

Box 1. Glossary and definitions.

Behavioral adaptation: occurs when the movement or task is executed with the impaired body part but an alternative atypical movement pattern is used. Behavioral adaptation results in deviating quality of movement compared to non-disabled individuals.^{a,b}

Behavioral compensation: occurs as adaptation, in which the impaired body part is used in an atypical way to accomplish a movement or a motor task; or as substitution, in which different atypical body part(s) or body segment(s) are used to accomplish a task.^{a,b}

Behavioral restitution: a return toward more normal patterns of motor control with the impaired body part(s) as seen in pre-stroke state.^{a,b}

International Classification of Functioning, Disability and Health (ICF) terminology^c

- Body functions: the physiological functions of body systems.
- Body structures: anatomical parts of the body such as organs, limbs and their components.
- Impairments: problems (the negative term) in body functions and structures.
- Activities: the execution of a task(s) or action(s).
- Activity limitations: difficulties (the negative term) in executing tasks and activities.
- Activity capacity: relates to what an individual can do in a “standardized” environment.
- Activity performance: what the person actually does in his or her “current” (usual) environment.
- Participation: involvement in a life situation.
- Participation restriction: problems (the negative term) an individual may experience in involvement in life situations.
- Functioning: an umbrella term for body function, body structures, activities and participation. It denotes the positive or neutral aspects of the interaction between a person's health condition(s) and that individual's contextual factors (environmental and personal factors).
- Disability: an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between a person's health condition(s) and that individual's contextual factors (environmental and personal factors).

Motor control: the process whereby the central nervous system produces purposeful coordinated movements to interact with the rest of the body and the environment.^d

Motor function: body functions related to muscle force and endurance, control over and coordination of voluntary movements, and movement patterns associated with walking, running or other whole body movements.^c

Motor learning: the changes, associated with practice or experience, in internal processes, that determine a person's capability for producing a motor skill.^e

Motor recovery: the extent to which motor functions and activities have returned to their pre-stroke state.^a

Motor skill: a skill for which the primary determinant of success is the quality of movement that the performer produces.^e

Motor skill acquisition: the processes by which an individual acquires the ability to identify an appropriate movement goal given a particular task context, select the correct action given a sensory stimulus and/or the current state of the body and the world, and execute that action with accuracy and precision.^f

Multidisciplinary rehabilitation: defined by the World Health Organization (WHO) as the coordinated delivery of multidimensional rehabilitation intervention provided by two or more disciplines (such as nursing, physiotherapy, occupational therapy, social work, psychology and other allied health), in conjunction with medical professionals (rehabilitation physician, neurologist; oncologist; palliative physician), which aims to improve patient symptoms and maximize functional independence and participation (social integration) using a holistic biopsychosocial model, as defined by the ICF.^c

Neural plasticity: structural or functional changes (or both) within neurons that affect the connectivity of neurons with each other in a network serving a function. These changes are usually in response to a change in neuronal input or firing patterns induced by this input, such as during learning (use- and experience-dependent) or after injury.^g

Phases of stroke recovery:^a

- Hyperacute from 0 to 24 h post stroke onset
- Acute between 1 and 7 days
- Early subacute between 7 days and 3 months
- Late subacute between 3 and 6 months
- Chronic phase beyond 6 months post stroke

Spontaneous neurological recovery: improvement in function and activities that is independent of specific targeted treatment and occurs within a restricted time-window of the first 3 months after stroke onset. It is considered an endogenous repair process that presumably relies on residual intact neural architecture as a template for reorganization.^{g,h}

Quality of movement (QoM): operationally defined by comparing an individual's motor task execution to a reference population of non-disabled age-matched individuals. The closer the movement matches to those seen in non-disabled individuals, the better the quality of their movement.ⁱ

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