

# Sciatica

## What is Sciatica?

Sciatica (also known as sciatica neuralgia, neuralgia or lumbosacral radiculopathy) and is caused by any injury or trauma to the sciatic nerve and/or nerve root.

A nerve root is part of central nervous system, which separates off the spinal cord at different levels throughout the spine. In particular, any injury or damage to the lumbar nerve roots (L4-5, L5-S1, L3-4) can contribute towards sciatica.

Sciatica pain can spread from the buttocks down the back of the leg into the foot.<sup>1-3</sup>

## What causes Sciatica?

Sciatica is caused by numerous different conditions including (by not limited to):

- Disc Herniation

*Middle portion of the intervertebral disc pushes through causing irritation of spinal cord.*

- Lumbar Spinal Stenosis

*Narrowing of the spinal canal causing increased pressure of spinal cord.*

- Piriformis Syndrome

*Inflammation of the piriformis muscle (in buttocks region) causing irritation of the sciatic nerve.*

- Spondylothesis

*Spinal condition where the lumbar vertebrae slip forward onto the bone below.*

- Spinal Trauma

*Trauma, injury or damage to any part of the spinal cord*

- Pelvic Instability
- Compression or Injury to Sciatica Nerve
- Irritation of Nerve Roots<sup>1-3</sup>

## Signs & Symptoms

Sciatica is commonly reported as pain or parathesia (paralysis) from the buttock region, through the hamstrings, into the calf muscle and foot.

Individuals with Sciatica may experience any of the following:

- Pain – dull and/or sharp
- Burning/tingling sensations
- Numbness

Sciatica can further cause:

- Reduced trunk mobility and flexibility
- Reduced motion in the affected limb/side
- Slower walking speed
- Slower completion of functional activities<sup>1</sup>

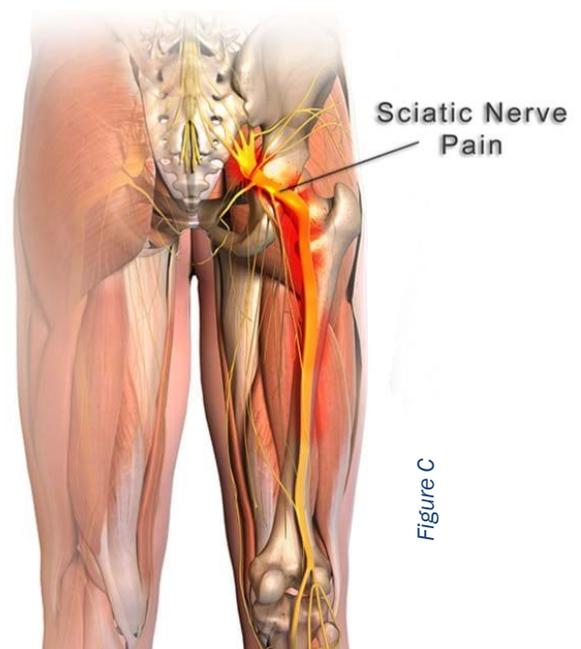


Figure C

## Diagnosis of Sciatica

Sciatica can be diagnosed a number of different way, depending on your symptoms and risk factors:

### Subjective History

- Mechanism of injury
- Pain – duration, severity

### Assessments:

- Slump Test
- Single Leg Raise (Laseque's) Test
- Height, Weight, BMI
- Balance, Gait, Posture

The aim of any assessment tests is to reproduce any sciatic pain.<sup>1-3</sup>

## What can you do?

In managing sciatica, the aim is to reduce any pain you may be experience. Sciatic pain can be reduced using any of the following methods:

- Exercise Management
  - Staying active and functional in activities of daily living
  - Improving flexibility and strength of lower limb joints
  - Correcting any changes in posture, gait, mobility or mechanics
- Education
  - Being physically active
  - Understanding the cause of your sciatica and suitable treatment
  - Exercising in pain-free motion
- Massage Therapy
  - Releasing tension in tight muscles
- Medications (Non-Steroidal Anti-Inflammatory Drugs)
  - *Always consult your GP before taking any new medication.*<sup>1,3</sup>

## Risk Factors for Sciatica

Non-Modifiable (Things you cannot change):

- Male Sex
- Middle/Older Age
- Height

Other:

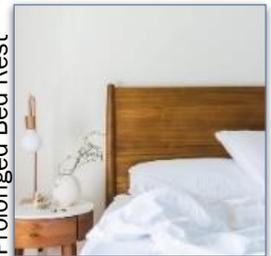
- Hip Fractures
- Hip Surgery <sup>1-4</sup>



Mental Stress



Occupational Factors



Prolonged Bed Rest



Overweight/Obesity



Smoking

## Modifiable Risk Factors for Sciatica