

Sciatica

Miracle

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CHAPTER 1. INTRODUCTION

Sciatica is a medical condition that affects many people all over the world.

Is your sciatica getting you down or making you depressed? Do you fear the cost and troubles of seeing the doctor again because you get the same old temporary sciatica pain relief after each visitation, but no permanent cure?

This book will show you exactly how to cure sciatica FAST, NATURALLY, and most importantly – PERMANENTLY!

We'll start by discussing what exactly sciatica is and what causes it, as it is only by knowing the root cause that we can eradicate it permanently. Next we'll explore the common treatment options for sciatica, before moving on to what exactly you need to be doing to get rid of your pain in the next few days...guaranteed!

So what exactly is sciatica?

Sciatica describes pain that is caused by the irritation of the sciatic nerve or damage to the nerve. The pain starts at the lower back and may extend to the leg and foot depending on the affected nerve root. Sciatica is not a disorder on its own but a symptom of other medical conditions.

The sciatic nerve sends out signals from these areas to the brain and receives the signals back from the brain. When this nerve is irritated or damaged, it produces pain that is similar to having a leg cramp. It makes both sitting and standing difficult because of the intensity of the pain it causes. Usually the pain is aggravated when sitting, coughing, or sneezing.

If you are just having sciatica pain for the first time, it is a pain that you will undoubtedly wish you never had. It is a sharp pain that shoots through your buttocks and sometimes it can make your knees and groin ache. Many sciatica patients have trouble standing, sitting, and sometimes even walking.

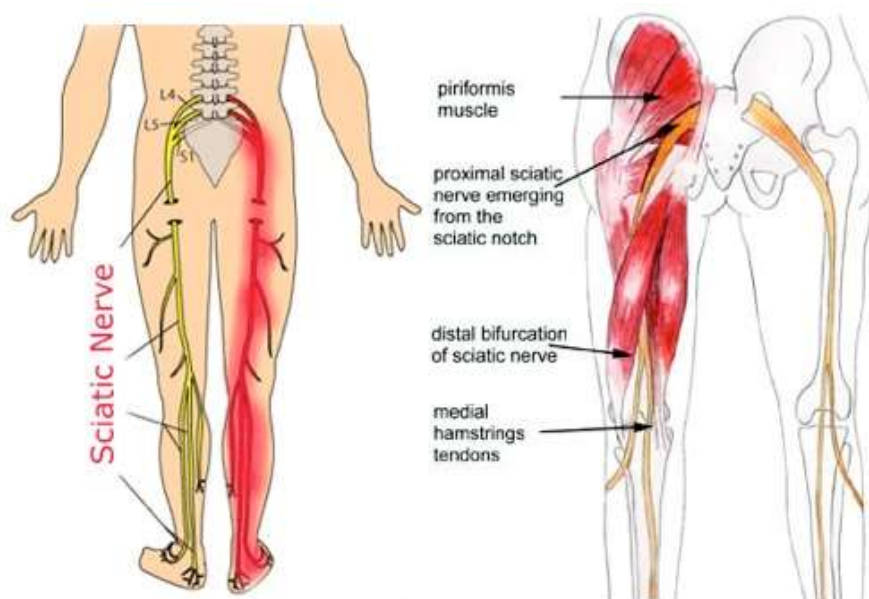


Figure A

There are different reasons why people experience sciatica pain. It could be that the sciatic nerve is pinched, maybe from sitting for a long time or it could be due to a deeper, underlying cause that may have been due to a herniated disc or slipped disc. Irrespective of what is causing the pain, it is best to treat it as soon as possible because it can become unbearable if left untreated.

So how do you deal with the sciatic pain and other associated pain?

Everybody seems to have their own techniques and methods of dealing with the pain. Simple exercise to strengthen the spine would be a good starting point. Learning Yoga or joining a fitness class dedicated to teaching you how to do proper exercises and other forms of workout designed for the back can also help.

Sciatica can be very painful depending on whether the nerve is damaged or irritated. The pain can come in form of a stabbing pain, prickling, burning sensation, like feeling numb, or even like an electrical shock that radiates through your buttocks and leg; you can also experience weakness or numbness in the lower back and legs.

CHAPTER 2. CAUSES OF SCIATICA

There are several causes of spinal nerve compression, sciatica pain pressure and sciatic nerve inflammation. The most common ones are:

- A bulging or herniated disc
- Lumbar spinal stenosis
- Spondylolisthesis
- Piriformis syndrome
- Trauma
- Spinal tumors

#1: Lumbar Bulging Disc or Herniated Disc

A herniated disc happens when the nucleus pushes through the annulus fibrosus. It is referred to as a "non-contained" disc problem. Whether a disc bulges or herniates, the disc content can press against nearby nerve roots and squeeze sensitive nerve cells and cause sciatic nerve pain.

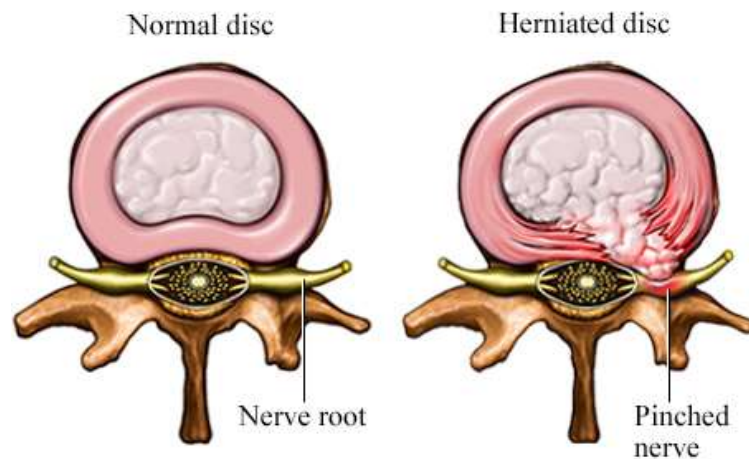


Figure B

The bones (vertebrae) that form the spine in your back are padded by tiny spongy discs. These discs act as shock absorbers for the spine and keep the spine as flexible as possible. But when a disc is damaged, it may break or bulge. This is known as a herniated disc, also known as a slipped or ruptured disc.

A herniated disc can happen in any part of the spine. But most herniated discs happen at the lower back (lumbar spine). Some happen in the neck (cervical spine) and some in the upper back (thoracic spine).

A herniated disc may be due to:

- Wear and tear of the disc as a result of aging
- Damage to the spine- This may bring about tiny tears or cracks in the hard outer layer of the disc. When this happens, the thick gel inside the disc can be forced out through the tears or cracks in the disc. This causes the disc to bulge or break.

When a herniated disc rests on the nerve root, it causes pain, numbness, and

weakness in the body parts where the nerve travels.

#2: Lumbar Spinal Stenosis

Another common cause of sciatica is lumbar spinal stenosis. Spinal stenosis is a nerve compression disorder which normally affect the elderly people (over the age of 60 years). Lumbar backbone stenosis is associated with natural aging in the backbone which more often than not results from one or more of the following health conditions - overgrowth of soft tissue, bulging disc and facet joint problems which irritates the nerve root as they move out of the backbone causing sciatica. The pain is usually positional, often due to actions such as standing or walking and treated by seating down.

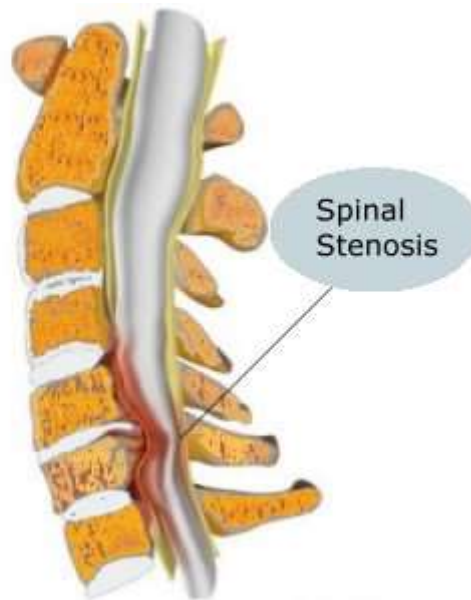


Figure C

#3: Spondylolisthesis

Spondylolisthesis is one of the sciatic nerve pain causes that most often occur in the lower backbone (lumbar spine). It is characterized by one vertebra slipping over an adjacent vertebra. Spondylolisthesis is categorized as a disorder that is discovered at birth and becomes more pronounced during a child's early years, physical stress or trauma.

#4: Trauma

Many sciatic pain causes are due to past car accidents, football or any other sporting activities. Heavy falls can also induce sciatic nerve pain as there is a direct compression of the sacral spinal nerve roots. The sudden impact of the accident or sporting activities injury may irritate or damage the nerves or broken bone fragments may compress the nerves.

#5: Piriformis Syndrome

The most common cause of sciatica pain is Piriformis Syndrome and this occurs when the piriformis muscle, as a result of spasms, tightness and pinches or compresses the sciatic nerve. The piriformis muscle starts from the lower back, it run through the buttock, and connects to the thigh bone; if this muscle becomes inflamed and swollen it will irritate or put pressure on the nerve causing sciatic nerve pain. This is because the nerve is beneath the muscle, and when the muscle swells it places more pressure on the nerve which causes the pain in your lower back, buttocks, and leg.

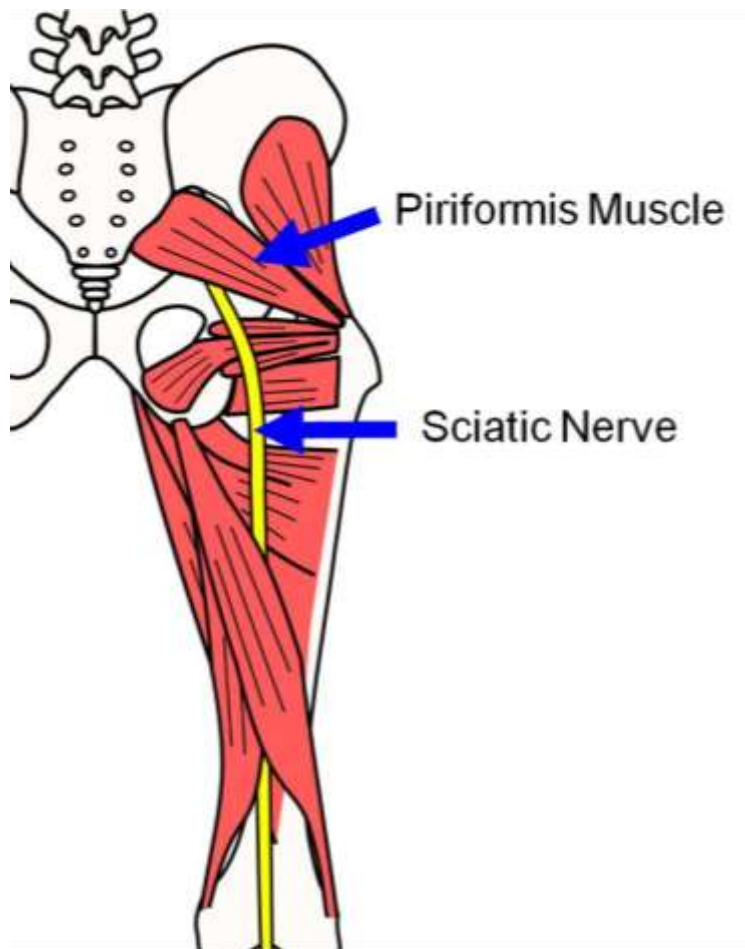


Figure D

#6: Spinal Tumors

Spinal tumors may also be one of the causes of sciatica. Even though spinal tumors are very rare, when the tumor grows in the lumbar region, there is a risk of sciatic nerve pain happening due to the compression of the nerve.

As you can see, sciatica can be due to several causes, and it is always wise to have it checked out by a doctor in case it is a symptom of something much more serious.

CHAPTER 3. SCIATICA SYMPTOMS

For some people, sciatic nerve pain can be annoying while for other people, it can be very painful and have more serious complications. Most of the time, the pain starts in the lower back area and drives down through the thigh and down to the leg, but most times only a single part of the body is affected. It is common to find that the pain in the leg is significantly more serious than the back pain, even though both may be obvious.

Here are some common sciatica symptoms to watch out for:

1. Weakness or numbness when moving the foot or leg.
2. Leg pain appears to be more pronounced than back pain even if both occur to some degree.
3. An agonizing or sharp pain is felt.
4. Pain is primarily on one part of the body more than the other.
5. A sustained pain in the buttocks of the left or right leg, but not usually both.
6. Pain gets worse when the affected person sits or stand up, but when they start to walk or lie down the pain reduces.
7. A tingling feeling in the leg, combined with the leg feeling numb and weak.
8. One leg is more affected than the other with pain (usually quite severe) or a burning sensation through the leg which makes walking or standing hard.
9. Possible discomfort in the toes and the foot. This depends on several factors such as the location of the irritated or damaged sciatic nerve, and how severe the pain is.

Nerve/Root Symptoms

There are five nerves that are made up of what we would normally consider the sciatic nerve. Three of these come out of the sacral section (S1, S2, S3) while the other two (L4 and L5) come out of the lumbar segment. When these five divide out in the feet and leg region, the motor and sensory functions are delivered. Based on the particular location of the affected nerve root in the body, you will discover that different Sciatic Pain signs will be felt.

Below are some examples:

1. Nerve Root S1 - You will discover that generally this type has the most effect on the outer area of the feet and that sometimes this can spread to the toes particularly the little toe. Common routines like standing on tiptoes, raising both heels may cause a weak feeling in the affected person. It is also possible that the affected person may notice a decrease in the ankle jerk reflex.
2. Nerve Main L5 - The top of the feet may be painful or numb, especially in the area between the second toe and the big toe. This generally affects the ankle as well.
3. Nerve Main L4 - Happens when the leg is straightened, and often affects the upper leg region (the thigh). This will result in feeling weak and a clearly decreased knee jerk reflex. Often the affected person will notice several of these together as multiple nerve roots may be affected.

Areas of Concern Where Immediate Action Needs To Be Taken:

There are two situations when immediate medical care may be needed if the signs of sciatic nerve pain worsen:

1. Damage to Nerve - If signs continue to worsen, there may be nerve damage. This is especially the case with the affected person noticing weakness in some areas linked to neurological damage.

2. Both Legs are affected - This is known as bilateral sciatica and can be very serious. It can cause intestinal or bladder malfunction or incontinence, and this may be a sign of "cauda equina syndrome", where an acute compression may have happened in one or many of the nerve roots. If either of the above two signs present themselves, proper medical care should be quickly sought.

CHAPTER 4. DIAGNOSIS OF SCIATICA

There are several symptoms that have been discussed above that can help an individual figure out if he is suffering from sciatica or not. However, there are some ways to make a proper diagnosis of sciatica. To correctly diagnose sciatica and determine if there are any affected nerves, physicians tend to consider the following:

- **Medical History** - prior to any test, the doctor will first inquire about the health history of the patient.
- **Physical examination** - a thorough physical examination will be performed with the focus on the backbone and the leg. Usually, a stretching exercise will be performed to see if the individual feels any pain.
- **Basic muscle assessments** - muscle reflexes and strength are also examined to see their situation with regards to back support and other relevant issues. Another thing that the physician will ask the affected person to do is to walk on their heels or toes then to get up from a sleeping or squatting position. Any pain from such workouts can indicate that the individual is suffering from sciatic nerve pain.
- **Imaging assessments** -If the pain continues longer than four weeks or if the degree of pain gets worse, the physician may request an imaging test to discover which nerves are affected, the extent of irritation/ damage and the cause of the damage. There are several types of imaging test and these include:
 - **Spinal X-ray** - The typical x-ray procedures cannot detect the problems associated with nerve damage or herniated disc thus it's important to go

through a spinal x-ray.

- **Magnetic Resonance Imaging (MRI)** – A MRI provides a cross-sectional image of the patient's spine that helps in diagnosing sciatica pain.
- **Computerized Tomography Scan (CT)** - a dye is usually injected into the spine to get a good image of the backbone once the test has been done. A CT scan also provides the cross-section image of the body.

Depending on the diagnosis, the individual may need to go through a specific set of the treatment process.

CHAPTER 5. SOME COMMON MISCONCEPTIONS ABOUT SCIATICA PAIN

Misconception #1: Failing to treat the pain the first time

Many people encounter back pain that continues for a few days and then subsides. When the pain is gone, rather than make an attempt to recognize and deal with the underlying cause, they simply ignore it. Most people believe that as soon as the pain is gone, there is nothing else to fear. This is a very common misconception that you should correct and educate other people about. The fact is, even though the pain may go for a while if you haven't discovered what triggered it in the first place, that cause is still there, hiding, patiently waiting to surface again and it will be worse. Of course, identifying the cause of back pain isn't always easy but it's worth spending time searching for.

Misconception #2: Thinking you're Too Healthy to have Sciatica Pain

You may eat right, exercise regularly, and never fall sick, but that doesn't mean you can't have sciatic pain. Actually certain categories of athletes—including track & field athletes, cyclists, performers, gymnasts, and weight lifters — are more prone to back issues. Cyclists, for example, spend a lot of time in a hunched position (a position that's not ideal for one's body to withstand for a long time). This causes a variety of issues. In addition, the continuous peddling of a bike overworks one set of muscle tissue while underworking another set. These frequently they lead to conditions that can cause sciatica pain. The same thing, however, can occur to non-athletes. Even if you are not an athlete, your exercise program can cause back pain if you're focusing too intensely on

certain areas of your body making the pain worse. So being fit is not a complete shield against sciatica pain.

Misconception #3: Treating the symptoms only

The majority of the therapies people receive—including steroid injection, anti-inflammatory medications, ultrasound, and others, address only the pain symptoms. You must know that pain is merely an indication that something is wrong. Even if you get rid of the pain, the issue is still going to be there.

Misconception #4: Not Understanding That Back Pain Is a Process

Most times, back pain, leg pain, and sciatica pain take several weeks, months, or even years to develop. Usually, you're not aware of the condition until it starts to hurt. Sciatica pain is rarely a one-time occurrence. With the exception of an injury like a car accident, back pain generally doesn't start overnight. It is crucial to recognize stresses that you may be putting on your back on a regular basis.

Misconception #5: Believing There Are No More Options Left

After struggling with sciatic pain for some time and trying various treatment options, most people end up being discouraged believing that surgical treatment is the only option left or even worse, that they'll just have to learn to live with the pain for the rest of their life. If you've experienced little success, you may naturally want to give up on trying. As mentioned previously, rather than focusing on the pain, determining what is causing the pain is the major issue. When you can get to the main but often invisible cause of the back pain, it becomes much easier to deal with it efficiently. Most experts try to get rid of back pain without ever really trying to determine what's triggering the pain.

Perhaps you've tried one popular form of therapy and it didn't work, the problem is that the therapist didn't make you do the right combinations of things to address the main cause of your pain.

Misconception #6: Failing to Take Control

Many back-pain patients look up to others to make them well. The truth is that no one cares about your body more than yourself and in the end, you have to take the necessary actions and have the determination to allow and assist your whole body to heal.

A medical professional looks at back pain as a muscle problem, prescribe the right medication for you and he believes that your sciatica will go away.

The surgeon diagnoses it as a disc or spinal vertebrae problem—a strained disc is affecting the sciatic nerve and he/she believes that by correcting the disc, the pain will go away.

The acupuncturist believes that your sciatica pain is due to inadequate circulation within the body. By using his therapies, he stimulates better circulation and believes that it will activate the body's natural self-healing abilities to cure it and so on.

These treatment techniques are all right. The problem with sciatica pain is that the cause is different for each person—and often includes a combination of different factors. Because no back pain specialist is well-versed in all these areas—nor extremely experienced about relevant circumstances with treatments—nobody other than you will ever consider the whole picture or the holistic aspect of what's resulting in your pain.

CHAPTER 6. TRADITIONAL SCIATICA TREATMENT OPTIONS

Sciatica symptoms can result from numerous causes; and sciatica therapies vary just as much! The following are a few popular sciatica treatment options that you may have already come across:

- ***Rest and Relaxation***

Sometimes, the best and the easiest treatment for sciatica is to relax for at least a few days. However, doctors usually also recommend over-the-counter non-steroidal anti-inflammatory medicines, such as Ibuprofen, Tylenol, Naproxen, and Acetaminophen along with bed rest for faster results. In more serious situations, even muscle relaxant drugs may be recommended for instant comfort from the pain.

- ***Habits***

One of the simplest and effective ways to deal with sciatic nerve pain might be changing a few of your habits/routines. Sitting down on your wallet in your back pocket every day may worsen the situation. At the very least, switch pockets every day or simply keep your wallet in the front pocket of your trousers. Be careful when you wear a tool belt as well. If it goes down too low, it may cause pain especially when bending or twisting. But men are not the only ones at risk. Pregnant women also need to be careful as the additional weight and stress put on their body can cause sciatic nerve pain.

Obesity is another cause of sciatica pain that can be treated right at home. Changing to a more healthy diet and losing the fats can help to reduce the pressure on your backbone that causes sciatic nerve pain.

- ***Epidural steroid Injections***

In certain situations, doctors suggest that epidural steroid shots containing cortisone or a similar drug could be used in treating the pain. Pain relief is often experienced immediately after a single shot, but certain situations may require a series of injections.

- ***Physical Therapy***

Physical treatment for sciatica includes acupuncture, massage therapy, chiropractic therapy, etc. But, it is not always necessary to work one-on-one with a physiotherapist to help reduce sciatica. Physical therapy can basically mean taking short walks, stretching exercises, and staying as active as possible when the sciatic nerve pain is not too much to bear.

- ***Heat and Ice***

Hot and cold packs are often advised to provide relief from nerve discomfort and also to help reduce inflammation and swelling. Ice can numb areas that are experiencing the pain, and heat will increase blood flow to the affected area, thereby boosting up the process of recovery.

In situations where serious sciatica pain continues for more than several months, and none of the above-mentioned non-surgical sciatica therapies work, then surgery treatment must be considered. It usually includes removing the region that is pressing on the sciatic nerve. There is always some level of risk associated with surgical treatment, so it should only be considered after all other non-invasive sciatica treatment options have failed.

CHAPTER 7. SCIATICA TREATMENT: HOME REMEDIES

The natural system of getting rid of sciatica quickly and permanently involves 4 components: remedies, exercises, therapy and diet. We'll start with remedies.

1. Carrots, Celery, Ginger and Potato Juice

Carrot, celery, ginger and potato juice is very powerful when it comes to relieving pain as not only does it have a natural analgesic effect, but it also has strong anti-inflammatory properties. In addition, the nutrients found in this juice will relax the muscles and improve blood flow, facilitating the delivery of nutrients to the muscles and surrounding tissues. It will greatly help speed up the healing of sciatica, muscle injuries and nerve inflammation. Two cups of this juice should be drunk each day until the pain goes away completely.

Ingredients:

- 4 medium-sized carrots
- 4 medium-sized celery stalks
- 2 egg-sized potatoes
- 1/2 inch of Ginger

Instructions

1. Clean carrots, celery, potatoes, and ginger.
2. Peel the potatoes and ginger with veggie peeler. You don't have to peel the carrots if you don't want to. The leafy tops can be kept if you don't mind the taste; otherwise remove them.
3. Juice the potatoes, celery, carrots, and ginger.
4. Enjoy as is or over ice.

P.S. Make sure that the potatoes you use aren't sprouted, green, spotted or dehydrated. Such potatoes contain a toxic alkaloid called solanine, which may cause diarrhea, nausea, headache, stomach-ache and dizziness when they accumulate in a large quantity in the organism. In addition, make sure not to store onions in the same bin with potatoes. The two kinds of vegetables emit certain gases and have a tendency to spoil one another

2. Cherries or Cherry Juice

Sometimes, sciatic flares are due to the buildup of acid (particularly uric acid) around the sciatic nerve. A handful (around 80 grams) of cherries per day will significantly decrease uric acid in the blood and around the sciatic nerve, accelerating the healing of sciatica (and also helping to prevent gout). If it is hard to find cherries in your area, then drinking a glass of cherry juice each day will provide almost as much benefit as eating cherries. Once the sciatic nerve pain goes away, it is still recommended to consume cherries or cherry juice at least 2-3 times per week to prevent it from coming back.

3. Mustard Massage

Combine mustard oil with minced garlic to produce a concoction that you can then massage right into the affected area of your body. This is also effective to numb the pain and relax the muscles of the affected areas, greatly shortening the recovery time from sciatica. Aim for 5-10 minutes of massage (applying moderate pressure) per day until the pain is gone.

4. Nutmeg Oil

Nutmeg is also another natural remedy for sciatic nerve pain. Nutmeg is well-known and has been used as a natural pain reliever since it can ease inflammation around sensitive tissue and increase blood circulation to the affected area. Nutmeg oil is best when massaged directly into the affected area of the body. You can use this instead of the mustard oil & garlic massage (e.g. if you don't like the smell of the latter).

5. Horseradish

Horseradish can also be used to numb your body's pain receptors so that the pain you feel from sciatica won't be as much. For best results, you will need to massage the horseradish into the affected parts and leave it there for at least one hour before washing off. Use this in addition to the mustard oil & garlic / nutmeg oil massage if your sciatica is particularly painful until it eases a little.

6. Elderberry

Elderberry has also been used to treat pain by many homeopaths. It has muscle relaxant properties so it can relax the tense muscles and stimulate them. It shouldn't be that difficult to find elderberry tea at a store near you. Drink one cup daily, ideally before bed, until your sciatica is gone.

7. Peanuts

Peanuts are incredibly effective at improving sciatica because they are loaded with magnesium and this mineral is a powerful natural muscle relaxer. Make sure you consume a handful (about 25 grams) of peanuts daily when you have sciatic pain.

CHAPTER 8. EXERCISES FOR SCIATICA

To relieve most sciatica pain, a treatment program with structured, gradual exercises is necessary to focus on the root cause of the sciatic pain. Working through these sciatica exercises achieves two major goals:

- Decrease the sciatic pain in the short run
- Prevent pain in the future through strength and conditioning

During the treatment of leg pain and related symptoms, a chiropractor, certified athletic trainer (ATC), physical therapist, physiatrist (PM&R, or Physical Medicine & Rehabilitation physician) or other spine specialist will generally outline particular exercises and show the patient exactly how to properly do them.

Exercise to Reduce Sciatica Pain

Though at first it seems counterintuitive, **exercise generally does more to relieve sciatic pain than resting in bed.** It is reasonable that patients should rest for a day or two when the sciatic pain appears, but resting for any longer typically causes the pain to worsen.

When there is no exercise and little movement, the spinal structures and back muscles are weakened, making them less able to provide back support. Such a deconditioned state can lead to back injury and strain, leading to added pain. Maintaining an active workout also promotes healthy spinal discs. Movement allows nutrients and fluids to move within the discs, keeping them healthy and limiting pressure on the sciatic nerve.

There are common features present in all sciatica exercise programs, including:

- **Core muscle strengthening.** The aim of many sciatica exercises is to make the abdominal and back muscles stronger. Exercises are designed to stretch the particular muscles that lead to pain when they are not loose or flexible. Patients who undertake a regular program that includes light stretching and strengthening exercises tend to recover faster from a sciatica episode and find that future flare ups are less likely to occur.
- **Hamstring stretches.** No matter the diagnosis, nearly all types of sciatica benefit from incorporating hamstring stretching into a daily routine. These muscles can be found on the back of the thigh. When hamstrings are tight, there is greater stress on the lower back, ultimately causing the sciatica to worsen and even cause certain related conditions. The pictures on the next page show a standing and a seated hamstring stretch. Try to hold the stretch for 10-30 seconds.



- **Aerobic conditioning.** As a supplement to particular sciatica exercises, aerobic exercise is recommended to promote overall fitness. Walking is a great way to exercise because it is a low impact activity that delivers all the advantages of aerobic conditioning. Patients should work themselves up to walking three miles every day at a swift pace.
- **Individualized diagnosis.** Exercise programs are typically catered to treat the root cause of a patient's sciatic pains, for example spinal stenosis or degenerative disc disease. When patients exercise in the wrong manner, it can actually make the sciatic pain worse, so it is essential that a patient receive an accurate diagnosis before beginning a sciatica exercise program.
- **Proper exercise.** To expand upon the point above, completing the right exercises but with improper form can render the exercise program basically ineffective, with the possibility of creating more pain. Patients are advised to learn proper exercise techniques from a physical therapist, chiropractor, athletic trainer or another trained medical professional.

Treating sciatica requires a daily commitment to exercise, not just something to do every now and again. In conjunction with the exercise routine, sciatica patients should take care to reduce stress on the lower back. This includes supporting the lower back when seated, using proper lifting techniques, maintaining good posture and not sitting or standing for a prolonged time.

Prior to starting an exercise program, patients should seek a diagnosis from a health professional to determine the cause of the pain and identify any serious

issues. Depending on what is causing the back pain, different exercises are used.

Sciatica Causes and Exercises

Prior to outlining particular sciatica exercises, it is essential to be clear about what sciatica is because the term is often misused and the definition misunderstood. Sciatica comprises a *set of symptoms* as opposed to a diagnosis on its own (it does not identify the source of the pain). The term 'sciatica' is general and describes a number of symptoms that exist near the sciatic nerve. Technically speaking, sciatica is pain caused by stress or irritation of nerves at the bottom of the lower spine that make up the sciatic nerve, and a variety of conditions exist that bring this about.

The medical word for sciatica is radiculopathy, stemming from the fact that radicular nerve, or the nerve root, found in the lower back is experiencing increased stress or pinching by a condition such as isthmic spondylolisthesis or degenerative disc disease. The sciatic nerve starts at the lower back before running down the back of each leg. It then continues to other parts of the leg before finishing at the feet and toes. Patients may experience sciatic pain at any point along the nerve, including the feet, calf, hamstring, buttock and lower back.

Particular Sciatica Exercises Based on the Underlying Condition

Patients should always receive an exact diagnosis that outlines the cause of the pain for two reasons:

- The particular exercises that are suggested depend on the root cause of the sciatica.
- Though rare, it is possible that the sciatic pain is being caused a more serious medical condition (such as a tumor, infection or fracture) that requires medical care immediately.

Exercises designed to address typical causes of sciatica or its symptoms are described throughout the remainder of this chapter. Before starting any exercise regimen, all patients should consult a chiropractor, physician or other spine medicine professional.

Sciatica Treatment Requires a Day-to-Day Routine

To work effectively, sciatica exercises outlined for particular conditions must be done on a regular schedule of two times each day and completed with the proper form. Paying attention to the body mechanics and posture is the crux of maximizing the relief provided by the exercises and preventing an aggravation that could lead to more pain.

Maintaining a program of light exercise and stretching is not only advantageous for a flare up of sciatica, but for general back health. Improving the strength and conditioning of the back helps prevent future sciatic pain.

Exercises for Sciatica Caused by a Herniated Disc

Sciatica from a herniated disc results in leg pain when protruding disc material irritates and puts stress on a nerve root, causing pain to spread throughout the sciatic nerve.

Sciatica Exercises for a Herniated Disc

Particular exercises for leg pain or other symptoms associated with a lumbar herniated disc are determined by the positions that will shift the symptoms to move away from the leg or foot and to the lower back instead.

Most patients find that the pain will shift from the leg to the lower back when they are in a backwards bending position, referred to as *press-ups or extension exercises*.

- The lower back is first positioned into extension while the patient is lying on the stomach in prone position. The upper body is propped up on the elbows, making sure the hips are on the floor. (**Fig. E1**). Some patients initially may not be able to tolerate this position so extra care should be taken to do this slowly.
- Hold the press-up position for five seconds at the start, before working up to 30 seconds for every repetition. The goal is to finish 10 repetitions.

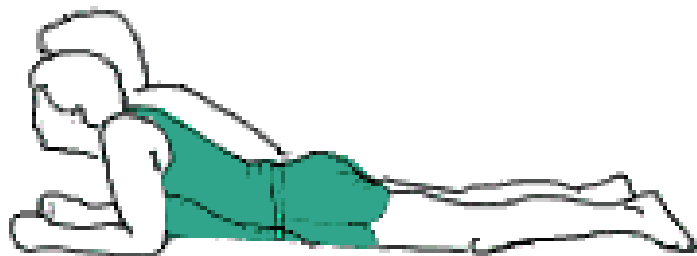


Figure E1

If you can do this exercise fairly easy, then you should perform a more progressive manner of the extension:

- Starting by lying flat on the stomach in prone position, use the hands to press up as the pelvis stays on the floor (**Fig. E2**). The low back and buttocks should be relaxed to achieve the light stretch.
- Hold this position for 1 second and complete 10 repetitions.



Figure E2

In cases when the person cannot lie flat, a related exercise can be done standing by placing the hands on the hips before slowly arching backward (**Fig. E3**). Keep in mind that the prone position as outlined above is preferred.



Figure E3

Extension exercises should be done on a regular schedule of approximately every two hours. Most important, a patient with this condition may be told not to get into a bent over or forward flexed position. Doing so typically reverses the impact of the extension exercises. For any instance of a forward flexed position, it is recommended that the patient corrects it right away through a set of extension exercises.

Sciatica Exercises for a Herniated Disc Focused on Abdominal and Back Muscles

Once the patient's pain has worked its way out of the leg or foot and relocates in the lower back, advanced exercises are usually recommended to strengthen the abdominal and back muscles. This limits the flare ups of sciatic pain because of a herniated disc.

Strengthening exercises for lower back muscles:

- *Upper back extension.* In the prone position with hands coming together behind the low back, lift the head and chest slightly upwards (**Fig. E4**) while keeping eyes on the floor. Be sure to stay low. Start with the holding position for 5 seconds, and steadily build up to 20 seconds. Strive to repeat the exercise 8-10 times.



Figure E4

- In the prone position with the head and chest resting on the floor, gently lift an arm and opposite leg slowly, with the knee firm, 2 to 3 inches off the floor (**Fig. E5**). Start by holding position for 5 seconds, and repeat 8 to 10 times. As strengthening occurs, the goal is to hold position for 20 seconds.

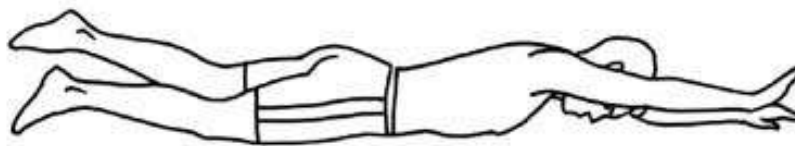


Figure E5

Strengthening exercises for abdominal muscles

- *Curl-ups.* To work the upper abdominal muscles, the person should lie on their back with bent knees, folded arms over the chest and a tilted pelvis in order to straighten the back. Curl-up lifting entails raising the head and shoulders off the ground (**Fig. E6**). Hold each curl-up for two to four seconds before slowly lowering to the initial position. As muscles strengthen, the goal is to do two sets of ten curls.

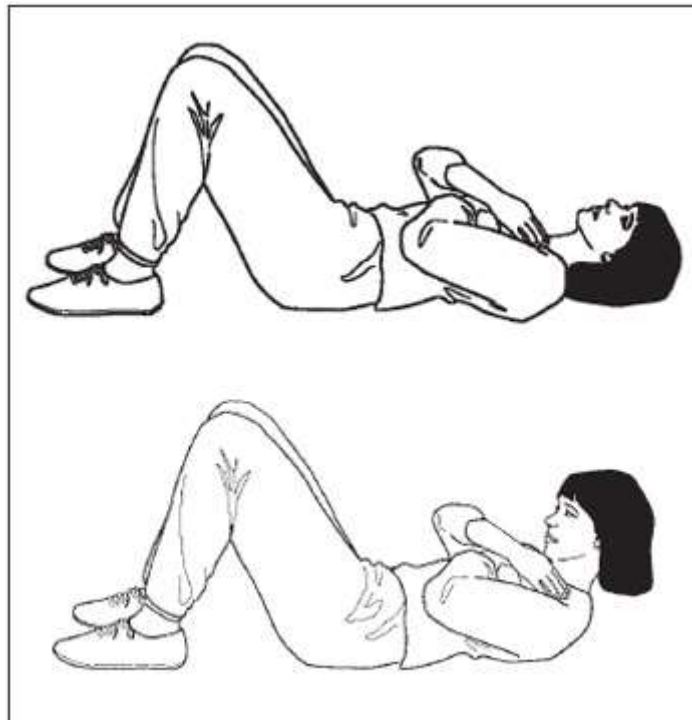


Figure E6

Persons who experience neck pain should position the hands behind the head to stabilize the neck.

- To work the lower abdominal muscles, clench the lower stomach muscles and carefully raise the straight leg 8 to 12 inches off the floor (**Fig. E7**), making sure the lower back stays firmly against the floor. Hold each leg raise for eight to 10 seconds before gently lowering to the initial position. As muscles strengthen, the goal is to do two sets of ten lifts.



Figure E7

- Water exercises are a great way to build up the strength of the lower abdominal muscles. It can be as simple as walking in waist-deep water to reap the benefits.

Exercise for Sciatica Caused By Spinal Stenosis

Sciatic pain that occurs because of nerve root inflammation or impingement is likely the result of spinal stenosis. This condition tightens or constricts the passageway of the nerve. A common sign of spinal stenosis is sciatic pain radiating down the sciatic nerve to the leg when walking, only able to achieve pain relief when seated.

Exercises for Sciatica Pain from Spinal Stenosis

To relieve sciatica caused by spinal stenosis, a spine specialist is likely to recommend flexion exercises, or forward bending. By bending forward and flexing the lower spine, the nerve passageways are opened and the inflammation or impingement is reduced. For this reason, patients with spinal stenosis tend to find relief when bending forward (propping up on a store cart, walker or cane) as opposed to standing upright.

Back exercises designed to relieve the sciatica pain from spinal stenosis generally include a mixture of particular strengthening and stretching exercises that concentrate on:

1. Backwards bending - stretches the back muscles holding the spine in extension.
2. Forward Bending - strengthening the back muscles supporting the spine into flexion.

Exercises for Sciatica Pain from Spinal Stenosis: Stretching

Stretching exercises for the low back muscles responsible for supporting the spine during low back extensors (backward bending position) are usually held gently for 30 seconds. Some of these sciatica pain exercises include:

- *Back flexion.* Lie on the back with your body straight and slowly bring the knees to the chest until you feel a comfortable stretch (**Fig. E8**). Hold for 30 seconds, then gently return to the initial position. The goal is to repeat this flex four to six times.



Figure E8

- Start down on the hands and knees, before shifting weight back on the heels with the chest lowered and arms outstretched (**Fig. E9**). Hold for 30 seconds, then gently return to the initial position. The goal is to repeat this stretch four to six times. Avoid bouncing on heels.



Figure E9

Strengthening Exercises for Sciatica Pain from Spinal Stenosis

Strengthening exercises for spinal stenosis are centered around building strength in the lower abdominal muscles. Some of these exercises include:

- Lie on the back and push the lower back into the floor by clenching the lower stomach muscles, which pulls the belly button, or navel, in and up (**Fig. E10**), hold for 10 seconds. The goal is to repeat this press eight to ten times.

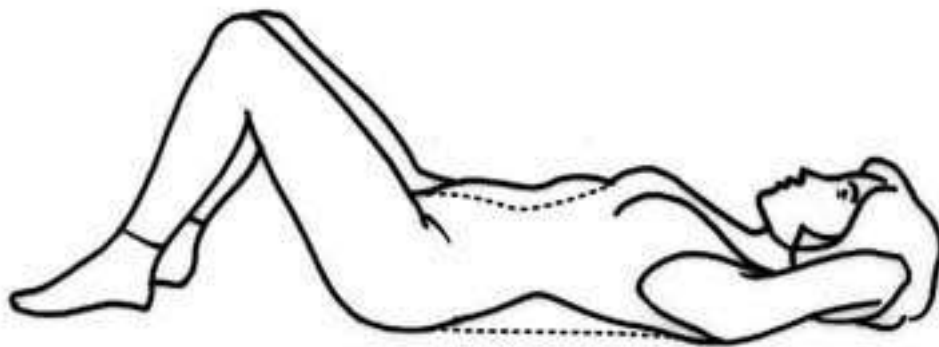


Figure E10

- *Hook-lying march.* A more progressive sciatica exercise, the hook-lying position is to be held while marching in place, gently lifting alternate legs 3" to 4" off the floor (**Fig. E11**). The goal is to 'march' for 30 seconds, and do this two or three times, taking 30-second breaks after each repetition.

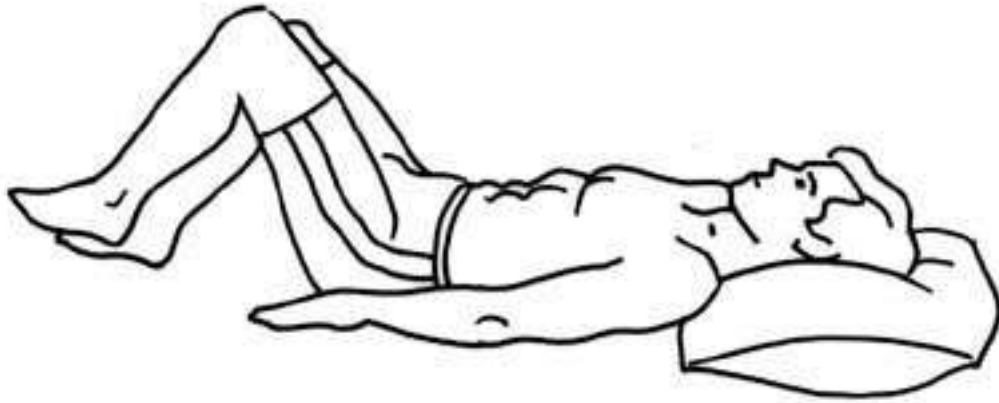


Figure E11

- *Curl-ups.* Spine specialists also prescribe a strengthening exercise to build strength in the lower abs called a curl-up (**Fig. E6**). To do a curl-up, fold arms across chest, straightening the back by clenching the lower abs, then lifting the head and shoulders off the floor. Hold for two to four seconds, before gently lowering to the initial position. As abs strengthen, the goal is to do two sets of ten curls.

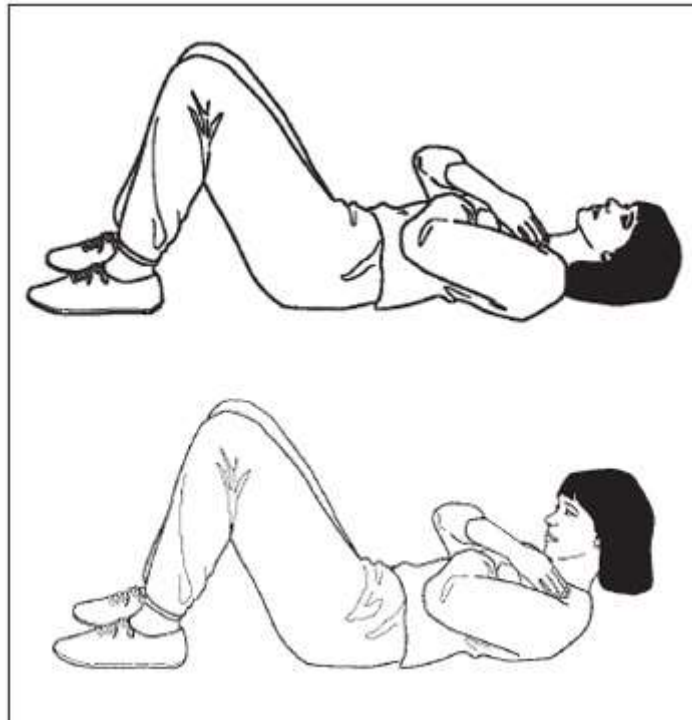


Figure E6

Exercise for Sciatica Caused by Degenerative Disc Disease

Though the most common symptom of degenerative disc disease is lower back pain, if a degenerated disc puts stress on a nerve root in the lower back it can bring about a form of sciatica.

Exercises for Sciatica Pain from Degenerative Disc Disease

The sciatica exercises generally prescribed to treat a degenerative disc and the subsequent sciatica pain is a dynamic lumbar stabilization program.

Relieving sciatic pain from degenerative disc disease involves discovering a comfortable position for the pelvis and lower spine, as well as conditioning the body to uphold this position throughout activities. Through proper

implementation, it is possible to improve the sense of movement of the lumbar spine (proprioception) and decrease excessive motion at the spinal segments. Doing so reduces the amount of inflammation at these segments, reducing the pain and preventing future damage from occurring.

Dynamic Lumbar Stabilization Exercises for Sciatica Pain

Though they may appear easy, patients often have trouble with dynamic lumbar stabilization exercises and hands-on instruction is necessary to make sure patients receive all of the benefits.

This exercise program gradually progresses. Patients begin with simpler exercises and master the lower level program before moving on to more advanced, difficult exercises. The key thing to keep in mind when doing these exercises is feeling and controlling motion in the spine. When learned, the body will ultimately take over and do this instinctively instead of requiring the concentration needed at the start.

Degenerative Disc Disease Exercises When Lying on Back

Here are a few examples of dynamic lumbar stabilization exercises that are completed when lying on the back:

- *Hook-lying march.* Patients start by lying with their back on the floor, with knees bent and arms at sides, clench the stomach muscles and gently lift legs 3 to 4 inches from the floor and then alternate (**Fig. E11**). Strive to 'march' for 30 seconds, repeated two or three times, taking a 30-second pause after each repetition.

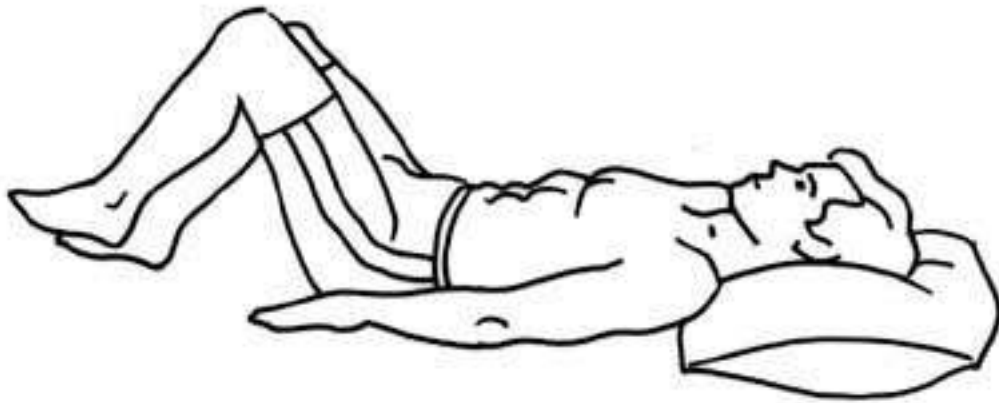


Figure E11

- *Hook-lying march combination.* Carry out the exercise outlined above, but add lifting and lowering the opposite arm over the head (**Fig. E12**).

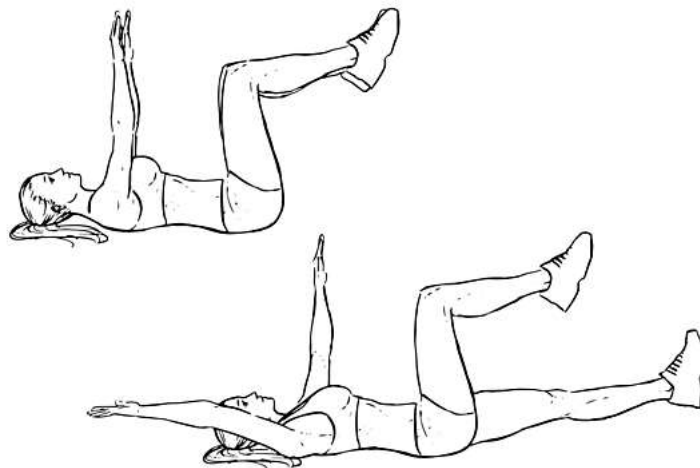


Figure E12

- *Bridging.* While lying on the back with the knees bent, gently lift the buttocks off the floor (**Fig. E13**). Hold bridge for eight to 10 seconds, before gently lowering to the initial position. As muscles strengthen, the goal is to do two sets of ten bridges.

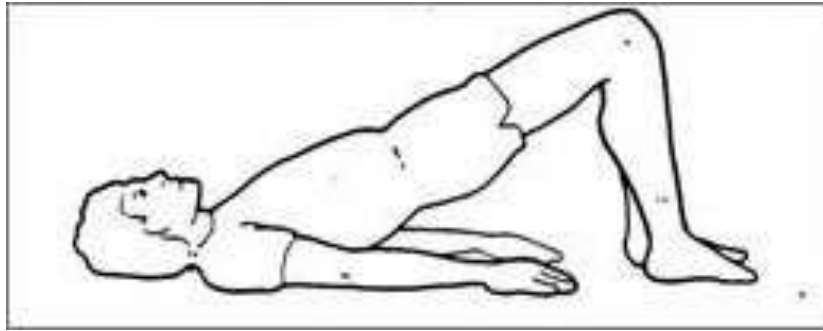


Figure E13

All of these exercises should be completed with a rigid trunk. Clenching the lower stomach muscles and buttocks to straighten the back, or *pelvic tilt* (**Fig. E10**), is a good method for finding the most relaxed position for the lower back.

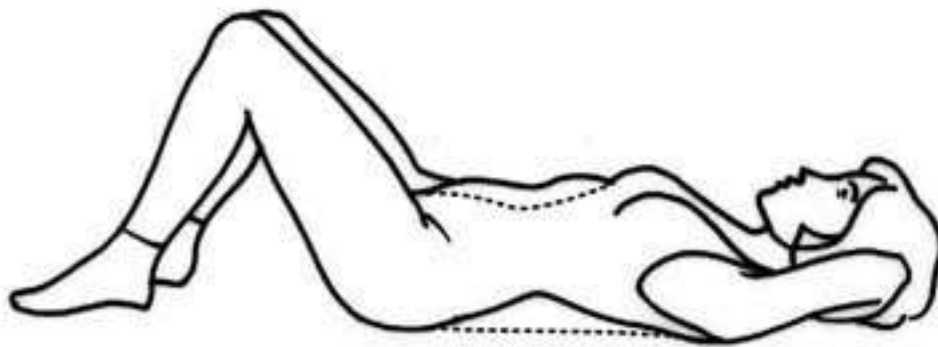


Figure E10

Degenerative Disc Disease Exercises When Lying on Stomach

The very same pelvic tilt (clenching the lower stomach muscles to straighten the lower back) is used when doing stabilization exercises when lying on the stomach in the prone position:

- Lying on the stomach, with elbows straight and arms stretched over the head, lift one arm and the opposite leg 2 to 3 inches from the floor (**Fig.**

E5). Hold for four to six seconds, before gently lowering to the initial position. As muscles grow stronger, the goal is to do two sets of opposite side raises.



Figure E5

- Lift one leg behind with the knee somewhat bent and without an arch in the neck or back (**Fig. E14**). Hold for four to six seconds, before gently lowering to the initial position. As muscles strengthen, the goal is to do two sets of ten leg raises.

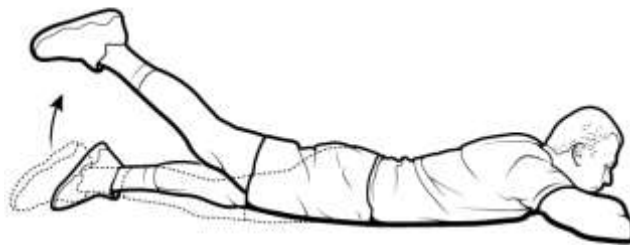


Figure E14

Related stabilization exercises can be completed while kneeling on hands and knees in the 4-point position, lifting the legs and the arms only as high as can be managed, keeping the trunk stable with no sagging or twisting:

- Lift one leg behind with the knee somewhat bent and without an arch in the neck or back (**Fig. E15**). Hold for four to six seconds, before gently lowering to the initial position. As muscles strengthen, the goal is to do two sets of ten leg raises.

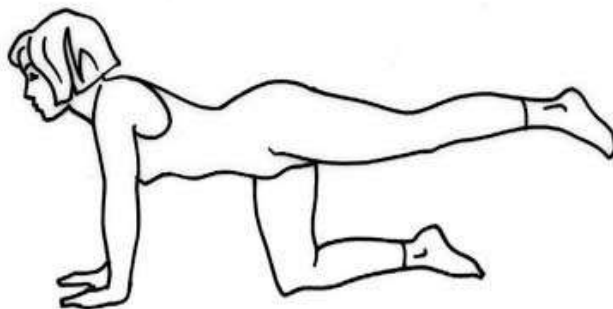


Figure E15

- For a more progressive exercise, lift one leg with the knee somewhat bent and without an arch in the neck or back and also lift the opposite arm (**Fig. E16**). Hold for four to six seconds, before gently lowering to the initial position. As muscles get stronger, the goal is to do two sets of ten leg raises.

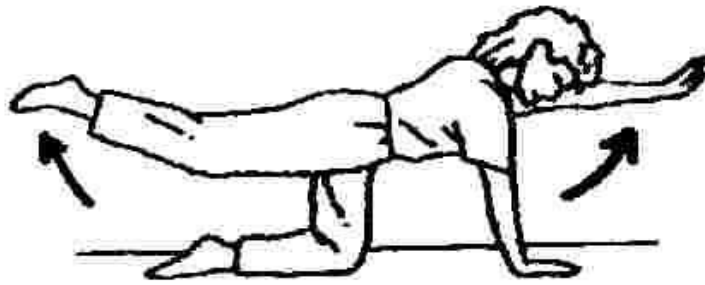


Figure E16

Exercise for Sciatica Caused By Isthmic Spondylolisthesis

It is possible for sciatica to stem from isthmic spondylolisthesis when the condition creates nerve root inflammation or pinching. In general, isthmic spondylolisthesis tends to impact or impinge the L5 nerve root.

To treat sciatica caused by isthmic spondylolisthesis, a spine specialist usually recommends a regimen of sciatica exercises that combines:

- Stabilization exercises, as in the case of degenerative disc disease
- Flexion exercises, as in the case of spinal stenosis

The reason for this type of sciatica exercise routine is to condition the lower spine to maintain stability when flexed. As a result, sciatica exercises for isthmic spondylolisthesis combine elements of both programs.

Exercises for Sciatica Pain from Isthmic Spondylolisthesis

Though they may appear easy, these sciatica exercises cause many patients trouble and hands-on instruction is necessary to ensure patients are doing them properly and receiving all of the benefits.

There are three exercises that are typically recommended for sciatic pain caused by isthmic spondylolisthesis, including:

- *Curl-ups.* Making the abdominals stronger with the curl-ups (**Fig.E 6**) also helps support a proper lumbar spine position. Lie on the back, bend knees, fold arms across the chest, tilt the pelvis to straighten the back by pulling the belly button, or navel, in and up. Then curl-up, raising the head and shoulders off the floor. Be careful not to raise too high in a way that shifts the head and chest towards the ceiling. Those patients with cervical spine problems should place the hands behind the head for support. Hold for two to four seconds, before gently lowering to the initial position. As muscles strengthen, the goal is to do two sets of ten curls.

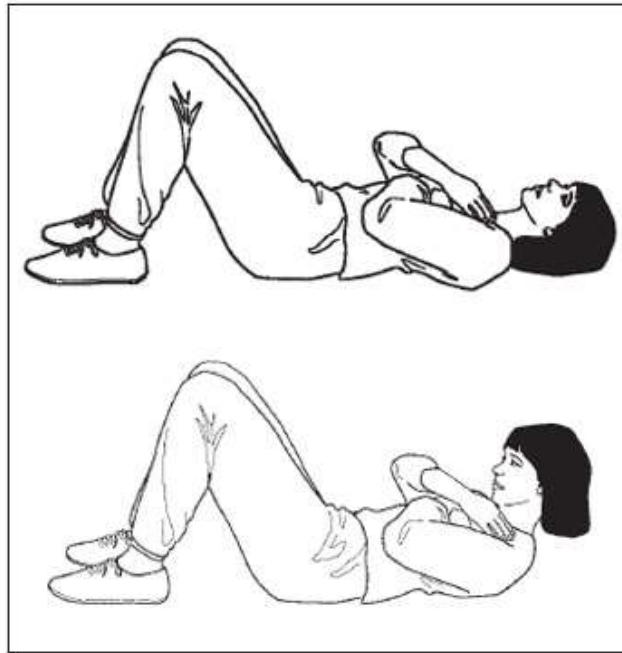


Figure E6

- *Pelvic tilt.* Spine specialists treating patients with sciatica from isthmic spondylolisthesis often prescribe the pelvic tilt (**Fig. E10**), because it keeps the lower spine flexed. Lie on the back, bend knees and tighten the lower stomach muscles to straighten the back, pulling the belly button in and up. Hold for 10 to 20 seconds, then let the muscles relax. To strengthen the lower stomach muscles, the goal is to do a set of 10 pelvic tilts.

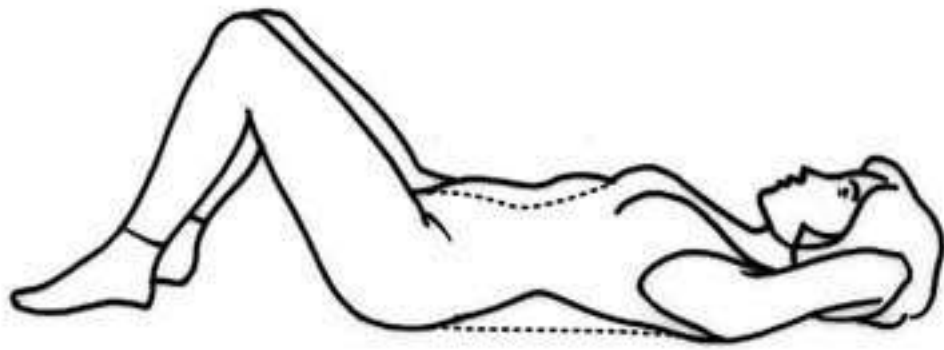


Figure E10

Keep in mind: The pain caused by isthmic spondylolisthesis can be reduced by conditioning the lower spine to stay stable when flexed, as with tying shoes or picking an item off of the floor.

- *Hook-lying march.* As another form of stabilization exercise, the hook-lying march (**Fig. E11**) and hook-lying combination (**Fig. E12**) are again useful here as well. Aim to 'march' for 30 seconds, two to three repetitions, with 30-second breaks in between repetitions.

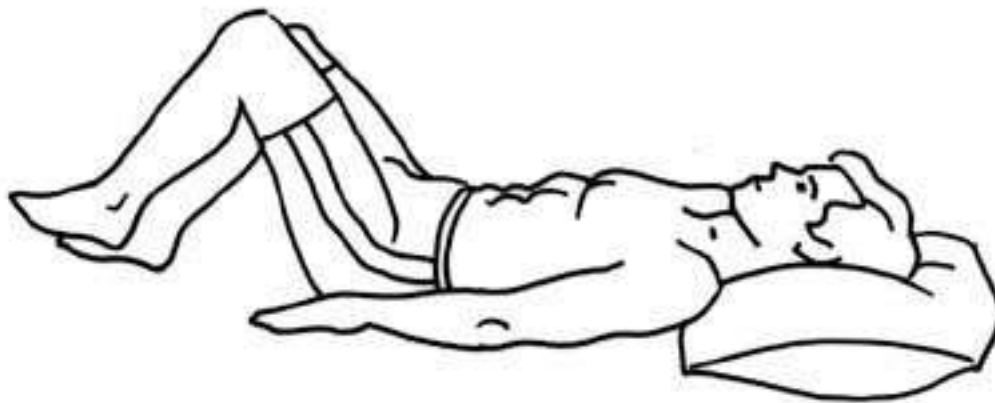


Figure E11

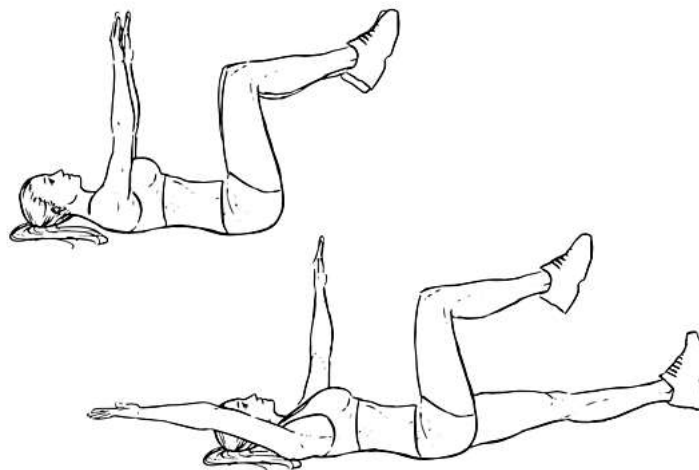


Figure E12

Stretches and Exercises for Sciatic Pain Caused By Piriformis Syndrome

Because piriformis syndrome commonly causes pain throughout the sciatic nerve, it is frequently thought that piriformis syndrome leads to sciatica.

Piriformis syndrome, however, does not feature a disc protruding from the spinal column that pinches or inflames the nerve root, or a radiculopathy, meaning it is actually not sciatica.

Rather, in the case of piriformis syndrome, it is the piriformis muscle that puts stress on the the sciatic nerve, leading to sciatic pain.

The piriformis muscle is found deep in the hip and follows a path that is near the sciatic nerve. If the piriformis muscle tightens and/or is inflamed, it can irritate the sciatic nerve. A pain very similar to sciatica is felt, with numbness and tingling that extends from the low back to the buttock and, in some cases, through the leg and down to the foot.

Stretching Exercises for the Piriformis Muscle

Stretching exercises for the piriformis muscle are nearly always required to reduce the pain throughout the sciatic nerve and they are done in a few different positions.

Some of the exercises to stretch the piriformis muscle, hip extensor muscles or hamstring muscles can help relieve the pain that radiates throughout the sciatic nerve and restore a patient's full range of motion.

Below are a few of the stretching exercises typically recommended to reduce sciatica pain caused by piriformis muscle issues:

Stretching the supine piriformis

- While lying on their back with legs flat, patients should pull the distressed leg up toward the chest, holding the knee with the hand on the same side and use the opposite hand to clutch the ankle. Leading with the ankle, guide the knee towards the opposite ankle (**Fig. 17**) so that a stretch is reached. Be careful not to force the knee or ankle past a comfortable stretch. Hold for 30 seconds before gently returning to the initial position. The goal is to do one set of three repetitions.

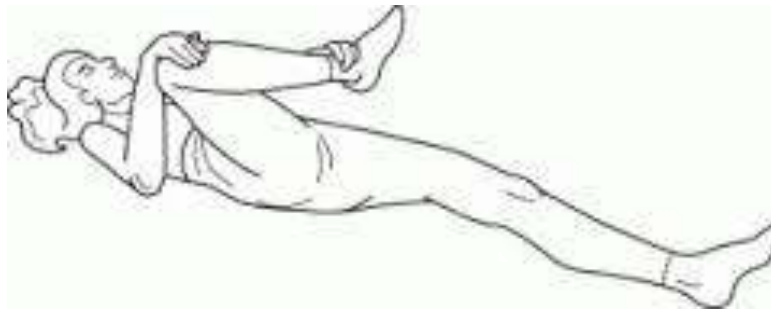


Figure E17

- Start by lying on the back with the legs flat. Lift the troubled leg and put that foot down on the floor outside the opposite knee. Pull the knee of the bent leg over the midway point of the body using the opposite hand or a towel, when required (**Fig. E18**), until stretch is reached. Be careful not to force the knee beyond a comfortable stretch or to the floor. Hold for 30 seconds, before gently returning to the initial position. The goal is to do one set of three repetitions.



Figure E18

- Start by lying on the back with the distressed leg crossed over the other leg at the knees and both legs bent. Softly pull the lower knee up towards the shoulder on the same side of the body (**Fig. E19**) until stretch is achieved. Hold for 30 seconds, before gently returning to the initial position. The goal is to do one set of three repetitions.



Figure E19

Reduce Sciatic Pain with Sacroiliac (SI) Joint Exercises

Differences of Sciatica and Sacroiliac (SI) Joint Dysfunction

When there is an interruption in the regular motion of the sacroiliac joint, it becomes inflamed even though the sacroiliac joint, or the SI joint, inherently features a rather constrained range of movement. When there is inflammation of the SI joint, the segment of the sciatic nerve following the path adjacent to the joint tends to become irritated.

Sacroiliac joint dysfunction is similar to sciatica because of its symptoms and the way it impacts the sciatic nerve. The main difference is that sciatic nerve pain as a result of SI joint dysfunction does not occur from the compression of the root of a nerve as it leaves the back, as is the case with sciatica.

Stretch to Relieve Sciatic Pain Caused By Sacroiliac (SI) Joint Dysfunction

Completing range of movement exercises that address the sacroiliac joint tends to restore movement to normal and relieve the irritated sciatic nerve. A few useful exercises to relieve sciatic pain from sacroiliac joint dysfunction are:

- **Press up.** Starting in the prone position, push up on hands as the pelvis continues to touch the floor. Relax the low back and rear for a light stretch (**Fig. E2**). Hold this press up position at first for five seconds, and

progressively work toward 30 seconds for every repetition. The goal is to do 10 repetitions.



Figure E2

- **Single knee to chest stretch.** Draw in one knee to the chest and then the other, softly pumping the knee three to four times at the top of the range of movement. Complete 10 repetitions for each leg (**Fig. 21**).



Figure E21

- **Lumbar rotation (non-weight bearing).** Lie on the back with knees bent and feet level on the ground while moving the the knees to the left and

right. The knees should not shift that much and the thighs should touch. The lower back should remain rather stable. Do this exercise for half a minute (**Fig. E22**).

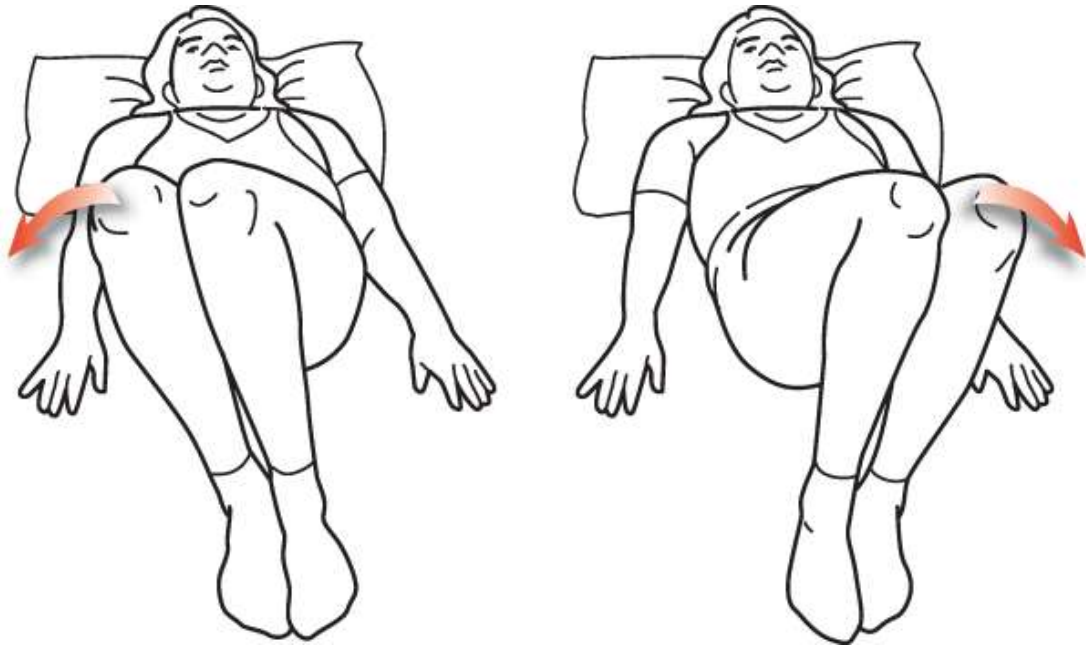


Figure E22

CHAPTER 9. THERAPY WHILE YOU SLEEP

No mattress whether soft or firm can keep your whole back completely straight. To keep your spine straight, muscles would need to work, and that muscle tightening would make you less comfortable, not more relaxed (don't do it!). Hopefully, after you've fallen asleep, your body system would have the knowledge to let some of that excess muscular stress go.

When you sleep while lying on your side, your backbone gives in to gravity, bending a bit toward the ground. The softer the surface, the bigger the curve, but even when you lie on a hard floor, gravity attracts your backbone into a bend. Instead of flexing to try to keep your backbone straight, use this gravity-induced curve for self-therapy. The following lesson session uses gravity and your breathing to carefully and slightly undulate your spine, thus improving blood flow through your back and down to your feet.

What you need: Two pillows (one for under your head, one for your legs) and a comfortable place to sleep.



Figure F

1. Lie on whatever side that is most comfortable for you.
2. Bend your knees to the angle that's very comfortable for you. Then place a pillow between your legs from your knees down to your feet. Place the second one under your head. Ensure that your bottom shoulder is below, not on top of the pillow - you just want to support your neck without putting more pressure on your spine.
3. For a brief moment, try to keep your spine as straight as a stick, parallel to the floor. Observe if that makes your back less, instead of more, comfortable. Can you breathe very easily when you do that? No, so let that go!
4. Exhale forcefully several times, allowing your inhalation to follow naturally. As you exhale, the side of your rib basket nearest the ceiling can fold or "cave-in." Because your spine connects to your ribs, this subtly relaxes your spine a bit more toward the floor in a gentle curve. As you inhale, that upper side of your rib basket stops "caving in" and lifts your spine.

It's the gentle undulation of the whole length of your spine, down into the deeper curve and back up, that's therapeutic—so don't fight it by tensing or guarding any part of your body. Don't even tense your jaw!

5. Each time you inhale; allow your back to widen. Your lungs are like balloons. They don't just expand forward but also out to the sides and into your back. This relaxes your whole back all the way down through your pelvis, where your sciatic nerves thread to reach each leg. You will eventually find that your lower back can expand a bit with each inhalation. When you really relax you may even feel movement under your coccyx.

N.B. If sleeping on the side does not feel natural for you and you opt to sleep on your back instead, then place a folded pillow under your knees and make sure the pillow under your head is not too high (Figure G).



Figure G

CHAPTER 10. BALANCE YOUR DIET

Regardless of the cause of your sciatic pain whether it is tissue-based or nerve-based, you're going to improve your condition by paying attention to your diet. It's not about giving up on eating the food you love to eat. It is about adopting a healthy, balanced diet. Below are the highlights of how important your nutrition is to your ability to live without pain. Following the tips below will greatly speed up your recovery from the pain and keep you pain-free thereafter.

#1. Water

Water is essential for the body. The body as a whole, and the spine itself, consist mostly of water. When we drink more, we re-inflate the spine after they've been depleted throughout the day. Drinking water also removes toxins from the body system and encourages effective kidney functions. Regular flushing of toxins can help prevent trigger points from developing and reduce the severity of those already existing in the muscle tissue.

Drinking water makes the joints function more efficiently because it cushions the muscular tissue and provides more support for movement. It fills up the stomach, preventing us from overeating, and allows us to keep our energy at the optimum level. The “eight glasses per day,” rule is a perfect general rule to follow, but keep in mind that everyone is different. Everyone has a different weight, metabolism, and energy level, so you need to experiment with what’s right for you. Men typically require more water per day than women. Individuals living in warm environments should drink plenty of water more often. As we grow older, our systems are less able to determine when we need more water, so the elderly should drink water on a frequent schedule, even if they don’t feel thirsty.

When you’re doing an exercise, drink more, as your body system will use more. If you sit at a computer several hours a day, ensure to get up every hour and drink a cup of water. Try drinking a full glass of water before you start your day in the morning and another full glass with dinner at night. You should substitute sweet sodas with water to decrease calorie consumption and to keep the caffeine from using up the water in your body.

The best way to assess if you’re getting enough water is to check your urine. It may sound awkward, but it’s a simple way to see if you are getting enough water in your body. Mid-day is the perfect time to check. A light yellow-colored to clear color is best, so if you’re seeing a deep yellow-colored urine, drink more.

Eating healthy and drinking the right amount of water alone may not cure your pain completely, but it’s guaranteed to help and practically essential to ensure you remain pain-free.



Figure H

#2. Take a High-Quality Multivitamin and an Omega 3 Supplement

The best advice for anyone with sciatica pain is to eat a balanced diet rich in vitamins, minerals and other essential nutrients. However, for many people, this is a hard task. We often don't have the time to cook at home because we're on the go all time, and even if we do eat a lot of fruits and vegetables, and consume oily fish regularly, we can never be certain of their vitamin and mineral content unless they are organic or you grow them yourself. And even then, most of these fruits are grown in nutritionally deficient soil, so no matter how much of the fruit you eat, you still are likely to lack some vitamins. To provide the body system with the nutrients it needs and help fight inflammation, swelling and pain, a high-quality multivitamin supplement is recommended.

In addition, unless you regularly consume oily fish such as salmon and mackerel (about 2 portions per week), then you should also start using an omega 3 supplement (fish oil). Use 2-3 grams daily during a sciatic flare-up, and 1 gram daily once the pain is gone to keep you at optimum health.

#3. Use a Natural Anti-Inflammatory and Pain Reliever

Our modern-day eating plan and style consist mainly of processed and nutritionally deficient foods, and thus triggers inflammation and swelling in our body systems. Inflammation causes pain in our nerves, muscles, and joints, and it is always a big contributing factor in all kinds of sciatica pain. What we need are more of the nutrients that tackle inflammation and swelling (found in fresh fruits, fresh vegetables, nuts and fish) and more of our own natural anti-inflammatories—the proteolytic enzymes that stop swelling and clear scars. Unfortunately, most of us aren't consuming enough anti-inflammatory nutrients, and as we grow older, our body systems make less of these anti-inflammatory substances. So, first, as mentioned earlier, we need to start eating good food and take a high-quality multivitamin and an omega 3 supplement to be able to provide our body the nutrients needed to deal with sciatica. We need to renew one's body system with more of its own natural anti-inflammatory substances. When we do this, two things happen: The swelling and inflammation reduce and we clear out the scars that they leave behind.

#4. Avoid Inflammatory Foods

Many of the foods we eat today actually promote inflammation and swelling. You want to avoid eating these as much as possible or at least limit the quantity that you eat. These include processed foods, high-sugar products, fatty food, and refined grains.

- **Processed Foods-** Food filled with additives, preservatives and processed with chemicals introduce foreign elements into our body system. Our immune system recognizes these elements as a threat and revs up inflammation to defend against them. In addition, foods deprived of their natural benefits during processing—like white flour—break down too easily and raise certain hormone levels, encouraging inflammation.

- Fatty foods- Keep in mind not all fats are bad for you. But even too much of good fats are not ideal. The fat you should avoid completely is partially or fully hydrogenated fats, trans fat, and saturated fat. These body fats help trigger inflammation mainly because they throw off the body's natural balance of fat. Reduce your consumption of these products and choose meats such as grass-fed (and free range) beef, chicken, and turkey; wild-caught (not farm-raised) fish like sardines, salmons, and cod. Consume nuts such as walnut, cashew nuts, and beans. These types of foods contribute the healthier omega-3 fats and help the body system fight off inflammation. In addition, as mentioned in earlier chapters, nuts are rich in magnesium which acts as a natural muscle-relaxant.
- High-sugar products- A high sugar content in the body leads to the release of regulating hormones, which encourage swelling and inflammation. Sugar is everywhere in our food, so to help reduce sciatica problems, you really need to watch your sugar intake. Take sodas and other sugary drinks (including fruit juices) in small quantities (or avoid completely if possible), and use water, teas (hot and iced), low-sugar coffees, almond and seltzer waters instead. Eat less of cakes, candies, donuts, sweets, and pies. Try fresh fruit desserts, frozen yogurt, and sugar-free products instead.
- Refined grains- Processed or refined grains are usually in flour, cereal products, bread, cooked goods, and snacks. They're usually listed as "enriched" flour or anything other than the "whole." In essence, refined grains have been broken down for you, so your body system doesn't have to do the work. Since these items break down too easily in the body system it stimulates the production of regulatory hormones that may trigger inflammation and swelling. Instead, choose foods created with whole grains, such as oatmeal; brown rice; and whole-grain bread, and whole-grain cereal products.

A Better Diet Takes Stress off Your Back

These simple dietary changes do a lot to treat and manage sciatica pain and they don't take up much time. Try it for one to two weeks and I'll bet you'll find yourself feeling a lot better.



Figure 1

CHAPTER 11. HOME SCIATICA PHYSICAL THERAPY

Trigger Point Therapy

A trigger point is basically a small, painful, hard knot within a muscle. Imagine the muscle as a spaghetti, with each directly, clinging noodle representing each muscle fiber. In a normal muscle, all the materials are long and even, like pasta, or like the string of a guitar. A trigger point causes an unnecessary shrinkage so that some of those fibers twist or seize up, into a knot. When a knot appears in a muscle, it is a source of pain because the muscle loses access to the nutrients and other substances in the blood, and second, without efficient blood flowing through, toxins tend to accumulate in the knotted position. The muscles generally reduce as well, just like a string of guitar reduces when you tie a few knots in the middle of it (this often reduces the mobility and versatility in the affected part).

You can feel a trigger point with your hand. If you massage another person, when your fingertips run over hard spots under the skin of the person, they are usually trigger points. To be certain, check for the same hard spot on the opposite side of the body. For example, if you discover one near the right shoulder blade, check for another near the left shoulder blade. If you find another hard difficult spot, it's probably a bone, but if you don't, then the first one was a trigger point. These little knots are also generally sensitive to touch. So if you press on it and the person shouts, you can bet you've hit a trigger point. Trigger points also can cause general discomfort, pain or tightness, restless legs, and numbness in the hands and feet.

Trigger-point therapy is a technique by which steady, mild and sustained pressure is applied to the "knotted" area. Such pressure progressively relaxes

the muscles, making them relax and release, and help to loosen the knotted places. Since muscle tissue that have trigger points are generally too tight and too short, trigger-point therapy enhances elongation and relaxation. As the muscles return to a healthier and balanced form, they release all the trapped toxins that had been stuck there, returning them to the blood vessels where they can be cleared away. Blood vessels flow through the affected area, enhancing waste removal and healing. Gradually, the muscle spasm reduces, inflammation and swelling reduce and the back pain vanishes completely. These kind of treatments are beneficial for any kind of recurrent problems that are characterized by trigger points, which could include lower- back problems, upper-back discomfort, throat discomfort, any muscle-based discomfort, and fibromyalgia—even some nerve-based discomfort like sciatic nerve pain and herniated disks, if the muscle tissue around the anxiety are turned up to a trigger point.

Three Trigger-Point Solutions

There are about three solutions to trigger:

- The handheld pressuring device,
- Trigger point massage therapy
- The self-treatment platform.

The Handheld Pressuring Device

A popular item on the market is the portable self-massager, usually a plastic device shaped like a cane or stick, with curved “balls” at either end and extra “steps” along the straight edge. These rounded areas are meant to be used to apply pressure to your trigger points.



Figure J

Trigger-Point Massage Therapy (Professional Therapist)

Trigger-point massage therapy can be a very efficient therapy. It's a form of massage therapy in which the specialist applies deep pressure to the specific area of your body—your trigger points. First, you're lying down, resting, while the specialist works on your trigger points, so you don't have the problems that exist with the pressuring gadget.

Your back muscles are as relaxed as they can be, and the massage therapist commonly uses his elbow to apply vertical pressure on each trigger point.

Trigger point massage therapy is different from normal massage therapy.

Instead of applying longer sloping strokes that gently increase the length of your muscles, the specialist will apply targeted, firm, and continual pressure (about 7–10 seconds) directly on the trigger point. At first, this probably might be painful and stimulate the pain—as well as release toxins—both of which can be

unpleasant. However, if appropriate and regular pressure is used regularly, eventually the trigger point will relax and open up, and your pain will disappear. The pressure actually forces blood flow into the trigger-point areas, giving the muscle cells in the trigger point the oxygen and energy needed to stimulate the relaxation mechanism. Trigger-point massage therapy is a great remedy. The only disadvantages are that it can be very expensive and can take up a lot of your time and effort. One treatment isn't going to be enough. You need to keep coming back a few times to completely cure the pain—often several times a week—and since this kind of specialized massage therapy generally costs \$60–\$100 per hour, it can add up very fast.

Trigger-Point Self-Treatment Platform.

The most cost-effective and efficient technique for treating trigger points is to use a self-treatment system. You use this treatment strategy by lying down on a system/platform that has a variety of soft, rubber-tipped pressure bumps. You set up this system to match the trigger points on your back and leg. For example, if you have a trigger point just under your right shoulder blade, you position a pressure bump on the system/platform in the position where your right shoulder will be when you lie down. The idea is not to apply pressure to every part of your back and leg, but only to the parts that have trigger points.

Position the rubber-tipped pressure bumps where you need them and then lie down on top of them. Let gravity take over. Because the platform comes with pressure providers of different heights, you can choose the intensity of the pressure. Shorter providers give lighter pressure; longer ones, more intense pressure. This allows you to configure the platform to mirror the location and severity of the trigger points in your back. There are several advantages to this sort of device. First, you're not requiring sore, irritated muscles to work harder in

an effort to gain relief. Second, you're investing once in a device you can use for the rest of your life, so you're saving a significant amount of money. Third, you're putting yourself in charge of your relief, which means you can use the device when it's most convenient for you, and as often as you need. Finally, it's the sort of solution that gives you immediate feedback. When you lie on a trigger point, you'll know it, because of the sour, numb, or slightly painful reaction in the muscle. If you don't feel that reaction, you can adjust your position on the platform or adjust the pressure providers to a location that will be more effective. It's a very intuitive process that's easy to perform.



Figure K

Reorganize Your Skeletal System

Sciatica is not a disease but a collection of symptoms frequently resulting from a less than ideal use of your body. The pain is telling you to do something differently so you don't keep hurting yourself. Don't ignore your pain.

Gain and Maintain Posture From The Bottom Up

There's an easier, more comfortable way to gain and maintain your posture than tightening your upper body and lower back. Think of your body as skeletally engineered. What's below is meant to support what's above. This is the opposite of maintaining your posture from the top down.

Example of posture from the top down -

1. Sit in a chair with a firm seat.
2. Slouch the way you would at the computer or watching television.
3. Use your muscles to pull your shoulders back (the way many people try to effect better posture).
 - Is your head still forward, even though you pulled your shoulders back?
 - Does this make your neck uncomfortable? (If you stay this way, you invite neck and shoulder problems as well as lower back problems.)
 - Can you use your arms freely and efficiently when you pull your shoulders back to stay upright?
4. With your shoulders still pulled back, use your muscles to pull your head back over your body so that you look like you are "in good posture."

- How comfortable is this?
- Could you maintain this position for long without hurting?
- Is your lower back still in a slouch even though you've pulled your upper body upward and backward?
- Can you feel how hard your lower back muscles are working to help your upper body?

Example of gaining and maintaining posture from the bottom up :

Return to your starting position. That is, sit on a chair with a firm seat and slouch the way you did at the beginning of the experiment.

Put your hands on your iliac crests (the tops of your hip bones). Notice that when you slouch, the iliac crests tilt behind you. The more you slouch, the further back your iliac crests tilt.

Rotate the top of your pelvis forward until your iliac crests point toward the ceiling instead of behind you.

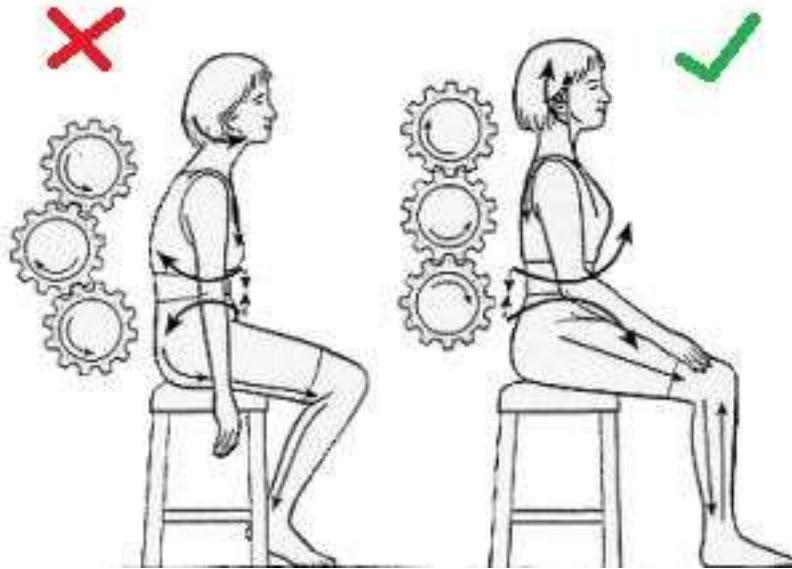


Figure L

- Did this take you into an upright posture with less effort?
- Did you notice that your body moved into this upright posture without your shoulder muscles having to tense?
- Did your pelvis bring your head up over your body without your having to tense your neck muscles?
- Are you now taller than a minute ago?

This is the posture that you need to be in!

CHAPTER 12. OTHER IMPORTANT TIPS FOR SCIATICA

Those who do not suffer from sciatica pain find it very hard to empathize with those who do have it; they can no longer do the stuff they enjoy and they have problems doing simple everyday things they like tying their kids' shoelaces without feeling unbearable pain. What wouldn't they do to be relieved of this irritating sciatic nerve pain. And if you are the one suffering from sciatica, there is hope as there's a lot you can do yourself to manage it. First of all, get a proper and correct diagnosis from your physician to be sure that your back and leg is caused by sciatica. Of course, you can take drugs which will reduce the pain and you'll feel better. It's easy then to overstress yourself, resulting in more pain. If you're willing to make a few lifestyle modifications, you'll discover it's easy to get rid of sciatic nerve pain without drugs.

- Walking, as we all know, is one of the best exercises. Take a walk down the street, square your shoulder area and swing your hands. This will exercise your spine as well as your leg muscles making them more flexible and stronger.
- Check your posture - and ensure you sit well in your chair. If it has a footrest, then raise it up a little, so that your knees are a bit higher than your hips and you'll be relieved of the sciatic pain.
- While reading a book or a newspaper; place it so that you don't have to bend forward. Point your display screen so that you're looking directly at it without bending or flexing ahead.
- And when you go to bed, put a pillow in there to avoid you from sleeping on the stomach.
- Try not to stay too long in bed if you're having a sciatica flare-up as your muscles will tense up even more. Rest in your armchair and try switching hot

and ice packs on the affected area (not more than 15 minutes per package). This will relax the tensed muscles, relieving you of the sciatica pain.

- If your job requires that you remain seated in one spot, try taking a short break every hour, even if you just move around the table - it will relieve you of the sciatica pain as it will serve as a form of exercise for your legs and back.
- Do not bend to pick things from the floor. Kneeling is better. You also need to avoid sudden or jerky movements of your back or legs.
- Try to achieve a healthy bodyweight as excess weight strains the spine and joints. Try to reduce your intake of fatty and sugary foods, and increase the amount of physical activity you do.
- Use Headset for Phones- If you aren't doing so already, use an earpiece or a headset when talking on the phone. Prevent wedging the cell phone between your ear and your neck, as this places extra stress on your spine. Speakerphones are also good options.
- Make Your Car Seat Comfortable -Many of the same rules that apply to working at the computer also apply to driving. Make sure your lower back is well-supported. If your seat doesn't do it, get a support or orthopedic-type equipment. The back of your car seat should be reclined a bit, and the seat should be positioned such that your hips are level with or a little bit higher than your knees. Make sure you don't have to stretch too far for the steering wheel or pedals. Your hands should rest perfectly on the wheel, without pushing your shoulder forward. Above all, during long trips, stop, get out, move, and stretch.
- Use Posture Support Gadgets- This is essential to having fewer back problems.

- For Women: Avoid wearing High Heels -High heel shoes can make any back pain problem more intense. They shorten the calf muscles, affect your center of gravity, force you to overstretch your back to avoid falling forward, squeeze nerves and create trigger-point stress areas, and more. If you have to put on heels, try to stay with those that are 2 inches tall or less, and limit the number of hours you use them.