Sciatica
–Symptom or Condition?

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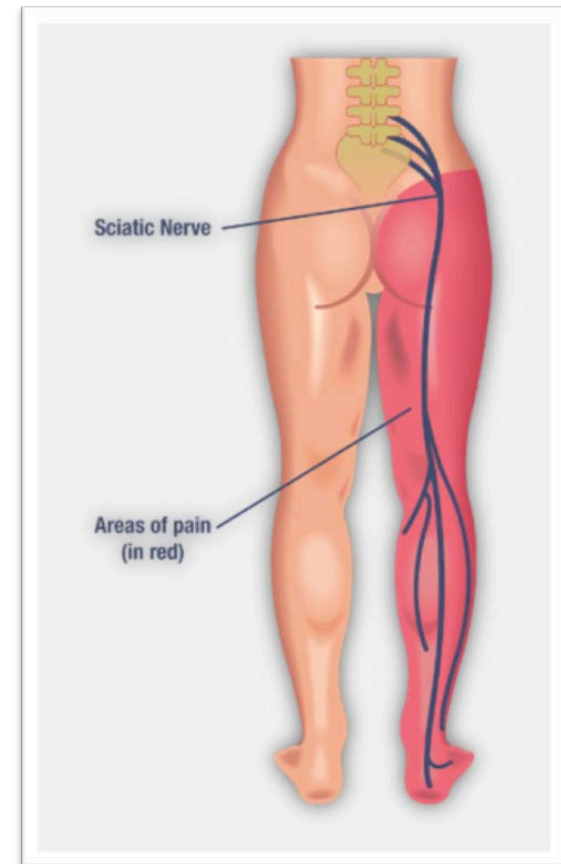
WE TEACH SPINE SAFE PILATES -DO YOU?

Aims

- What is Sciatica?

- The anatomy of the Sciatic Nerve

- What are the causes of Sciatica?

- What can we do about it?

- Red Flags, Contraindications and Precautions

What is Sciatica?

- Irritation of the Sciatic Nerve

- Pain, burning, tingling, numbness, weakness

   anywhere along it's path

Sciatic Nerve

Areas of pain
(in red)

Features of the Sciatic Nerve

- Longest and thickest nerve in the body

- 2 Nerves contained in a single sheath

- Tibial Nerve and Common Peroneal Nerve

Origins of the Sciatic Nerve
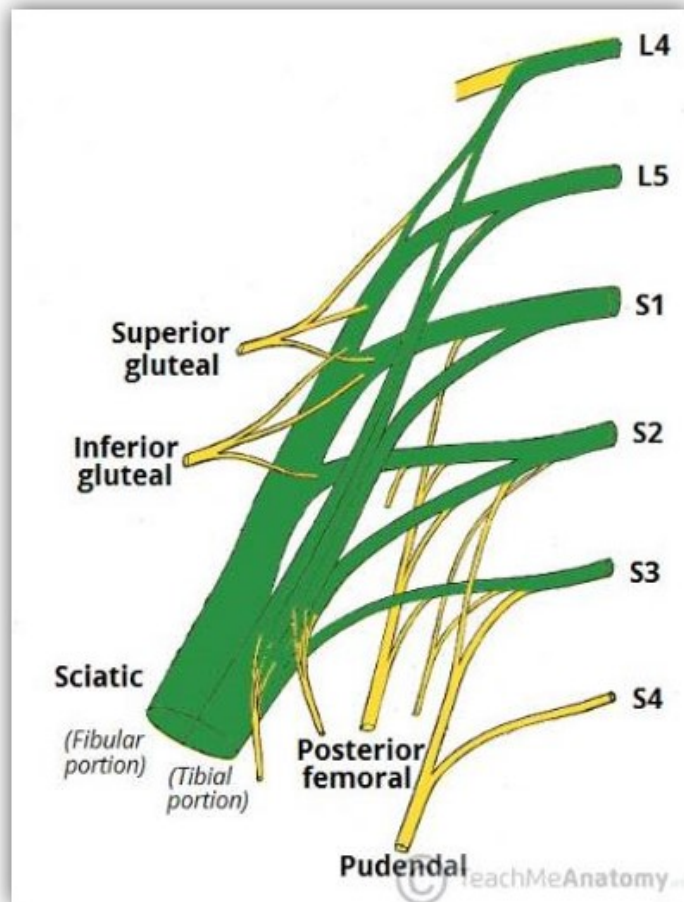
- Lumbo-Sacral Plexus L4-S3

- Greater Sciatic Foramen

- Close Association with Pudendal Nerve

Innervation

Tibial Nerve

- Long Head Biceps Femoris

- Semi Membranosus

- Semi Tendinosus

- Adductor Magnus

Peroneal Division

- Short Head Biceps Femoris

Innervation

Tibial Division

- Gastrocnemius

- Soleus

- Popliteus

- Flexor Digitorum Longus

- Flexor Hallucis Longis

- Posterior Tibialis

Peroneal Division

- Peroneus Longus, Brevis & Tertius

- Extensor Digitorum Longus

- Extensor Hallucis Longus

- Tibialis Anterior

Innervation

- Further division gives rise to the medial and lateral plantar nerves and the deep Peroneal Nerve

- Supply the intrinsic muscles of the foot

Causes of Sciatica

- Intervertebral Disc Bulge or Herniation

- Degenerative Disc Disease

- Facet Joint Degeneration

- Spondylosis

- Spinal Stenosis

- Spondylolisthesis

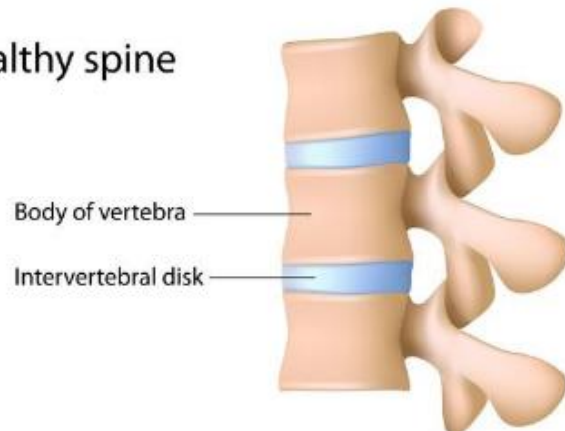- Piriformis Syndrome

- Altered neural tension
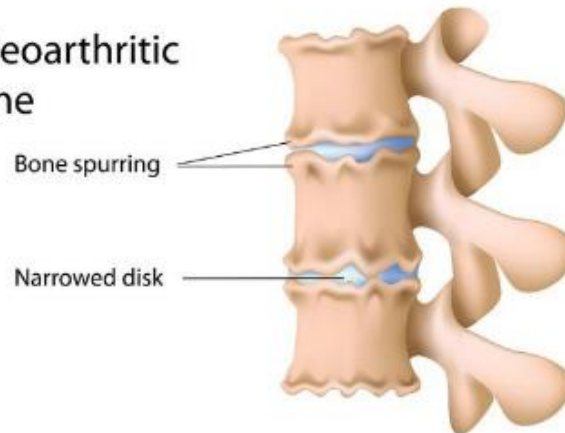
Intervertebral Disc Disorders

Normal

Degenerated

Bulging

Herniated

Thinning

Osteophyte
Formations and
Degeneration
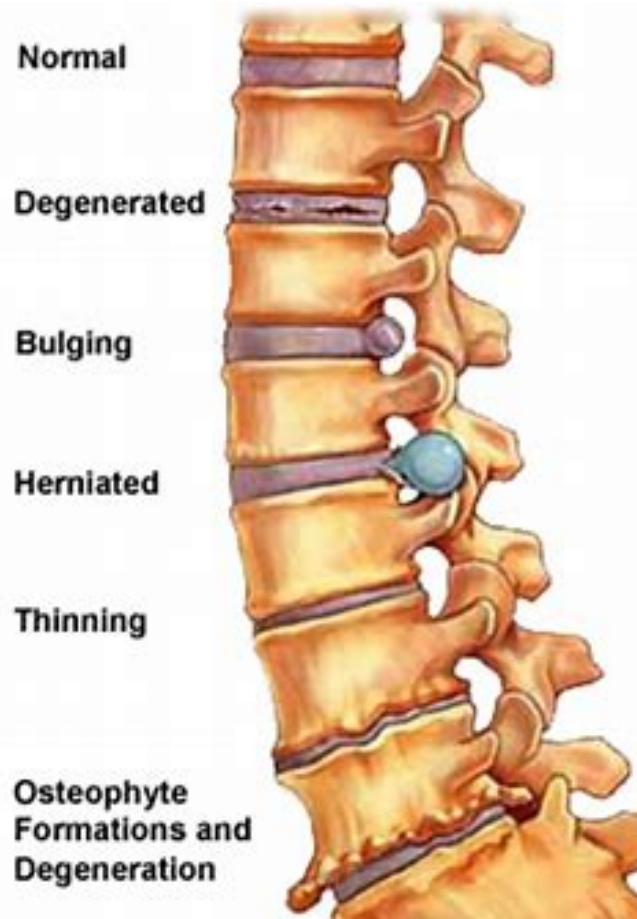
- Bulge

- Herniation

- Degeneration

- Thinning

Degenerative Change

Healthy spine

Body of vertebra

Intervertebral disk

Osteoarthritic spine

Bone spurring

Narrowed disk

- Facet Joint Syndrome

- Spondylosis

- Osteoarthritis

Spinal Stenosis

Narrowing of the Spinal Canal

- Scoliosis

- Calcified Ligaments

- Cartilage from arthritic joints
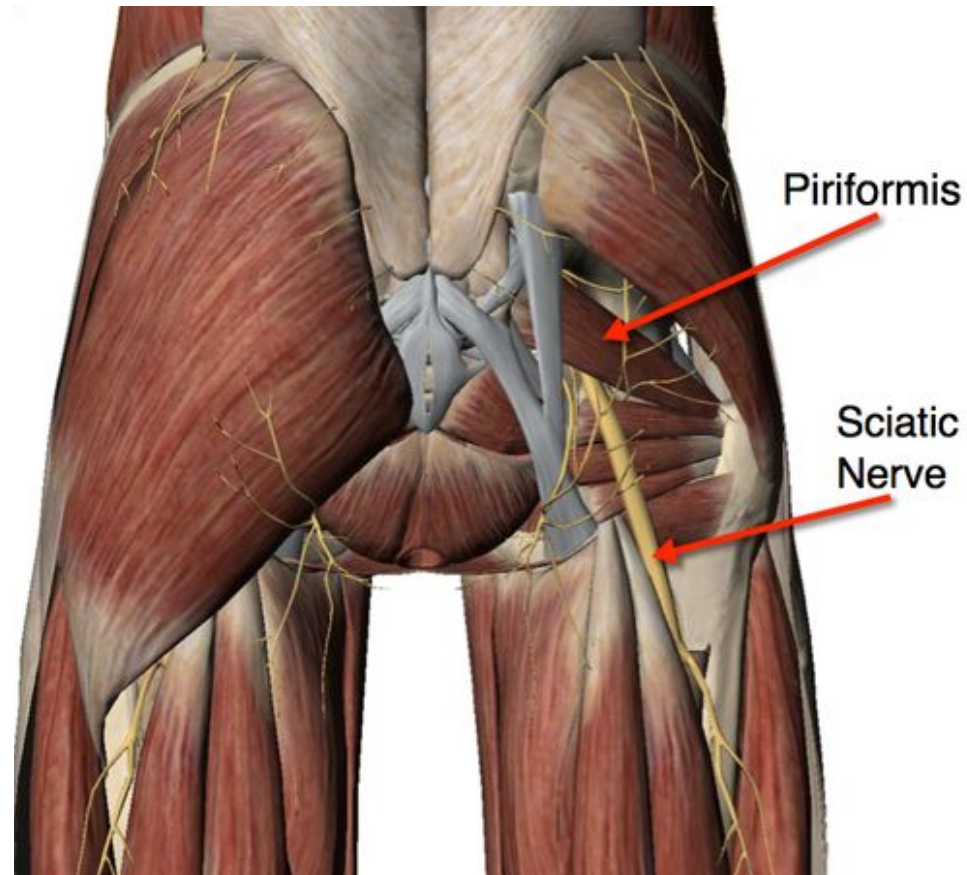
- Bone Spurs

- Spondylolisthesis

Lumbar Stenosis

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Spondylolisthesis

Vertebral Misalignment

• Usually L5 on S1

Spondylolisthesis

Break in bony ring of vertebra

Body of vertebra

Forward slippage

Side View of Low Backbone
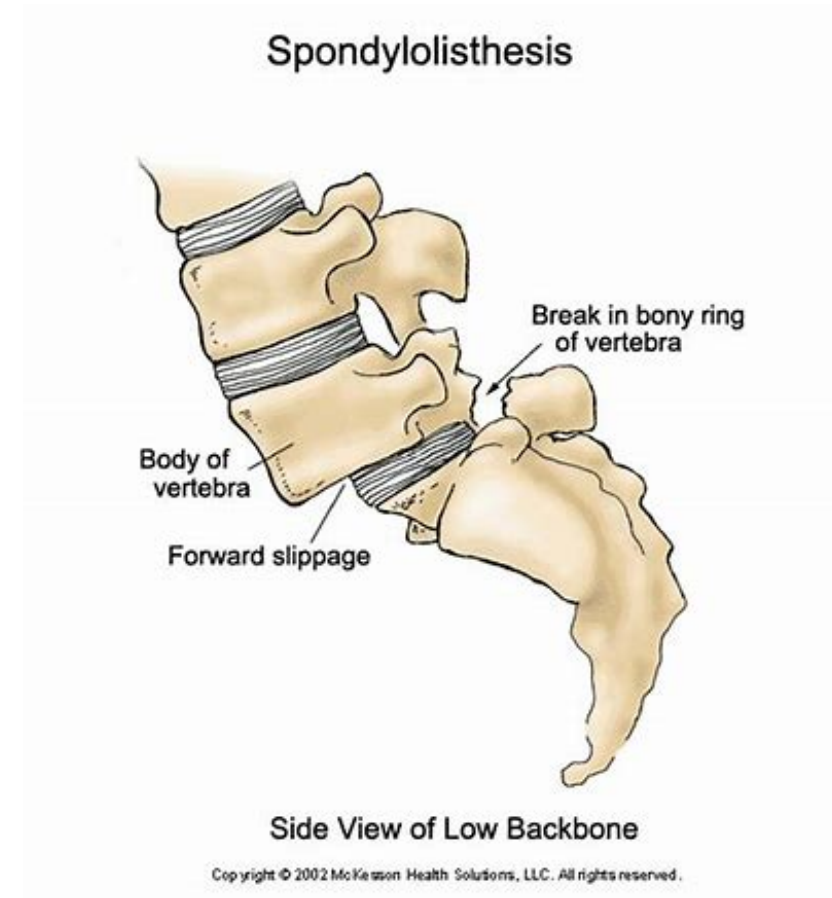
Piriformis Syndrome

Spasm of the Piriformis Muscle may have a variety of causes:

- Anatomical Variation
  - Leg length discrepancy
  - Rotation of Pelvis
  - Route of the Sciatic Nerve
- Pelvic Instability
  - SIJ Instability
  - Gluteal weakness
- Pelvic Floor Dysfunction
- Trauma

Adverse Neural Tension

- Nerve flossing to increase mobility of the nerve

What can you do to help?

- Restore spinal mobility within pain free range

- Improve Lumbopelvic Stability

- Re-educate functional movement patterns

- Strengthen lengthened, weak muscles

- Restore appropriate nerve tension
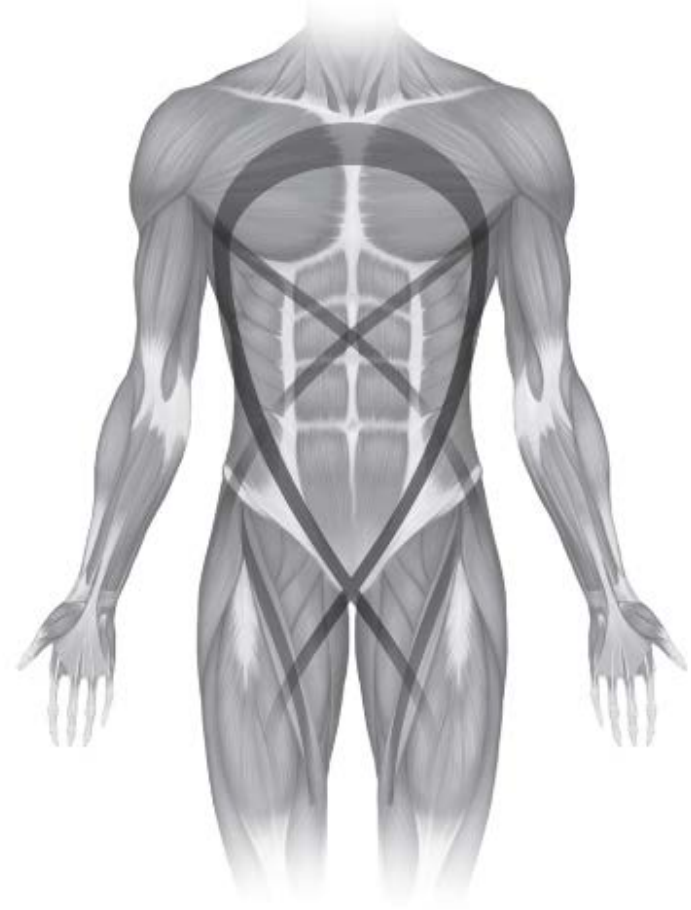
The Theory of Spinal Stability

- Active System
  – muscle, fascia, joints, ligaments
- Passive System
  – discs, bones
- Neuromuscular
  – functional movement, forward feed
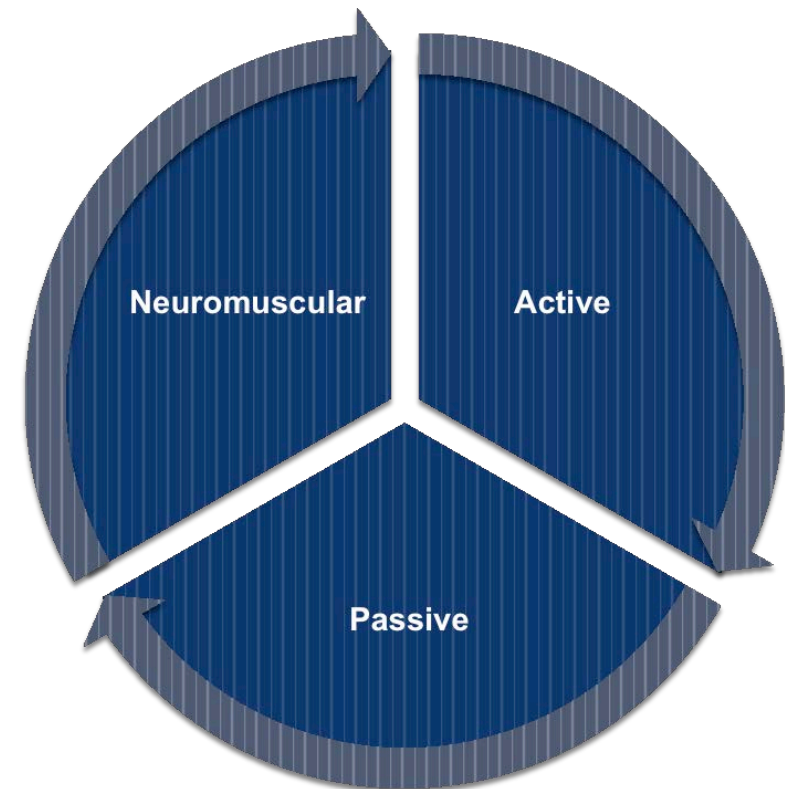
Myofascial Slings

• Primary

• Posterior oblique

• Anterior oblique

• Longitudinal

• Lateral

Red Flags

Cauda Equina is a medical emergency and requires immediate medical attention.

Symptoms are:

- Weakness in both legs

- Loss of continence or retention of urine

- Numbness or pins and needles in the saddle area

Other Red Flags

- Unremitting back pain particularly with a previous history of cancer

Contraindications

- Worsening unremitting back pain

- Foot drop or leg weakness

- Inability to perform normal activities

- An increase in pain in clients with Osteoporosis

- Recent trauma

- Infection

Precautions & Yellow Flags

- Unsupported forward flexion

- Worsening pain during or after exercise

- Psychosocial Factors

- Depression

- Disproportionate attitude to pain

Course Dates 2018

- **Edinburgh** 6/7/8 April 2018
  - April 6 (evening only), April 7 (start 11am)
- **Surrey** 21/22 April 2018
- **Glossop** 5/6 May 2018
- **Lowestoft** 15/16 September 2018
- **Lincoln** 22/23 September 2018
- **Taunton** 20/21 October 2018

SpineSafe Pilates is a prerequisite to the
Level 4 Pilates qualification should you wish to progress to this

20% DISCOUNT if booked this weekend only!