

Assessment of sensorimotor function

E. LOWER EXTREMITY					
I. Reflex Activity, supine position			none	can be elicited	
Flexors: knee flexors			0	2	
Extensors: patellar, achilles (at least one)			0	2	
Subtotal I (max 4)					
II. Volitional movement within synergies, supine position			none	partial	full
Flexor synergy: Maximal hip flexion (abduction/external rotation), maximal flexion in knee and ankle joint (palpate distal tendons to ensure active knee flexion). Extensor synergy: From flexor synergy to the hip extension/adduction, knee extension and ankle plantar flexion. Resistance is applied to ensure active movement, evaluate both movement and strength (compare with the unaffected side)	Hip	flexion	0	1	2
	Knee	flexion	0	1	2
	Ankle	dorsiflexion	0	1	2
	Hip	extension	0	1	2
	Knee	abduction	0	1	2
	Ankle	extension	0	1	2
		plantar flexion	0	1	2
Subtotal II (max 14)					
III. Volitional movement mixing synergies, sitting position, knee 10 cm from the edge of the chair/bed			none	partial	full
Knee flexion from actively or passively extended knee	no active motion less than 90° active flexion, palpate tendons of hamstrings more than 90° active flexion		0	1	2
Ankle dorsiflexion compare with unaffected side	no active motion limited dorsiflexion complete dorsiflexion		0	1	2
Subtotal III (max 4)					
IV. Volitional movement little or no synergy, standing position, hip at 0°			none	partial	full
Knee flexion to 90° hip at 0°, balance support is allowed	no active motion or immediate, simultaneous hip flexion less than 90° knee flexion and/or hip flexion during movement at least 90° knee flexion without simultaneous hip flexion		0	1	2
Ankle dorsiflexion compare with unaffected side	no active motion limited dorsiflexion complete dorsiflexion		0	1	2
Subtotal IV (max 4)					
V. Normal reflex activity, supine position, assessed only if full score of 4 points is achieved in part IV, compare with the unaffected side			hyper	lively	normal
Reflex activity knee flexors, patellar, achilles	2 of 3 reflexes markedly hyperactive 1 reflex markedly hyperactive or at least 2 reflexes lively maximum of 1 reflex lively, none hyperactive		0	1	2
Subtotal V (max 2)					
Total E (max 28)					
F. CO-ORDINATION/SPEED, supine, after one trial with both legs, eyes closed, heel to knee cap of the opposite leg, 5 times as fast as possible			marked	slight	none
Tremor			0	1	2
Dysmetria	pronounced or unsystematic slight and systematic no dysmetria		0	1	2
			≥ 6s	2-5s	< 2s
Time	6 or more seconds slower than unaffected side 2-5 seconds slower than unaffected side less than 2 seconds difference		0	1	2
Total F (max 6)					

H. SENSATION, lower extremity eyes closed, compared with the unaffected side		anesthesia	hypoesthesia or dysesthesia	normal
Light touch	leg foot sole	0 0	1 1	2 2
		less than 3/4 correct or absence	3/4 correct or considerable difference	correct 100%, little or no difference
		≥ 6s	2-5s	< 2s
Position small alterations in the position	hip knee ankle great toe (IP-joint)	0 0 0 0	1 1 1 1	2 2 2 2
Total H (max 12)				

I. PASSIVE JOINT MOTION, lower extremity sitting position, compare with the unaffected side				J. JOINT PAIN, lower extremity during passive motion, lower extremity		
	only a few degrees (< 10° hip)	decreased	normal	pronounced pain during movement or very marked pain at the end of movement	some pain	no pain
Hip						
Flexion	0	1	2	0	1	2
Abduction	0	1	2	0	1	2
External rotation	0	1	2	0	1	2
Internal rotation	0	1	2	0	1	2
Knee						
Flexion	0	1	2	0	1	2
Extension	0	1	2	0	1	2
Ankle						
Dorsiflexion	0	1	2	0	1	2
Plantar flexion	0	1	2	0	1	2
Foot						
Pronation	0	1	2	0	1	2
Supination	0	1	2	0	1	2
Total (max 20)			Total (max 20)			

E. LOWER EXTREMITY	/28
F. COORDINATION / SPEED	/6
TOTAL E-F (motor function)	/34

H. SENSATION	/12
I. PASSIVE JOINT MOTION	/20
J. JOINT PAIN	/20