



Neurological Conditions & Competency Descriptions

List of competencies was developed by members of the National Association for Clinical Education in Physiotherapy (NACEP)

**This list is currently under review by NACEP. The Director for Clinical Education will update accordingly as changes are made.*

Conditions

Adult: CNS
Stroke
Friedreich's ataxia
ARSACS Autosomal Recessive Spastic Ataxia of Charlevoix-Saguenay
Cerebellar dysfunction
Parkinson's disease
Multiple sclerosis
ALS
Brain injury
Brain tumor
Dementia
Adult: PNS
SCI paraplegic quadraplegic
Neuropathy (e.g. GBS, diabetic)
Syndrome post polio
Nerve lesion
Pédiatric
Myelodysplasia (spina-bifida)
Developmental delay (motor delay)
Brain injury
Brain tumor
Stroke
CP hemiplegia diplegia tetraplegia (quadraplegia) others
Neuromuscular diseases
SCI paraplegic quadraplegic



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Assessment Procedures and Tools

Observation
General condition / situation
Mental status
Posture
Locomotion assessment (walk and stairs) by:
Spatiotemporel parameters (speed, pace, step length walk speed on a certain distance o maximal distance in a certain time
OGA (observational gait analysis)
Video
Autonomy level in walking and demanding locomotion activities
Electro-assessment by:
Study of the clinical electromyographic report
Assessment of sensori-motor function by:
Fugl-Meyer test
Chedoke McMaster
Motor Assessment Scale (MAS)
Assessment of fonctionnal status (Barthel or FIM or else)
GMFM
FIM (child version)
Peabody
AIMS
MAI
TIME
Development scale (Carolina curriculum, Talbot battery)
Motor performance scale (Bruininks-Oseretsky)
Assessment of sensori-motor function by:
Balance scale (Berg)
Timed Up and Go
Assessment of deep and superficial sensitivity
Assessment of coordination /adiadochocinesia
Assessment of myotomes
Assessment of dermatomes
Assessment of reflex activity, postural reactions and adjustments
Osteotendinous reflexes (ordinal scale)
Babinski or other cutaneous reflexes
Postural reflexes
Clonus (ordinal scale)
Reactive postural reactions
Movement biomechanic analysis
Muscle tone
Ashworth scale
Pain assessment:
Numeric scale
Verbal scale
McGill questionnaire (short version)
Dolorimeter



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Interventions

Exercises

Stretching

- Active movement
- Passive movement

Active movement :

- Assisted exercise
- Free exercise
- coordination

Static balance

- External perturbation
 - Voluntary movement

Task training

Dynamic balance :

- transfer
- walk
- stairs
- incline, outdoors

Locomotion

Prelocomotion

Exercises program

Resisted movement

- manual (also patterned movement)
- weights, springs
- kinetron
- others

Transfers

Others

Électrotherapeutics

Electroanalgesia (TENS and others)

Electromyographic feedback (Cyborg, myotrac and others)

Neuromuscular electric stimulation (respond select, focus and others)

Deep thermotherapy (ultrasounds and others)

Rehabilitation

Brushing

Postural training

Prolonged stretching

Mental imagery

Kinetron

Abduction board

Inhibition positioning

Tendinous pressure

Feedback:

- postural
- Limb load monitor
- Strength transducer

Vibratory stimulation

treadmill

Verticalisation

Reality orientation

Classes

Other

Discharge planning

Home/placements/school visit

Provision of continuing therapy, as needed, ie. home care, OP, follow-up, home exercises