

# Lower Quarter Course Information

## 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

- a 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
- how to take tension *off* the lumbar nerve root

### **Neuropathodynamics**

- expands the boundaries and classifications of neurodynamic dysfunctions
- lumbar interface, opening and closing dysfunctions
- lumbar neural tension and sliding dysfunctions
- 

### **Neurodynamic testing**

- straight leg raise, slump test, prone knee bend
- peroneal/fibular, tibial and sural neurodynamic tests
- sensitisation techniques for the neural tissues (level/type 3a)

### **Planning the physical examination**

- how *not* to provoke pain but still treat the neurodynamic component
- how to sensitize the examination and treatment for hidden neurodynamic problems, level 1, 2 and type 3a, 3b, 3c and 3d examinations

### **Diagnosis with neurodynamic tests**

- differentiating neural tissue from neuromusculoskeletal tissues
- establishing what is normal and abnormal
- what to do next

### **Method of treatment**

- system of technique progression
- hypersensitivity problems
- subtle and hidden neural component and sensitised treatments
- directing treatment at pathophysiology
- progression from pathophysiology to pathomechanics
- neurodynamics applied to lumbar disc and intervertebral foramen biomechanics

### **Treatment progressions**

- lumbar nerve root foraminal opening and closing dysfunctions
- lumbar neural tension dysfunction
- combined neural tension and reduced closing dysfunctions (level/type 3c)
- sciatic aspect to piriformis syndrome treatment combinations
- hamstring/posterior thigh pain
- tarsal tunnel syndrome and foot pain