

## Editor's choice

# Current concepts on assessment of spasticity

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Assessing spasticity is an ongoing area of research interest, as it is important for both the diagnosis and prognosis of diseases and disorders. Physical and functional measures have been identified to report the status and progress of individuals with spasticity. This involves identifying overactive muscles or muscle groups and determining the effect of spasticity on various aspects of patient function, including mobility and activities of daily living (ADLs). Spasticity is commonly observed after conditions such as stroke, multiple sclerosis, spinal cord injury, traumatic brain injury (TBI), and lesions of the central nervous system (CNS).

The diagnosis of spasticity is based on a combination of physical signs, such as exaggerated tendon reflexes and muscle hypertonia, defined as velocity-dependent resistance of a muscle to stretching. Evaluation of spasticity should be based on clinical assessment, with additional biomechanical or electrophysiological measurements obtained during active and functional movements as adjunctive techniques. There are numerous clinical scales/questionnaires used to evaluate spasticity, including the Ashworth scale, modified Ashworth scale, spasm severity scale, clonus score, tone assessment scale, disability assessment scale, Barthel index (BI), multiple sclerosis spasticity scale, functional independence measure (FIM), and Fugl-Meyer Assessment (FMA). The FMA is a scale that evaluates spasticity using parameters such as sense, touch, pain, joint position, sense of hand, wrists, and body structure.

In the last decade, several advanced ways of diagnosing spasticity have been established, such as electromyography and myotonometry, which allow for impartial assessment by quantifying tissue development response.

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