

Neurodynamic Solutions

Course Outlines

All courses on neurodynamics are based on Michael Shacklock's international best seller physical therapy text book, Clinical Neurodynamics, Elsevier, Oxford, 2005. They also internationally standardised and transferable to other countries.

General

Course Highlights - General

- 65:35 practical-theory
- strong hands-on and discussional elements
- many new manual techniques for the most significant neural problems seen in musculoskeletal practice
- systematic treatment progressions for radiculopathy (cervical and lumbar), shoulder, elbow and wrist, hip/piriformis, hamstrings and ankle and foot pain.

What You Learn

- understand how nerves move
- painless nerve root mobilisations
- how to exclude neurodynamic disorders
- differentiate between musculoskeletal and neurodynamic components - make a neurodynamic diagnosis
- technique progressions from low to high functional levels
- how to create, select and perform the best techniques for your patients - manual precision of neurodynamic technique
- how to detect contraindications for neurodynamic treatment

Course Objectives

Improve and develop:

- - manual skills, specifically the ability to feel abnormalities in movement related to the nervous system in the upper quarter
- - abilities in diagnosis and interpretation of neurodynamic testing and musculoskeletal relationships
- - clinician's repertoire of diagnosis and treatment of techniques safety in relation to neurodynamics
- - ability to diagnose functional disorders in neurodynamics

- - ability to select appropriate treatment for specific functional disorders in neurodynamics
- - ability to progress treatment from low to high functional levels
- - ability to detect contraindications to neurodynamic treatment and when to stop treatment for safety reasons.

NDS Upper Lower 1 Course

Highlights

General neurodynamic principles applied to the entire body and specifically the lower quarter, including the lumbar spine, hip and piriformis syndrome, hamstring injury and heel pain due to tibial and medial calcaneal nerve disorders.

Classifications of structures and mechanisms for diagnosis and treatment
neurodynamic sequencing - a mechanism that can be used to make neurodynamic technique more specific than in the past.

How to differentiate nerve from other tissues with mechanical testing. How to make diagnosis and treatment more specific than before. Concept of neurodynamics.

General neurodynamic principles applied to the entire body and specifically the lower quarter, including the lumbopelvic region, hip pain and piriformis syndrome, hamstring strain and neurodynamic aspect to heel pain.

Neurodynamic sequencing - a mechanism that can be used to make neurodynamic technique more specifically than in the past.

How to differentiate nerve from other tissues with mechanical testing.

Neurodynamic sequencing.

The method used to select and create progressions for patients.

Appropriate for patients with severe neural pain progressed to the athlete, performing artist and sports person.

Bilateral and contralateral neurodynamic testing.

Lower limb neurodynamic tests for lumbar nerve root and acute dural pain
progressional system to reduce force on lumbar nerve roots and progressively load them for more advanced patients.

Acute care model for the lumbar nerve root, including how to take tension off and reduce force in the lumbar nerve root.

Neuropathodynamics, expanding the boundaries and classifications of neurodynamic dysfunctions lumbar interface

NDS Lower Quarter 1 Course Programme

16 hours

DAY 1 - 8:30 am - 6.00 pm

8.30-10.30

Concept of neurodynamics - theory

- linking mechanics and physiology - convergence, sliding
- tensioning
- neurodynamic sequencing
- neurodynamic tests
- structural differentiation
- contralateral neurodynamic tests

10.30-11.00

Break

11.00-12.30

Nerve palpation - practical - sciatic nerve,

- tibial nerve
- fibular (peroneal) common, superficial and deep - sural superficial fibular (peroneal)
- tibial nerve at ankle

12.30-1.30

Lunch

1.30-3.00

Neurodynamic testing - theory/practical

- straight leg raise
- slump test
- tibial, peroneal and sural neurodynamic tests

3.00-3.20 Break

3.20-6.00

Diagnosis with neurodynamic tests - normal, abnormal, covert and overt responses

Planning physical examination and treatment - levels/types 0, 1, 2, 3a, b, c

DAY 2 - 8:30 am - 6.00 pm

8.30-10.00

Diagnostic categories and functional neurodynamic disorders - theory - interface, reduced closing, reduced opening

- neural tension dysfunction and its causes
- neural sliding dysfunction
- mechanisms of pathophysiology

10.00-10.30

Break

10.30-12.30

Method of treatment - theory

- treatment of pathophysiology
- treatment of pathomechanics
- progression system from neural protective to mobilisation strategies

12.30-1.30

Lunch

1.30-3.00

Treatment - practical

- low back pain and lumbar radiculopathy - opening and closing dysfunctions
- neural tension dysfunction
- caudal neural sliding dysfunction

3.00-3.20

Break

3.20-6.00

Treatment (cont) - practical

- piriformis syndrome/hip pain
- hamstring injury and sciatic nerve
- foot/heel pain/tarsal tunnel syndrome
- openers and closers, sliders and tensioners

Total contact time - 16 hours