

Sciatic Nerve Pain Exercise and Stretch Program

The Pelvic Health Center
Madison, NJ

What is Sciatica?

Sciatica is not a condition in itself but a symptom of an underlying issue involving the sciatic nerve — the largest nerve in the human body. It refers to pain that radiates along the path of the sciatic nerve, which runs from the lower back through the hips and buttocks and down each leg.

Typical symptoms include:

- Sharp, burning, or shooting pain down one leg
- Numbness, tingling, or weakness in the leg or foot
- Pain that worsens with sitting, coughing, or sneezing
- Usually affects only one side of the body

Common Causes of Sciatica

1. Disc Herniation (Lumbar Radiculopathy)

A herniated disc occurs when the soft inner core of a spinal disc bulges out through a tear in the outer layer and presses on a nearby nerve root — often the L4, L5, or S1 nerves that contribute to the sciatic nerve.

Key Features:

- Sudden onset after bending, lifting, or twisting
- Pain often starts in the low back and travels down the leg
- Neurological signs such as numbness, tingling, or weakness
- Positive straight leg raise test
- May be confirmed by MRI

2. Piriformis Syndrome

In this condition, the piriformis muscle — a small muscle located deep in the buttock — spasms or becomes tight and compresses the sciatic nerve as it passes nearby or through the muscle.

Key Features:

- Pain is typically centered in the buttock
- Often does not involve lower back pain
- May worsen with sitting, climbing stairs, or after long walks
- Negative MRI and no spinal disc involvement
- Sciatic nerve irritation due to muscle compression, not nerve root

Treatment and Symptom Management

For Disc Herniation:

- Activity modification
- Anti-inflammatory medication
- Physical therapy (core stability, nerve glides)
- Epidural steroid injections
- Surgery in severe or non-responsive cases

For Piriformis Syndrome:

- Piriformis and hip stretching
- Myofascial release or massage therapy
- Strengthening of glutes and core
- Avoiding prolonged sitting
- Dry needling or injections (if conservative treatment fails)

When to See a Doctor

Seek immediate medical attention if you experience:

- Sudden weakness or loss of function in the leg
- Loss of bladder or bowel control (may indicate cauda equina syndrome)
- Severe, persistent pain that doesn't improve with self-care

Purpose of this Program

This program is designed to highlight exercises, stretches, and nerve glides to help reduce your symptoms. This can be used in preparation for or alongside physical therapy to address your sciatic nerve pain and help reduce your symptoms. You should still be evaluated by a physical therapist to determine the trigger of your pain and address any musculoskeletal, neuromuscular, and fascial restrictions which could be impacting your symptoms.

Each day of the program will include additional exercises based on if you likely have a disc herniation or a piriformis tightness causing your pain. This is based on assumption according to the descriptors above, and/or based on diagnostics from your medical doctor or physical therapist. It is highly suggested that you are evaluated to determine the cause of your pain for more accurate treatment and better recovery.

Day 1 – Mobility & Nerve Flossing

1. Pelvic Tilts – 2 x 10

- While standing, tuck your pelvis back by activating your deep core, and then stick your butt out as your pelvis rotates forward.
- You can also do this laying or sitting on a therapy ball.
- Exhale as you tuck your pelvis back, inhale as you rotate forward.

2. Cat-Cow Stretch – 2 x 10

- On all 4's, inhale and arch your back starting from your tailbone and moving up your spine (butt up, chest up, chin up). When you exhale, activate your deep core to bring your belly up and curve your back starting from your butt.

3. Sciatic Nerve Glides (Sliders) – 2 x 10 per leg

- **Seated:** While sitting upright, you slowly extend one leg forward as you lift your head. Then, you bend the leg and drop your head down, repeating this coordinated movement rhythmically.
- **Supine:** Lying on your back, you gently bring your leg up with a bent knee, then straighten the knee slightly as you point your foot, coordinating with neck position as needed.

4. Supine Hamstring Stretch (with band or towel) – 3 x 30 sec/leg

- Laying on your back, use a band or a towel around your foot and use your arms to lift your leg up keeping your knee straight. Lift as high as you can, keeping your knee straight and feel the stretch along the back of your leg. Repeat on the opposite leg.

5. Bridge (with hold) – 2 x 10, hold 3–5 seconds

- Lay on your back with your knees bent. Inhale, and then exhale while you activate your deep core and squeeze your buttcheeks to lift your hips off the ground. Hold 5-10 seconds. Slowly lower.

For Disc Herniation

- **Prone Press-ups (10x):** Lying face down, place your hands under your shoulders (like a push-up position) with your legs relaxed straight behind you. Gently press through your hands to lift your chest up, keeping your hips and pelvis on the floor. Hold 3-5 seconds.
 - Only press high enough to a comfortable position, this should not cause sharp pain.

For Piriformis Tightness

- **Glute massage with ball or foam roller (1-2 min/leg):** Using a firm ball (lacrosse ball or similar) or a foam roller, sit on the floor with your knees bent and feet flat with it

under your glute. Use your hands behind you for support and to adjust the pressure you use. Gently move your body forward/back and in a circle to roll over the muscle. If you find a sore spot, pause and hold for 10-15 sec. Repeat on the other side.

- **Seated Piriformis Stretch** (3x30 sec/leg): Sitting in a chair, bring your right ankle over your left thigh just above the knee (figure-4). Keep your back straight and lean forward from the hips, feeling a stretch in the right outer hip.

Day 2 – Core Activation & Glute Strengthening

1. Dead Bug (arms and legs alternating) – 2 x 10

- Laying on your back, bring your arms straight above your shoulders and bring your legs to a 90/90 (tabletop) position. Activate your deep core, and then slowly lower your right leg straight and then bend it back up. Repeat on the left. Then lower your right arm overhead and bring back up, and repeat on the left.
- To progress, move the right arm at the same time as the left leg, and vice versa

2. Bird-Dog (with hold) – 2 x 10/side

- On all 4's, activate your deep core to keep your back flat. Keeping your core stable, lift your right arm out straight and then bring it back down, repeat on the left. Then kick your right leg out straight and return to the starting position, and repeat on the left.
- To progress, move the right arm at the same time as the left leg, and vice versa

3. Clamshells (with band if tolerated) – 2 x 15/leg

- Laying on your side with your knees bent to 90 degrees, keep your feet together and open up your knees by squeezing your outer hip muscles.

4. Standing Hip Abduction (hold chair for balance) – 2 x 12/leg

- In standing, hold onto a chair or counter for balance. Keeping your toes pointed straight in front, lift your right leg out to the side. Move slowly with intention, focusing on squeezing the muscles on the side of your hip. Lower down to the starting position. Repeat on the left

5. Piriformis Stretch (lying figure-4) – 3 x 30 sec/leg

- Lie on your back, cross one ankle over your opposite knee, and gently pull your thigh in.

For Disc Herniation

- **Bridge with Hold** (2 x 10): Lay on your back with your knees bent. Inhale, and then exhale while you activate your deep core and squeeze your buttocks to lift your hips off the ground. Hold 5-10 seconds. Slowly lower.
- **Standing Hip Extension** (2 x 12/leg): In standing, hold onto a chair or counter for balance. Keeping your toes pointed straight in front, lift your right leg straight back by

squeezing your glutes. Move slowly with intention, focusing on squeezing the muscles on the side of your hip. Lower down to the starting position. Repeat on the left

For Piriformis Tightness

- **Standing External Rotation with Band** (2 x 10/side): Standing with your weight on your left leg and a band above your knees, move your foot and lower leg away from your body while keeping toes pointed forward. The rotation should come from your hips.

Day 3 – Flexibility & Nerve Flossing

1. Sciatic Nerve Mobilization – 2 x 10/leg

- **Seated:** While sitting upright, you slowly extend one leg forward as you lift your head. Then, you bend the leg and drop your head down, repeating this coordinated movement rhythmically.
- **Supine:** Lying on your back, you gently bring your leg up with a bent knee, then straighten the knee slightly as you point your foot, coordinating with neck position as needed.

2. Child's Pose - 3 way – 3 x 30 sec/side

- Start on your hands and knees with a neutral spine. Move your knees out slightly wider than your hips while keeping your feet together. Slowly lower your buttock towards your feet until you feel a stretch. Hold. Repeat with your hands slightly to the right, feeling a stretch down your side. Repeat again to the left.
- Make sure when you inhale you feel your breath down into your belly and pelvic floor.

3. Kneeling Hip Flexor Stretch – 3 x 30 sec/side

- In kneeling, step one foot forward into a lunge, bring both hands inside foot. Lower hips to feel the stretch in the back leg. Switch legs and repeat.

4. Hamstring Stretch on Chair – 2 x 30 sec/leg

- Sit upright on a chair with, scoot near the edge. Straighten one leg out in front of you and rest the heel on the floor. Keep your knee straight but not locked, and toes pointing up to the ceiling. Hinge forward, avoiding rounding your spine.

5. Pelvic Tilts – 2 x 10

- While standing, tuck your pelvis back by activating your deep core, and then stick your butt out as your pelvis rotates forward.
- You can also do this laying or sitting on a therapy ball.
- Exhale as you tuck your pelvis back, inhale as you rotate forward.

For Disc Herniation

- **Prone Press-ups** (3x10): Lying face down, place your hands under your shoulders (like a push-up position) with your legs relaxed straight behind you. Gently press through your hands to lift your chest up, keeping your hips and pelvis on the floor. Hold 3-5 seconds.

- Only press high enough to a comfortable position, this should not cause sharp pain.

For Piriformis Tightness

- **Glute massage with ball or foam roller** (1-2 min/leg): Using a firm ball (lacrosse ball or similar) or a foam roller, sit on the floor with your knees bent and feet flat with it under your glute. Use your hands behind you for support and to adjust the pressure you use. Gently move your body forward/back and in a circle to roll over the muscle. If you find a sore spot, pause and hold for 10-15 sec. Repeat on the other side.

Day 4 – Core + Functional Strength

1. Bridge Marches – 2 x 10

- Lay on your back with your knees bent. Inhale, and then exhale while you activate your deep core and squeeze your buttcheeks to lift your hips off the ground. Once lifted, use your deep core to lift your right foot off the floor in a march, and slowly lower. Repeat on the left.

2. Side Plank (from knees or full) – 2 x 20 sec/side

- Lie on your side with legs stacked and feet flat on the floor. Rest your upper body on your forearm, keeping your elbow directly under your shoulder. Engage your core and glutes, drawing your belly button in and squeezing your glutes. Lift your hips off the floor, maintaining a straight line from head to heel. Hold. Repeat on the other side.

3. Chair Squats – 2 x 12

- Standing upright with your feet hip width apart, bend at your hips and knees like you are sitting down in a chair. Keep your weight back in your heels, with your chest up. Make sure you are using your deep core to stabilize.

4. Side-Lying Hip Abduction – 2 x 15

- Laying on your side with your top leg straight, slowly lift and lower your top leg while keeping your toes pointed straight. Do not let your leg rotate out. You should feel this in your side hip muscles.

5. Standing Calf Stretch – 2 x 30 sec/leg

- Stand facing the wall, with your toes pointing straight and hands on the wall. Step one foot back and keep your back knee straight, pressing your heel into the ground. Bend your front knee slightly and feel the stretch down your back leg. Switch legs.

For Disc Herniation

- **Hamstring Stretch** (3x30 sec): Sit upright on a chair with, scoot near the edge. Straighten one leg out in front of you and rest the heel on the floor. Keep your knee

straight but not locked, and toes pointing up to the ceiling. Hinge forward, avoiding rounding your spine.

- **Standing Hip Extension** (2 x 12/leg): In standing, hold onto a chair or counter for balance. Keeping your toes pointed straight in front, lift your right leg straight back by squeezing your glutes. Move slowly with intention, focusing on squeezing the muscles on the side of your hip. Lower down to the starting position. Repeat on the left

For Piriformis Tightness

- **Fire Hydrants** (2 x 10/leg): Start on your hands and knees with your deep core activated. Keeping your knee at 90 degrees, lift one leg out to the side without twisting your torso or shifting your weight. This effort should come from the side muscles of your hip. Lower back to the start and repeat. Then repeat on the opposite leg.
- **Seated Piriformis Stretch** (3x30 sec/leg): Sitting in a chair, bring your right ankle over your left thigh just above the knee (figure-4). Keep your back straight and lean forward from the hips, feeling a stretch in the right outer hip.