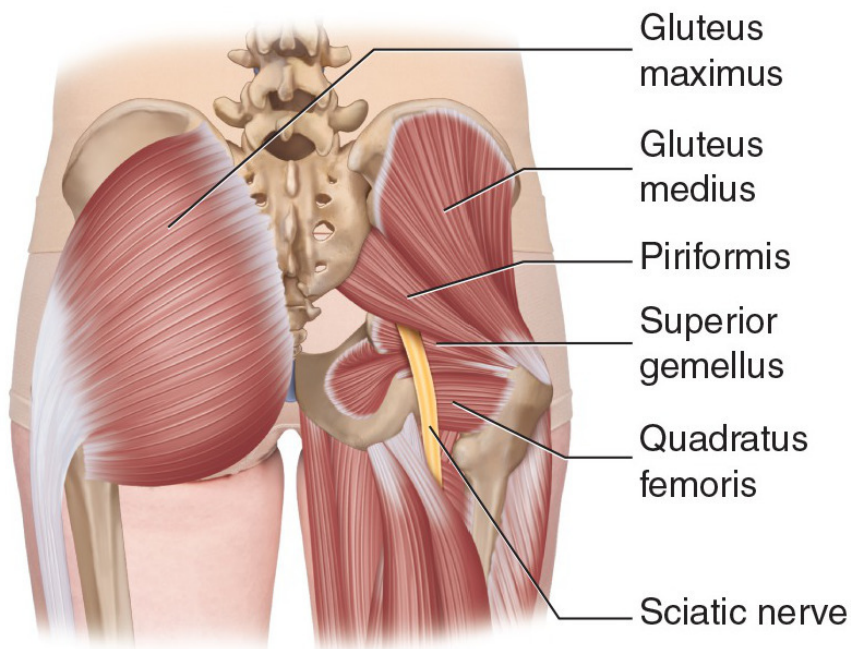
I was told that my Sciatica is due to *Piriformis Syndrome*. What is the difference?

Answer: Piriformis Syndrome is often over diagnosed and relatively rare. Medical providers will mistakenly refer to sciatica as Piriformis Syndrome when people are complaining of radiating pain down the leg.

Piriformis Syndrome is when the Sciatic nerve becomes irritated secondary to compression from the Piriformis muscle (see below). Spending your day

stretching the Piriformis, or butt muscles, will likely not be the answer to your pain. It may bring temporary relief because of the relaxation response that comes from stretching.

It is important to note that the muscles in our butt can get very tight, especially if we sit on them all day. Also keep in mind that sitting alone can irritate an already irritated Sciatic nerve since we are compressing it. It is not wrong to stretch the Piriformis for that reason. Sometimes people do get complete relief from stretching and massage to the Piriformis. If this is you, or a friend, I would argue that what you were experiencing was actually referred muscle pain from irritation and stiffness at the Piriformis muscle and/or other butt muscles rather than Sciatica.



My doctor told me I need to lose weight. Will this resolve my symptoms?

Answer: It may help. Increased weight can impose increased forces on the lower back especially with poor posture and poor movement strategies. Once again, resolution of pain will require you to make healthy low back decisions. **Weight loss alone will not be the answer.** I also think it is lazy and negligent for a medical provider to ONLY advise you to lose weight without going through a proper examination.

Should I use Heat or Ice?

Answer: For Sciatica, you will likely be choosing heat. The only time I would not use heat is when you see that a region of your body is actively swollen and red. We do not want to draw more fluid to that region. In many instances, Sciatica will result in increased tone or stiffness local to the back and hamstring muscles.

If this sounds like you, heating the back muscles for 10-15 minutes may help reduce muscle stiffness. Recall with Sciatica, we do not want to aggressively stretch the hamstring or round the back because of the stress that this puts on the Sciatic nerve. Heat can be helpful for relaxing muscles without irritation to the Sciatic nerve.

Will orthotics help?

Answer: Shoes with more foam or support may help but usually in a population that is required to be on their feet all day for work or with longer distance running.

Someone told me my leg length difference and my spine/pelvis being "out of whack" is contributing to my symptoms. Is this true?

Answer: Right and left sided differences in muscle length or tension can create the illusion that one leg is longer. Leg length differences are normal findings in everyone, even people without pain. Before we start stretching muscles we need to STOP the pain. This is why we save the stretches for the end of the course.

Should I use an inversion table?

This is a common question. I would recommend that you begin with the **Decompression Exercise** in Section One if you are in a lot of pain. If you have access to an inversion table that you would like to try I would recommend the following guidelines below to ensure safety and prevent flare ups in pain.

The ONE Minute Inversion Prescription

Session 1:

1. Start with a **45 to 60 degree tilt**.
2. Perform a **1 minute hold** and then return to an upright position, resting for 15 to 30 seconds.
3. Repeat as long as you do not feel an increase in symptoms.

The goal is pain relief during this activity with minimal discomfort post treatment. **Do not do more than 5 minutes of inversion on Day 1.**

Future Sessions:

Add 1 minute to each session working up to no more than 10 minutes. Inversion can be done multiple times per day if needed, but I would recommend performing only 1 session the first day that you attempt this to see how you respond. As you progress you can also gradually increase the degree of tilt in the table.

**Many rehabilitation professionals will have traction tables in their clinics. These can be used as well. I would recommend you chose a competent provider that will ensure an appropriate setting based on a thorough physical examination.*



Two

Making Sense of Medication & Myths & Misconceptions About Medical Imaging

Making Sense of Medication: Common Questions.

Is it ok to take Pain Killers (Opioids)?

Answer: This is a tricky question. Opioids have received a lot of bad publicity lately and for good reason. They were being distributed irresponsibly and in unnecessary quantities.

In some cases, short-term use of opioids may be appropriate. (Oxycodone, Hydrocodone, Tramadol, etc.). However, the goal is to use these medications sparingly to allow you to engage in a rehabilitation program. Long term use of opioids can result in physical dependence and addiction, as well as organ dysfunction. More common side effects with even short term use include nausea, vomiting, sedation, dizziness and respiratory depression.

Research has started to show **hyperalgesia** with opioid use, **which is an increased sensitivity to pain**. This basically means that it requires less movement or stress to trigger your symptoms.

Is it ok to take Gabapentin or Lyrica?

Answer: Gabapentin and Lyrica are anti-epileptic medications that are commonly used to treat **seizures** and **nerve pain**. These medications can be effective for dulling pain in the acute phase. With increased regulation of opioids we are seeing this medication prescribed in much higher quantities with poor regulation.

Similar to opioids, the goal is to use these medications sparingly to allow you to engage in a rehabilitation program. Use of these medications can also result in a host of side effects, such as dizziness, drowsiness, loss of balance and coordination, changes in memory and concentration, tremors, and weight gain to name a few.

***Why does my Physician want me to take a steroid pack
(Methylprednisolone, Medrol, etc.)?***

Answer: Unannounced to most people, disc bulges or disc herniations alone **do not always** trigger sciatica. Many people will unknowingly have a disc herniation without any symptoms, as we discussed in the MRI section (see bonus material). **Disc injury in combination with inflammation** local to a nerve root is often the culprit. The steroid is an attempt to stop the inflammatory process. **In most cases, if you can shut down the inflammation you can shut down the pain.** Making sure the pain does not return is dependent on your compliance with this course.

So you are saying I should take the steroid pack? What about an epidural injection?

Answer: Steroid packs or local steroid injections in the right area (epidural injection) can reduce active inflammation. However, the effect of these treatments will be short lived without a rehabilitation approach that identifies and removes pain related triggers. It is like trying to put out a fire while pouring gasoline on it at the same time. This is a decision best made by your medical team. I would recommend that your Physician and Physical Therapist speak before an epidural to make sure they can agree on the appropriate spinal level and location of the injection.

Who can provide me with an epidural injection?

Answer: Request that this procedure is done by a fellowship trained Interventional Pain Medicine Physician. This procedure should also be done under Fluoroscopic Imaging to ensure correct placement of the needle. Correct placement of the needle will be dependent on a thorough physical examination from a medical provider in combination with an MRI. The physical examination will help your medical provider figure out which imperfection on your MRI is responsible for your pain.

What about muscle relaxers (Flexeril, Celebrex, Robaxin, Zanaflex)?

Answer: When patients report spasms many physicians will prescribe muscle relaxers. However, spasms are often a result of sciatic nerve irritation and/or local spine instability following injury. The spasms are often a symptom not the cause of your pain. From clinical experience, many patients do not report symptom relief with these medications. Drowsiness, dizziness and fatigue are common side effects associated with muscle relaxers.

What about non-steroidal anti-inflammatories (NSAIDs) like Advil or prescribed NSAIDs like Mobic or Naprosyn?

Answer: Studies and clinical experience have not shown NSAIDs to be effective in resolving sciatica related pain. These medications have been prescribed less due to the risk of heart attack, stroke, and stomach and bowel side effects.

I received a referral for Pain Management. Could this be helpful?

Answer: It really depends on your presentation and the Pain Management clinic that you were referred to. Passive treatments that solely provide injections or burn nerves (nerve ablation) are not long term solutions. The

effect of these treatments will be short lived without a rehabilitation program that identifies and removes pain related triggers.

Myths and Misconceptions About Medical Imaging

Misconception: *"An MRI or CT Scan will tell me **exactly** what the problem is."*

Fun Fact: MRI and CT Scan are best used when patients are complaining of **Red Flag Symptoms** (see *Module One*) and those who have failed a conservative care approach. Unfortunately, many people are given an inappropriate rehab program or they do not commit to their rehab program thinking that quicker failure equals a quicker MRI.

The MRI can be useful in helping clinicians determine what more invasive procedures may be necessary {i.e. epidural injections, discectomy, laminectomy, fusions}. It can also be helpful in identifying more serious spine issues like tumors or infections that could be generating your symptoms. Please keep in mind that these symptoms are **extremely rare**.

Fun Fact: In those who receive early medical imaging there is **increased risk of unnecessary surgery**. Also, with CT Scan and X-ray you are exposing yourself to high levels of radiation.

Fun Fact: A good physical exam by a medical professional is required to determine if the MRI findings are actually correlated to your symptoms.

"Huh?!?"... **Most of us will have imperfections on our MRI even if we do not have pain.** Normal wear and tear on imaging does NOT mean you are going to have pain. A common misconception is that tissue injury or wear will result in pain.

As you will see below, diagnoses like “degenerative disc disease,” arthritis, disc herniation, spondylolisthesis and bone spurring are commonly acquired with age and seen in those with and **without pain.**

Degenerative disc disease was given quotations because the name does not accurately describe what is taking place. **It is not a “disease”** per say. Rather, as discs lose fluid following injury or naturally with time they begin to look gray and more narrow on imaging. **This generally happens to everyone with time, just at different rates.** This "degenerative" process can actually be beneficial because it helps stiffen the spine creating more stability.

More Fun Facts About Medical Image Findings

- 2/3 people over the age of 70 have pain-free rotator cuff tears (Milgrom, Schaffler et al., 1995)
- 50% of people with knee arthritis have no reported pain (Bedson and Croft, 2008)
- 35% of collegiate basketball players without reported knee pain have notable abnormalities on MRI (Major and Helms, 2002)

- 30% of those 20 years of age show disc bulges without complaints of pain (Brinjikji et al., 2015)
- 84% of those 80 years of age have disc bulges without complaints of pain. (Brinjikji et al., 2015)
- In one study, 98 volunteers that had never had back pain were asked to have an MRI of their back. 52% of the volunteers had at least 1 disc bulge at their lower back. (Jensen, MC et al, 1994).

Three

"Do I Need Surgery?"

***Disclaimer:** By no means is this section a justification for surgery or against surgery. These are guidelines that most medical doctors will use. The decision to have surgery is a serious one and should be discussed with a team of medical providers to see what the best option is for you.*

Situations that warrant stronger consideration for surgery:

1. Fractured bone following trauma to the spine
2. Severe and worsening neurological signs (loss of control in bowel/bladder function, numbness in saddle region, loss of reflexes in limbs).

Situations that do not warrant surgery:

1.You have not tried conservative treatment yet.

The foundation of a rehabilitation program would begin with a good evaluation that identifies your pain triggers and educates you on how to avoid them. This also includes postural and movement training, and personalized exercises that help prevent stress at the lower back. You can combine these treatments with hands on soft tissue care [i.e. massage, acupuncture, chiropractic, physical therapy, etc.].

2. Your physician is recommending surgery purely based on an MRI. WITHOUT having performed a thorough physical evaluation.

3. You have not looked for a second or even third opinion.

4. You have some good days and bad days.

If you have days without back pain or radiating leg pain you need to learn how to identify what is triggering your symptoms. This course can be helpful, especially combined with good medical care.

5. Your pain is still in the acute phase (less than 3 months) *in the absence of any red flag symptoms.*

See section 1 [Red Flags].

6. You have not attempted “Virtual Surgery” yet [Term coined by Dr. Stuart McGill].

“Virtual surgery” is an effective strategy for those not seeing improvements. Following surgery, it is sometimes unclear whether the surgery or the rest and restrictions put in place after surgery are to credit for positive outcomes. **Essentially, you are given bending, lifting and twisting restrictions, as if you were wearing a spine brace/belt.**

Back Belts are designed to prevent the lower back from bending or twisting (you do not need to purchase a spine brace, but in some cases it can be a good reminder). **During this “virtual surgery” you are not allowed to perform a stretching or exercise routine.** You can participate in daily walks, but limit them to no more than 10 minutes at any one time. Walks should NOT trigger

any pain. If so, reduce the distance of the walk. The goal is to minimize stress at the lower back and Sciatic nerve to help reduce inflammation.



Back Precautions

After Back Surgery



Do the work of getting up with your legs. Keep your back straight.



Do not twist at your waist.



Do not bend at your waist.



Do walk. Activity will ease your pain and help with healing.



Do not lift anything that weighs more than a gallon of milk.





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Four

The Best Sleeping Posture & Pain Free Sex

What Is The Best Sleeping Posture?

YOUR best sleeping posture really depends on your preferences and your body type. Experiment some to see what works best for you. Most people will not do well with futons, overly soft mattresses and.... waterbeds (not sure if I really needed to mention that one).

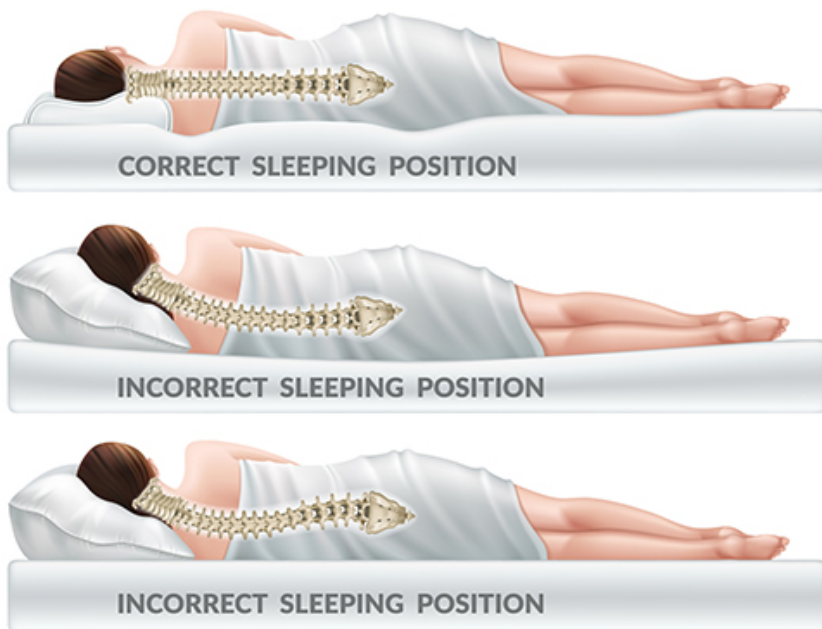
Fun Fact: "Sleep Hygiene" is critical for a good night's sleep. The deeper your sleep the less inclined your brain is to experience pain. I know it is a double edged sword, but good sleep should be your #1 focus. Quality sleep helps ramp down pain signals throughout the day, where as sleep deprivation can ramp them up. If you are not familiar with "Sleep Hygiene" tips please refer to the CDC's website.

Stomach Sleeping

As long as lying on your stomach in Module 1 (*Tummy Time*) did not cause pain this may end up being a beneficial position for you. You can place a pillow underneath your hips to make this position slightly more comfortable.

Side Sleeping

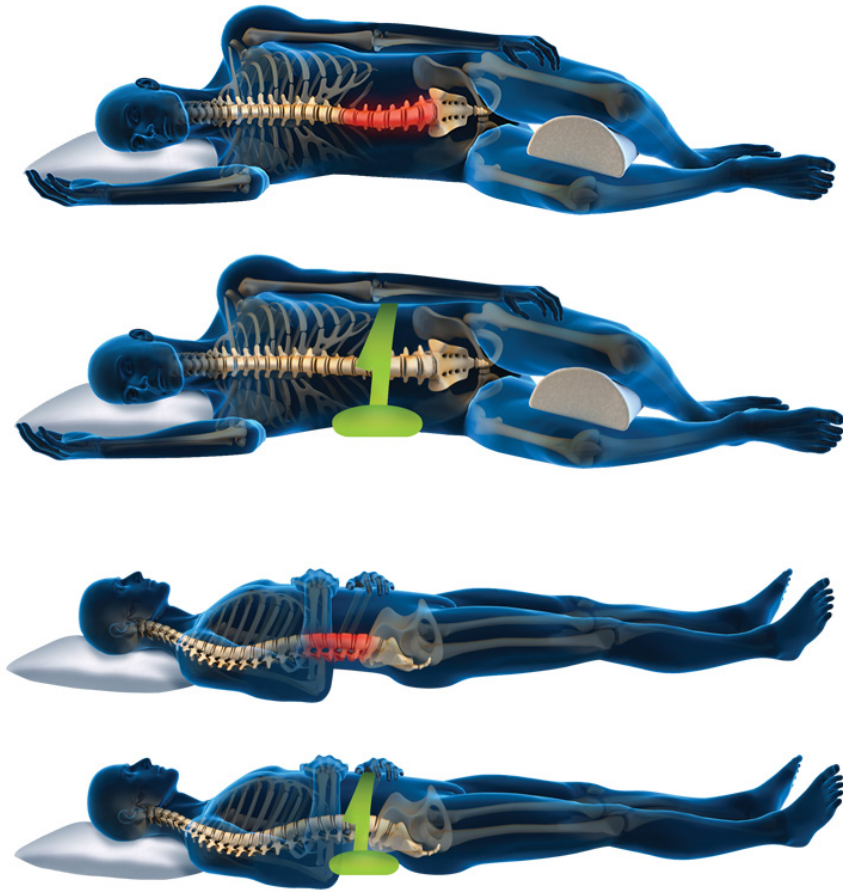
You want to ensure that the lower back is not being placed in a rounded posture. You can sleep in the fetal position, but try to keep your lower back in a neutral posture. For those with wider hips and more curves you may need to place a pillow between your side and the mattress to prevent side bending at the spine. Placing a pillow between the knees can help prevent twisting at the lower back.



Back Sleeping

This does not tend to work for people with larger "behinds" and more curves. If this is your preferred sleep posture you may want to place a memory foam mattress cover over your bed if it is firmer. For those with more curves,

overly firm mattresses will keep the spine in a more arched (curved) position, which can be uncomfortable. You could also try placing a pillow between your lower back and your mattress to support your spine curvature.



Pain Free Sex

Sex. This is a topic rarely mentioned by patients in our initial evaluation. Still, I know it is a primary concern. Not being able to engage in sex because of pain can result in a great deal of personal stress and relationship stress. Going through the entirety of this course will give you a better understanding of which postures generate your pain. So please don't just skip right to the good stuff!

The recommendations for pain free sex are nearly identical to the recommendations we would provide for the majority of activities you engage in. That sounds weird when I say it out loud, but stay with me!

Knowing how to maintain a neutral back position and how to move from the hip joints rather than the low back is key. Adopting positions that place little stress on the Sciatic nerve will also be helpful.

To simplify this I will break sex down into two roles:

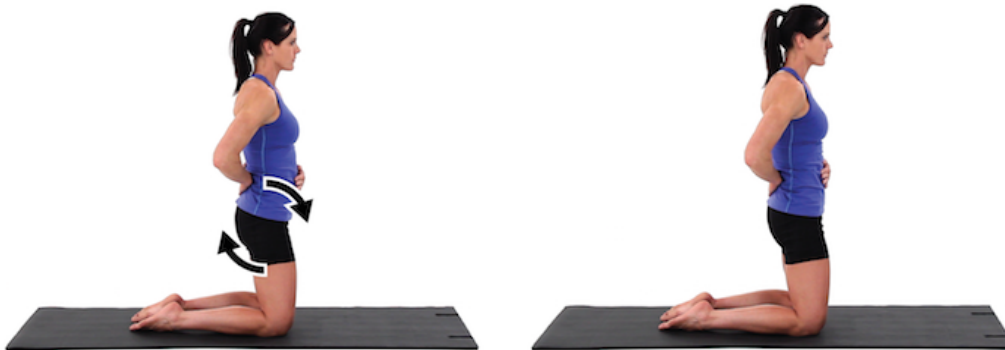
1. *"The Mover and Shaker"*
2. *"The Taker "*

Key Concepts for *"The Mover & Shaker"*

The person who is doing most of the work needs to ensure that they are moving from the hip joint. Similar to the bridge exercise (see the Hip Mobilization module) you should be moving from the hip joints, not from the

low back. Many people are performing a posterior pelvic tilting motion that is putting excessive stress on the injured spine and nerve.

Incorrect: Pelvic Tilt Error



Correct: Hip Thrust Motion



Key Concepts for "*The Taker*"

You're primary concern is finding a neutral supported lower back position. If lying on your back make sure you support your lower back with a pillow or towel roll. If on your side, ensure that you are not excessively rounded or side bent at the spine. You can also use a pillow or towel roll to support your curves in this position. The same goes for standing and sitting positions. You must keep good alignment at the spine.

Key Concepts for Both People

You need to respect the alignment of the low back. Remember, we want to maintain a relatively neutral lower back position. If you are twisted and contorted at the lower back, especially under "force" you are asking for trouble. Movement should be coming from the hip joint, not the lower back (avoid the dreaded pelvic tilt/crunch motion).

Sciatic Nerve Considerations

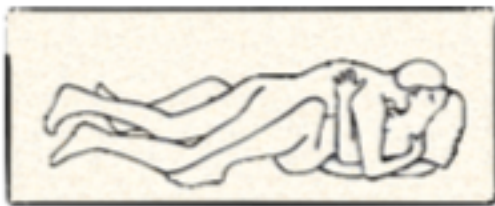
Postures that involve a straight leg position on your affected side will likely aggravate the Sciatic nerve. Try to use positions where the knee is bent on the affected side to relieve the nerve pain.

The following tests are used to purposely place tension on the sciatic nerve to recreate your pain. If the positions you are using in sex look anything like this you should modify them for the time being.



Sex Postures

By no means is this an expansive list of positions, but notice how each position respects a neutral spine posture for both parties. These positions all avoid a rounded lower back posture and place very little tension on the sciatic nerve.





Five

Returning To Running Guidelines

Running is not a necessary progression, but here is some guidance if this is something you would like to return to.

We will not dive into running mechanics in this course. This is something that would require more time and attention. However, the spine sparring techniques taught throughout this course and in the walking section should be respected. The exercises prescribed will also be helpful with returning to pain free running.



Return To Running Guidelines

1. Once you can perform 30 minutes of walking, 2-3x/Day attempt a longer walk.
2. When you have the ability to perform longer walks for a 2 weeks without any increase in pain attempt a **slow short jog**.
3. If this is tolerable continue jogging **three more days** followed by **five days of rest**. Biomechanist, Dr. Stuart McGill states that the goal of this extended break is to allow for healing and stiffening of the tissues around the spine to help with stabilizing the spine.
4. If you want to work jogging into your weekly routine take a week off from running every two to three weeks.