

Assessment of Hypertonicity

Tardieu Scale

This scale quantifies muscle spasticity by assessing the response of the muscle to stretch applied at specified velocities.

Grading is always performed at the same time of day, in a constant position of the body for a given limb. For each muscle group, reaction to stretch is rated at a specified stretch velocity with 2 parameters x and y.

Velocity to Stretch (V)	Quality of Muscle Reaction (X)
V1 As slow as possible (PROM available)	0 No resistance throughout passive movement
V2 Speed of the limb segment falling (to rate spasticity)	1 Slight resistance throughout, with no clear catch at a precise angle
V3 As fast as possible (> natural drop) (to rate spasticity)	2 Clear catch at a precise angle, followed by a release
	3 Fatigable clonus (<10secs) occurring at a precise angle
	4. Unfatigable clonus (>10secs) occurring at a precise angle
	5. Joint Immobile
Spasticity Angle	
R1: Angle of catch at V2 or V3	R2: Full PROM achieved at V1

Modified Ashworth Scale

0	No increase in muscle tone
1	Slight increase in muscle tone, manifested by a catch and release or by minimal resistance at the end of the range of motion when the affected part(s) is moved in flexion or extension
1+	Slight increase in muscle tone, manifested by a catch, followed by minimal resistance throughout the remainder (less than half) of the ROM
2	More marked increase in muscle tone through most of the ROM, but affected part(s) easily moved
3	Considerable increase in muscle tone, passive movement difficult
4	Affected part(s) rigid in flexion or extension