Neurodynamic Assessment: cheat-sheet
Neurodynamic assessments evaluate the mechanosensitivity of neural structures. Like the biomechanics of joints and musculoskeletal structures, restrictions in neural mobility may contribute to symptoms. Neurodynamic tests utilise movement to systematically increase neural mechanosensitivity, often provoking a patient’s symptoms or causing pins and needles and numbness.

**Method**
Each test should be performed on the asymptomatic side first. The order of joint positioning **must be the same** each time the patient is assessed, as this can affect the level of neural mechanosensitivity. For example, if you move the shoulder, forearm, and wrist in that order, you must complete those same steps **in that order** upon re-assessment.

### Upper Limb Neurodynamic Tests

#### Upper Limb Tension Test 1 (ULTT1)
- **Median nerve bias**
- Shoulder girdle depression
- Shoulder abduction
- Shoulder external rotation
- Forearm supination
- Wrist and finger extension
- Elbow extension
- Sensitisers: contralateral cervical flexion

#### Upper Limb Tension Test 2A (ULTT2A)
- Median nerve bias
- Shoulder girdle depression
- Elbow extension
- Lateral rotation of whole arm
- Wrist, finger and thumb extension
- Abduction of shoulder
- Sensitisers: contralateral cervical flexion

#### Upper Limb Tension Test 2b (ULTT2B)
- Radial nerve bias
- Shoulder girdle depression
- Elbow extension
- Medial rotation of the whole arm
- Wrist, finger and thumb flexion
- Shoulder abduction
- Sensitisers: contralateral cervical flexion

#### Upper Limb Tension Test 3 (ULTT3)
- Ulnar nerve bias
- Shoulder girdle depression
- Shoulder abduction
- Shoulder external rotation
- Wrist and finger extension
- Elbow flexion
- Shoulder lateral rotation
- Shoulder abduction
- Sensitisers: contralateral cervical flexion

### Lower Limb Neurodynamic Tests

#### Slump Test
- **Posterior nerves**
- Patient sitting upright with feet dangling over the edge of the plinth with knees at ~90 degrees
  - 1. Hands resting behind back

### Positive Findings
A neurodynamic assessment is positive when:
- It reproduces the patient’s symptoms
- There are differences in symptoms/pain on either side of the body
- The test response can be altered by moving different body parts i.e. adding in sensitising movements
  - 2. Thoracic flexion “slump”
  - 3. Cervical flexion
  - 4. Extend one knee
  - 5. Dorsiflex foot of extended knee
- The steps can be performed in any order, with the sensitising movements (neck flexion and dorsiflexion) added/subtracted to increase/ease symptoms
- Make sure you perform steps in the same order each time with the same patient

#### Straight Leg Raise
- **Posterior nerves**
- Patient lying supine
- Medial hip rotation
- Hip flexion + knee extension
- Sensitisers: Ankle dorsiflexion/plantar flexion, hip adduction, neck flexion, trunk lateral flexion, hip medial rotation

#### Prone Knee Bend (Femoral Nerve Tension Test)
- **Anterior/femoral nerve bias**
- Patient in sidelying with symptomatic knee uppermost, holding bottom knee to chest, therapist extends hip and patient flexes neck
- Patient can also be in prone with symptomatic knee flexed, therapist extends hip
- Sensitisers: Hip medial or lateral rotation, hip abduction, hip adduction, neck flexion, ankle dorsiflexion or plantarflexion

#### Passive Neck Flexion Test
- **Posterior nerves**
- Patient lies supine
- Therapist passively flexes cervical spine
- Sensitisers: SLR, upper limb neurodynamic tests

### Important Consideration
These tests can be very provocative of symptoms, leaving patients in considerable pain. Take each test slowly and DO NOT push it further than the patient is comfortable with. Be prepared for your patient’s pain to potentially flare up immediately after the assessment.