# OT PRACTICE DOCUMENT: NEUROLOGY

## WHAT IS NEUROLOGICAL REHABILITATION?

Neurological rehabilitation is a dynamic process where clinicians provide prevention, remediation, and compensatory interventions to support an individual living with a neurological condition (e.g., dementia, multiple sclerosis, Parkinson's disease) in maximizing their function. Functional recovery typically occurs through resolution of impairment and/or through compensation. Neurological rehabilitation aims to prevent complications, facilitate intrinsic recovery, teach adaptive approaches, and promote function in the individual's environment.

Neurological rehabilitation is rooted in the biopsychosocial model which proposes that to understand human function, disabilities, and abilities, biological, psychological and social factors should be considered.

## THE ROLE OF OCCUPATIONAL THERAPY IN NEUROLOGY

An occupational therapist in neurology has experience in neurological rehabilitation, which includes restoring function in individuals with conditions and disorders of the nervous system (e.g., brain injury, spinal cord injury, progressive condition). Neurological occupational therapy combines diverse knowledge, theoretical orientations, and frames of reference to improve the individual's function by assessing and addressing physical, cognitive, environmental, and social factors impacting the individual's function. Knowledge of the mechanisms of recovery and their impact on the rehabilitation process are used by occupational therapists working in this area of practice to support clients' recovery and quality of life[1].

The occupational therapist possesses expertise in assessing, synthesizing, and addressing complex components and variables associated with individuals experiencing neurological disorders. This skill set enables them to comprehend the impact of these factors on an individual's functionality and overall quality of life.

**The role of occupational therapist in neurology may include[1]:**

1. Identifying the presence of impairment vs. disability.
2. Assessing intrinsic (physiological state, neuro-behavior, and cognition), and extrinsic factors (social supports, cultural values, and environmental factors) to understand and address the impact of the neurological disorder on the person's function and quality of life.
3. Providing a clinical opinion regarding the individual's rehabilitation potential in context of their functional baseline, past medical history, current medical events, and other pertinent clinical information.
4. Consulting with the individual to obtain better understanding of their preferences and goals.
5. Joint decision making with the client on the rehabilitation approach; remediation vs. compensation vs. both. This information guides the care plan including goals formation and chosen modalities.
6. Providing or recommending appropriate wheelchair seating.
7. Providing cognitive rehabilitation.
8. Making or recommending environmental modifications.
9. Providing functional mobility rehabilitation in collaboration with physiotherapy.
10. Facilitating independence in feeding / eating / swallowing (often in collaboration with speech language pathology professionals).
11. Implementing interventions to address edema, range of motion, manage tone (including spasticity), and other components.
12. Promoting independence in activities of daily living (ADLs), instrumental activities of daily living (IADLs), productivity and leisure through different modalities including education, skills training, and a behavioural approach.
13. Using exercise and therapeutic activities to rehabilitate and address nervous system and musculoskeletal impairments in order to maximize function and progress rehabilitation.
14. Providing and/or recommending assistive devices and orthotics.
15. Optimizing positioning and comfort, while assessing for and minimizing the risk of pressure ulcer development.

16. Providing augmentative and alternative communication (often in collaboration with speech language pathology professionals).
17. Developing and /or implementing sensory stimulation interventions.

## REFERENCES

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All Occupational Therapy Practice Documents have been developed and reviewed in collaboration with diverse occupational therapists with lived experience and expertise in the respective areas of practice. For any feedback, contact practice@caot.ca.