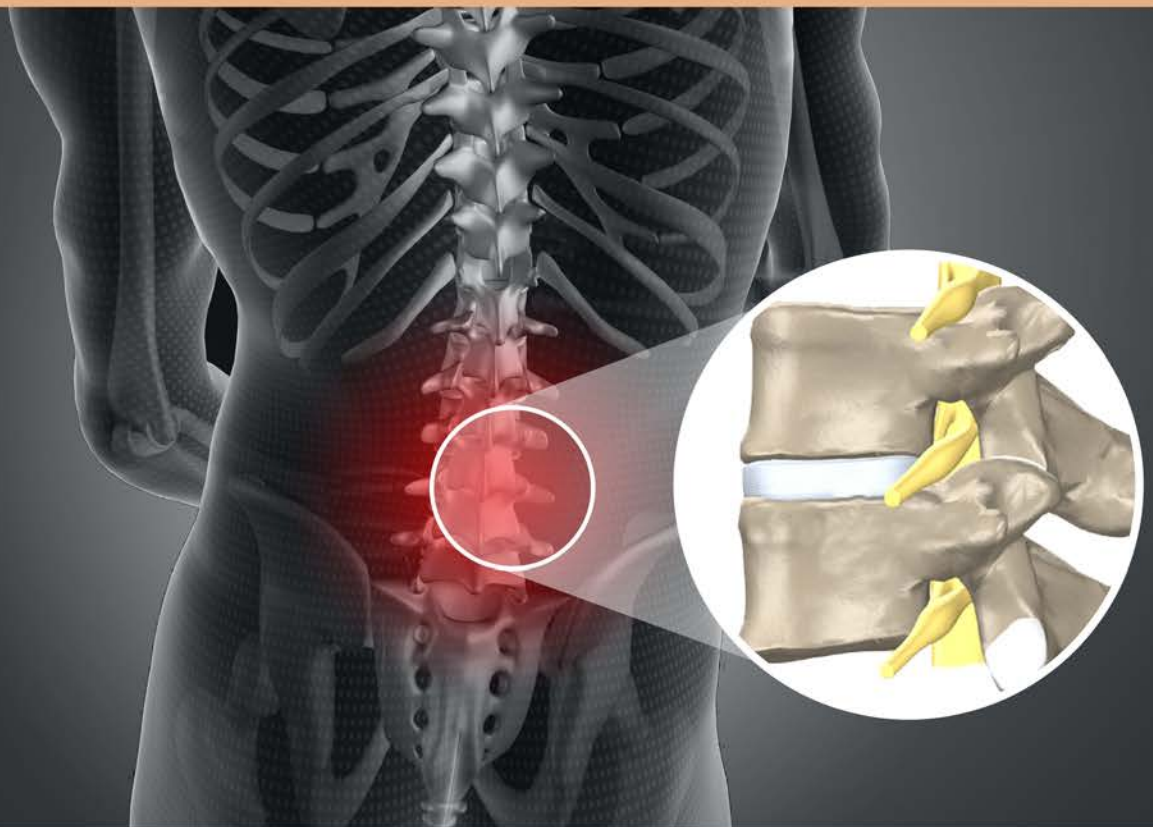


Alleviate that nagging pain without medication!

7 Tips to Help You Help Yourself with your **LOWER BACK**



Ironhorse PT & Pilates
Optimize Your Body's Everyday Performance.

Table of Contents

FOREWORD:	2
<u>7 TIPS TO HELP YOU HELP YOURSELF WITH YOUR LOW BACK PAIN</u>	2
1) REST	2
2) MOVE	3
3) ICE OR HEAT	3
4) SELF MASSAGE	3
5) EXERCISE	4
6) LUMBAR SUPPORTS	4
7) GET SOME PROFESSIONAL ADVICE!	5
<u>EXTRA, EXTRA! READ ALL ABOUT IT!</u>	5
1) MUSCLE STRAIN	6
2) JOINT SPRAIN	6
3) DEGENERATIVE DISC DISEASE	7
4) DISC BULGE/HERNIATION	8
5) SCIATIC NERVE COMPRESSION	9
6) OSTEOARTHRITIS	9
7) STENOSIS	10
8) SPONDYLOLISTHESIS	11
9) SACROILIAC JOINT (SIJ)	12
FINALE	12

Foreword:

Maybe the phrase 'a pain in the neck' would have been better coined as a 'a pain in the back!' Anyone who has had low back pain knows that it can seriously affect your ability to function every step, every bend, every twist, and every moment of sitting, lying and sleeping in your day. Low back pain can be a real pain in the neck! And the worst part is that the statistics say that nearly all of us will experience low back pain at one time or another in our lives. Yikes! If only you could start treating yourself as soon as you injured your back instead of waiting the time it takes to get professional help. You easily can! Below are 7 tips to get you 'back' in the game of life ASAP. Why not give them a try?

7 Tips to Help You Help Yourself With Your Low Back Pain

Obviously, treatment of your low back pain depends on exactly what is causing it! Your best bet to find out the cause is to get to your Physical Therapist at Ironhorse Physical Therapy as soon as possible. **Physical Therapists can see you directly, you don't need a doctor's referral unless your insurer requires it.** They can properly diagnose precisely what is causing your pain and then set you on the right path with the most effective treatment. Until you see your Physical Therapist, however, there are a few things you can do to get started on your recovery no matter what is causing that aching back!

1) Rest

Rest! One of the most important things you can do for your back, particularly if you don't know what is causing your pain, is to take a rest. Rest, you say? Who has time to rest? Resting the back doesn't necessarily mean sitting around doing nothing at all. Rest means to decrease the activities that you have normally been doing or at least those ones that you know flare-up your back pain. Resting your back does a couple of things: Firstly, it stops the irritation on your back and gives it a little time to heal! Secondly, it provides some important information about what your back pain does when you treat it with some simple tender loving care. This key

information can help your Physical Therapist determine the ultimate cause of your back pain.

2) Move

Weren't we just talking about resting? Moving your back means not staying in one position too long. It is well known that sitting and standing cause more pressure on your back versus simply lying down. The ironic thing is that lying around on your back for long periods isn't helpful either! Move. This means don't stay in one position too long. Generally back injuries do prefer some time in the day lying down, but they may also respond to sitting for awhile, standing for awhile, or walking for awhile. Mix up your positions to find out what works best for you but the Golden Rule is that you should not remain in any one position for too long. **Remember that "the best posture is the NEXT posture"!** When standing or sitting, you could try putting one foot up onto a little step or stool and switch which side is on the stool after a while. This little change in position can 'move' the your back enough to give some relief. Give it a go!

3) Ice or Heat

Brrrrrr! This is not everyone's Favorite treatment but if you have just injured your back then applying ice is essential to cut down on any unnecessary swelling and secondary injury to the tissues surrounding the main injury. If your injury occurred more than a few days ago, icing can still be extremely useful for the same purpose. But ice is so cold, what about heat, you ask? If the injury has occurred a few weeks back or is long-standing, you can try using heat on your back and see if that helps to decrease the pain. Many people find the warmth of a heating pad, a hot bath (if you can sit for awhile) or a hot shower significantly reduces their discomfort. Some people find a combination of ice or heat is best; listen to your body and use whichever helps the most!

4) Self Massage

Ahhhhhh. Now that sounds nice, doesn't it? Rubbing the muscles in the painful area can help to ease your pain by calming spasm and releasing local pain-relieving hormones into that area. Better yet, if you can get someone else to do the massaging, do it! The massage should feel like it is soothing for your back, so if it is too hard or just simply makes it feel worse, stop.

5) Exercise

Exercise? When my back is this sore? Yes! Start working on getting your back, abdominal muscles, **buttocks and leg muscles** to help support your spine, if you can do so without causing more pain. We know for a fact that having back pain causes the muscles that normally support your back to stop doing their job as well as they should be doing it. If you can get them going again, you have started on your road to recovery! Now don't worry, we aren't saying you need to go out and run a marathon or jump back to the gym. Keep reading... this simple exercise can do wonders for your pain:

It is easier to do this exercise lying on your back with your knees bent up, but it can be done in any comfortable position. Use your abdominal muscles to gently pull in your belly button back towards your spine just a tiny bit. Do this without letting your chest rise up or without holding your breath. You can place your palm on your belly button and think of gently pulling your belly button away from your palm. Making it a light muscle contraction is the key so focus on the intensity of how hard you are tightening. **You shouldn't be squeezing hard enough to move the spine - it should stay flat but not press hard into the bed or floor.** It should only be about 5-10% of the hardest contraction you could make. Hold this position for 5 seconds and repeat 5-10x. Again, concentrate hard to not hold your breath or let your chest rise up. Do this 3-5X day and start to incorporate activating these supporting muscles when you are in other positions, such as when you are sitting, when you move positions such as getting up from lying or sitting, or when you are walking. **The key thing is to teach your body to gently tighten just before moving and breathe the whole time you move.** Build up to using this muscle throughout the day as often as possible, especially when you are moving **from one position to another.**

6) Lumbar Supports

Wearing a lumbar brace or support can make a big difference to the pain you feel in your low back. The idea that your back muscles will stop working to support your spine if you wear a brace is just not true! The back muscles will be able to work better if the brace takes away some of the pain, and/or you will be able to function pain-free for a longer period of time with the brace, so supports are definitely worth a try!

There are many over-the-counter soft braces that can be very helpful, but they can be expensive to buy if you aren't sure they will help. Our suggestion is that if you already have a brace, try it on to see if it decreases your symptoms. If it does, wear

it as often as possible as long as it is helping. If you can trial a brace that a friend or family member has, try it on! Of course the brace needs to be a proper fit/size, but it can give you an idea of whether some outside support is going to help you before you invest in one yourself. The best solution would be to find a retailer that allows you to try on different braces in the shop and walk around to assess how it feels. A brace that is not too rigid and that you wrap around your back, then pull in front to tighten up works wonders for most patients.

7) Get some professional advice!

Quick! Get to your Physical Therapist at Ironhorse Physical Therapy as soon as possible. Our Physical Therapists are well trained in diagnosing and treating low back injuries. They can put you through the appropriate testing to find out for sure what is causing your pain. They can assess your posture and help you with strategies to avoid slouching or other prolonged positions that aren't great for your spine. Physical Therapists are even happy to screen you BEFORE you have a back pain episode to look at your daily life and activities and help troubleshoot ways to avoid back pain in the first place!

If needed, a Physical Therapist will also send you on the right path for any necessary tests such as an x-ray, computed tomography image (CT) or a magnetic resonance image (MRI) to rule out serious issues or injuries that require more medical help. The good news is most people will not require these tests for back pain so don't fret if your Physical Therapist or medical doctor doesn't rush to send you for extra tests. Your Physical Therapist is the best person to advise you on the most appropriate exercises for you to do for your back, and which things to avoid in order to get the quickest recovery possible.

Extra, Extra! Read All About It!

Added information about your low back injury... What Could Be Causing It?

So you have managed to get your back injury started on the track to recovery... well done! Now wouldn't it be nice to know what exactly is/was causing that terrible discomfort? Of course you will have to visit your Physical Therapist to confirm your suspicions, but the most common causes of low back pain are listed below. Have a read and see if you can match your symptoms up!

1) Muscle Strain

Ouch! It seemed you used to be able to shift that couch without any adverse effects but this time you felt a bit of a pull into your lower lumbar area. Likely a muscle strain of the back. Muscle strains are the most common cause of low back injuries and are related to specific activities that you do, however that doesn't mean you will always feel the full extent of the overstretch or tear of the muscle fibers straight away. You may not feel the pain in your back until later that evening or even the next day. Associated muscle spasm in the area may also creep up on you a couple of hours later or the next day. Muscle spasm is the body's way of protecting the area so you can't do further damage. A spasm makes it difficult to move in one particular direction without your back 'seizing' up. With a muscle strain the pain remains very local; there is no pain or sensation changes that radiate down into your buttocks or leg. The pain can often be felt on both sides of your back, but usually one side is worse than the other. Muscle strains can vary from a mild to severe strain and the severe ones send many people each year to their local Emergency Department in search of help to deal with the pain and associated spasm.

2) Joint Sprain

Bet you didn't even know there were joints in your back! There are, and there are a lot of them. Joint sprains in the back can act and feel very much like a muscle strain. The mechanism of injury is often the same; a single incident of overstretch or strain on the back. It can be due to something you have done many times in the past, but this one time, the cumulative wear and tear on the ligament causes an injury. Each of those small joints in the back is held in place by several ligaments. Similar to when you overstretch your ankle and incur an ankle sprain, a lumbar joint sprain occurs in a similar way, but because the joint is embedded deep in the muscles of the back, you may not feel the extent of the sprain immediately, as you would with an ankle sprain. It could be later that night or the next day that your back really starts to get sore, usually with one side feeling worse than the other. As with a muscle strain, the body tries to protect the area so you may feel a local spasm each time you try to move. Moving in one direction generally feels worse than all the other directions. Even from a Physical Therapist's standpoint it is often

initially difficult to determine whether it is a muscle strain or a joint sprain causing your issues. The good news is that the treatment follows a similar pathway so an exact distinction between the two is not always necessary to get you heading on the road to recovery!

3) Degenerative Disc Disease

Unfortunately age catches up with us all (usually sooner rather than later)! In regards to back pain, it is in the form of degenerative disc disease (DDD). DDD describes the process of the outside supporting portion of the discs in your back wearing down over time simply from everyday bends, twists and activities. If you do anything repetitive for your job or play a sport then the added stress can wear on the discs even quicker. Although DDD can occur at any age, by the age of 30-50 years old life seems to have taken its toll on the back such that at least one third of us will have discs that have started to wear. By the age of 60, most of us will show some degeneration on x-ray. Think of a disc in the back like a jelly donut. The outside of the disc/jelly donut is made up of a form of tissue that is like a ligament, so the discs can essentially get 'sprained' or incur microtears in them that over time weaken the outside of the disc. Small layers of the outside of the jelly donut peel away **which decreases our ability to withstand loads.**

Pain from DDD can feel similar to a sprain of one of the joints in the back, as described above, however there may not be a specific instigating event. The pain from DDD is usually described as mild, moderate or tolerable, rather than severe, and the muscle spasm associated with DDD pain is usually not as great as that which comes with a joint sprain or muscle. DDD symptoms can start as a small pain in the back after doing anything, even just sitting for a long period of time. The pain from the DDD process itself does not radiate into the legs and is often felt centrally in the back but may also feel more off to one side. It is often described as an 'ache' and it may seem hard to put your finger on one point that is causing the most pain as the discomfort feels more widespread. Pain from DDD can last anywhere from a few days to a few weeks and may go away for quite awhile then come back again. Sitting or standing for a long period causes more stress on the back so either of these activities aggravates a back that has DDD, as does repetitive bending, twisting or lifting. Because the discs act as shock absorbers in the back, any jumping or pounding force on the back can also really aggravate DDD pain.

When we are aged in our 30s or 40s you may have several incidences of back pain that can be attributed to DDD. The pain with each incident may feel the same but

the injury may last a bit longer or be a bit more intense, which is the disc/jelly donut layers wearing down more and more. As we age further on, such as into our late 60s or 70s, the pain from DDD becomes less intense and less likely as a cause of sudden back pain, but other wear and tear processes start to rear their ugly head, such as osteoarthritis (see below) which can cause a whole new set of symptoms in the back.

In the middle of the disc is a softer area of tissue (the jelly-like part of the donut.) If the wear and tear on the disc becomes so great that it thins out the outer layer of the disc (outer donut) then the jelly part can 'bulge' or start to push out causing pressure on the nerves nearby. This nerve pressure then starts to cause pain down into your leg. (See Disc Bulge/Herniation below).

4) Disc Bulge/Herniation

Sometimes an unfortunate heavy lift, twist, sprawling fall, or sports accident can cause an acute tearing or pressure injury to the disc often described as a **bulge or herniation**. Over time, degenerative disc disease can **also** lead to a bulging or herniated disc. In relation to the jelly donut analogy above, if the jelly doesn't stay contained and starts to leak into the outer donut part it then pushes **the wall** of the donut outwards, **and** it will push on anything in its path. The jelly can even completely leak out, depending on how bad the injury is! The risk with a bulging or herniated disc is that it can cause pressure on the nerves **or blood vessels** that run nearby. The nerves **and blood vessels** that can be affected from a lumbar disc bulge/herniation are the ones that come from your low back and run down into your legs and feet. These nerves are responsible for the sensation in your legs and feet, and are also responsible for giving the stimulation to the muscles of your legs and feet so that you can make your muscles contract to do all your regular activities.

Pain from a disc bulge can feel similar to the description above for DDD but may be more constant. You may get intermittent flare-ups from specific aggravating activities such as sitting or standing too long. It can also radiate into your buttocks. The bulge isn't always big enough to affect a nerve but if it does push out enough to press on a nearby nerve, you will feel pins and needles and/or pain into one leg or foot, particularly with sitting, which enhances the bulge. You may also notice a weakness in one or some of the muscles on that side. If you feel any sensation changes in through your genitalia **or the area that would rest on a bike seat, sudden changes in** your urine or stool control, or feel tingling in both your legs or feet,

QUICK!, you need to get some prompt **EMERGENCY** medical attention as the important nerves to these areas are definitely being pushed on and can be permanently damaged very quickly.

5) Sciatic Nerve Compression

The sciatic nerve is a big nerve made up from a combination of smaller nerves. It runs from the last few joints in your back all the way down the back of your leg and into the foot. If a bulging disc from your low back presses on a portion of this nerve, you will end up with pain that radiates down the leg along this nerve path. Interestingly, when the sciatic nerve is being compressed, the pain you experience in the back itself is often less than that which you feel down the leg. Some people only feel the pain in the leg, and nothing in the back! Sciatic nerve pain from a bulging disc can be very intense, sharp and shooting. In some people the pain is more of a constant, dull ache down the leg with only intermittent periods of intensity, such as when sitting or standing for a long period. Walking or moving usually makes sciatic nerve pain feel better, as does lying down, but it still limits you from walking for long periods. You may also feel pins and needles in your leg or foot from the pressure on the nerve. Symptoms depend on how severely the pressure on the nerve is. In more severe cases, people notice that they start to have trouble lifting their foot when walking (footdrop).

6) Osteoarthritis

Osteoarthritis (OA) is the wear and tear of the cartilage on the joints in the low back from everyday use. It is a process that occurs over time such that by the time we are 50 most people show signs of OA in their low back simply from everyday life. The wear and tear can occur more quickly, more aggressively, or show up earlier if you have had a job that requires repetitive movements, or heavy lifting, or if you have been involved in a repetitive-type sport. It can also occur more quickly if you have sustained a big injury, such as a serious fall or a motor vehicle accident, or have had repeated injuries to your back. Being overweight also expedites the process of OA in your low back, so best to keep your weight in check!

Back pain from OA is a general, non-specific type of pain. As mentioned above, it is often unrelated to one specific incident but seems to just come on over time and it is often hard to point to one spot that is really really sore. The wear and tear process may be occurring at the joints without you knowing it, but then the pain may start up rather unexpectedly if you do a lot of activity that you aren't used to, or if you start up with activity after an extended period of inactivity. OA in your

lumbar spine may also make your back feel generally less flexible. Regular exercise and stretching often help to keep a back suffering from OA pain feeling quite good!

OA in your low back on its own does not cause any sensations of pins and needles/numbness into your legs, but as a secondary process to the OA, the body often tries to help out the wear and tear process by producing little boney spurs that grow on the edges of the osteoarthritic joints as a way to help stabilize the joint. These 'helpful' spurs can unfortunately press on the nerves that lie near the joints, or in more severe cases, can press inwards towards the spinal cord (see Stenosis below).

7) Stenosis

Stenosis means 'choking' so you get an idea of how a choked back might feel! In terms of the low back, it is the nerves **or blood vessels** that are getting choked and causing the problem. When the medical term stenosis is used to describe problems in the back it usually means that there is a boney spur from OA encroaching on one of the spaces in the spine, but sometimes the term stenosis is also used if there is a bulging disc 'choking' out the space available in the spine. Stenosis can either crowd the space on one of the sides of the spine (laterally) or it can crowd right back into the central canal where the spinal cord and its associated nerves run. Stenosis from OA mainly occurs in people over 60 but it can occur in younger people. Central stenosis is more serious than lateral stenosis because it affects the spinal cord. If you notice any sudden changes in your ability to voluntarily hold your urine or stool, pins and needles/numbness around your genitals or groin, or pins and needles/numbness into both legs at once, **QUICK!**, you need **EMERGENCY** medical assistance **ASAP** as pressure on these nerves can quickly cause permanent damage.

Symptoms of stenosis don't become evident until the encroachment comes into contact with one of the nerves in the area. When this occurs, you may experience some local back or buttocks pain, but more often symptoms show up as numbness or pins and needles down into one of your legs (see Sciatica above), and over time you may also notice weakness in using one or some of the lower extremity muscles on that side. Symptoms depend on how severely the pressure on the nerve is. In more severe cases, people notice it when they start to have trouble lifting their foot when walking (footdrop). Sitting forward is often more comfortable than sitting up straight as the forward lean helps to open up the stenotic area. Standing very upright is often uncomfortable as it closes down the joint spaces and causes more pinching on the nerves. Often people find they can walk by leaning on a

shopping cart but can't walk much without the cart. Walking uphill, up a flight of stairs, or riding a bike is also easier as you have to lean slightly forward to do these activities. Walking downhill compresses the joints and can irritate pain in the back caused by stenosis. Walking any distance more than a couple of blocks, even when you can lean forward, however, tends to flare up a spine suffering from significant stenosis.

8) Spondylolisthesis

Can you imagine our backs as a stack of building blocks? The vertebrae in our low backs line up into a nice stack one on top of another. When one of those building blocks slides out of place (usually forward) it can cause symptoms and problems with the function of the back. This is called spondylolisthesis.

Spondylolisthesis can be caused by a number of reasons. Kids or adolescents involved in high impact and flexibility sports such as dance or gymnastics have a higher chance of developing a spondylolisthesis, as do young weightlifters. As an adult, you may be predisposed to spondylolisthesis if you have been involved in these types of sports as a kid, but unfortunately also regular wear and tear (OA) of the low back structures can decrease their ability to hold things stable and can lead to a slippage of the vertebrae. In many cases there is actually a stress fracture of part of the spinal vertebrae, which allows the main part of the vertebrae to slide forward.

In mild or moderate cases of spondylolisthesis you will feel local back pain or pain that radiates into the buttocks. It may feel worse when bending backwards or standing, and feel better when sitting, tilting your pelvis backwards, or lying down with your knees bent up, which can all help to pull the vertebrae back in alignment. You might notice an accompanying tightness in the muscles in the back of your legs (hamstrings) as these muscles have to work hard to help keep things in proper alignment. In severe cases of spondylolisthesis the slippage will affect the nerves in the area and pain down the leg will be felt.

Spondylolisthesis pain can be difficult to discern from other forms of low back pain without an x-ray, unless it is a very large slippage. In these rarer cases, you may suspect a spondylolisthesis from your pain and if you are able to feel a little step/indent inwards when you feel from your buttocks area up into the last one or two joints in your low back.

In severe cases, pain and numbness in both legs may be present. If this occurs, or you notice any **sudden changes in your ability to voluntarily hold your urine or stool, pins and needles/numbness around your genitals or groin**, QUICK!, you need **EMERGENCY** medical assistance ASAP as pressure on these nerves can quickly cause permanent damage.

9) Sacroiliac Joint (SIJ)

Although the SIJ is technically not considered part of the low back but rather a joint of its own accord, in many cases pain from this area is grouped with low back pain, so it is worth discussing.

The SIJ is the joint made up from the joining of your sacrum to your **ilium** bone. What does that mean? In simple terms it is where your pelvis joins your sacrum. Your sacrum is attached to the low back at the very bottom of your low back. If you put your hands on your hips with your fingers facing the front of your hips and your thumbs wrapping around backwards towards your low back area, you may feel two little indents on your back. The indents are obvious to see in the mirror on most people. Under these little dimples in your skin sits your sacroiliac joints! Normally the SIJ is a very stable joint, joined together as other joints are, with many tight ligaments, but a **significant** trauma (like a **very hard** fall on the buttocks or a motor vehicle accident), repetitive injury or trauma (such as pounding during running) and hormonal changes in pregnancy which make your ligaments looser, are some things that can disrupt the normal stability of this joint and start to cause **poor control or loading of the joint**. This results in pain. If the joint is **stiff because the ligaments and muscles are compressing the joint too much**, it can also cause pain. The general wear and tear of life can also affect the SIJ joint (see Osteoarthritis above), as it does with the other joints of the body.

Pain from the SIJ often feels local to that area on one side but can also be felt in the lower back or radiate down into the buttocks or into the groin or thigh area, particularly if the joint **movement is poorly controlled**. The little indents in the skin may be painful themselves when you press on the offending side. If the SIJ is **being loaded poorly**, it can make walking, going up or down stairs, or rolling over in bed painful. Bending forward will likely cause pain as will anything that requires you to stand on only one leg at a time.

Finale



So now you have 7 easy ways for you to help yourself with your low back pain all on your own. You might even be able to determine what is most likely causing your pain by referring to the extra information provided above.

There is no better way, however, to confirm what is causing your back pain and to get **DEFINITE** relief from it than by contacting your highly qualified Physical Therapist at **Ironhorse PT & Pilates**. They can help you on your way to getting rid of your pain for good! So what are you waiting for? Come on in or call and book an appointment at **Ironhorse PT & Pilates**. Don't suffer any longer with your pain. Get yourself 'back' to life as soon as possible!