



Neurological Student Checklist

Composed of Five Components:

1. Level of Consciousness (LOC) & Mental Status
2. Cranial Nerve Function
3. Motor system
4. Sensory System
5. Reflexes

MENTAL STATUS	
Assessment	Assessment Technique/Indicators
Appearance & Behavior	<ul style="list-style-type: none"> • Level of consciousness • Posture & motor behavior • Dress/grooming/hygiene • Manner/affect/facial expression • Relationship to people and things
Speech & Language	<ul style="list-style-type: none"> • Quantity • Rate • Loudness • Articulation • Fluency
Mood	<ul style="list-style-type: none"> • Describes (sad, happy, content, euphoric, angry, anxious, detached, indifferent)
Thought & Perception	<ul style="list-style-type: none"> • Thought processes • Thought content • Perceptions • Insight/Judgment
Cognitive functions	<ul style="list-style-type: none"> • Orientation • Attention span • Remote memory • Recent memory • New learning ability
Higher cognitive functions use, when required to assess cognition ranging from mild deficits to advanced dementia	<ul style="list-style-type: none"> • Information and vocabulary • abstract thinking • calculating (math problems) or constructional abilities (copying or drawing 2-3 dimensional figures)

CRANIAL NERVES	
Assessment	Assessment Technique/Indicators
CN I – Olfactory	<ul style="list-style-type: none"> Assesses sense of smell bilaterally
CN II – Optic <ul style="list-style-type: none"> Visual Acuity: Far Vision Visual Acuity: Near Vision Visual Fields by Confrontation Inspect Optic fundi 	<ul style="list-style-type: none"> Snellen chart results Acuity at 35 cm Screening of fields Red reflex bilaterally Appearance of retina, vessels, optic disc, macula, and fovea
CN II & III – Optic & Oculomotor <ul style="list-style-type: none"> Pupils 	States: <ul style="list-style-type: none"> Size in mm Shape Equality/symmetry Direct reaction to light (pupil being assessed) Consensual reaction to light (pupil reaction in the not being directly assessed) Near reaction (pupil constriction when shifting gaze from far to near)
CN III, IV & VI – Oculomotor, Trochlear & Abducens <ul style="list-style-type: none"> Extraocular movements Convergence Palpebral fissures 	<ul style="list-style-type: none"> Conjugate movements in all directions Convergence Presence of ptosis
CNV-Trigeminal <ul style="list-style-type: none"> Motor <ul style="list-style-type: none"> Clenching of jaw Moving jaw side to side Sensory (bilateral exam, patient eyes closed) <ul style="list-style-type: none"> Pain sensation Light touch 	Motor: <ul style="list-style-type: none"> Temporal and masseter muscles movement and strength Ability to move jaw side to side Sensory <ul style="list-style-type: none"> Assesses pain sensation Assesses sensation of light touch
CN VII – Facial <ul style="list-style-type: none"> Motor 	Symmetry /movement: <ul style="list-style-type: none"> Raise eyebrows Tightly closes eyes Frowns/smiles Shows teeth Puffs out cheeks
CN VIII – Acoustic <ul style="list-style-type: none"> Whisper test 	<ul style="list-style-type: none"> Hearing equal bilaterally
CN IX and X – Glossopharyngeal and Vagus <ul style="list-style-type: none"> Motor 	<ul style="list-style-type: none"> Voice quality Symmetric rise in soft palate Uvula midline Gag reflex
CN XI – Spinal Accessory	<ul style="list-style-type: none"> Shrugs shoulders against resistance noting muscle strength and symmetry of both shoulders Moves head side to side against resistance noting muscle strength and symmetry of both sides of the face
CN XII - Hypoglossal	<ul style="list-style-type: none"> Assesses clear articulation (“light/tight/dynamite”) Assesses ability and symmetry of tongue protrusion Symmetric ability to move tongue side to side

MOTOR SYSTEM FUNCTION: FOUR COMPONENTS

1. Involuntary movements
2. Body position
3. Muscle bulk, tone & strength
4. Coordination

Assessment	Assessment Technique/Indicators
Involuntary Movements	<ul style="list-style-type: none"> • Assess presence/absence
Body Position	<ul style="list-style-type: none"> • Assess and describe body position during rest and movement
Muscle Bulk	<ul style="list-style-type: none"> • Note Size/contour, presence of atrophy
Muscle Tone and Strength	<ul style="list-style-type: none"> • Elbow flexion/extension • Wrist extension • Handgrips • Finger abduction • Thumb opposition <p>Trunk</p> <ul style="list-style-type: none"> • flexion/extension/lateral bending <p>Hip</p> <ul style="list-style-type: none"> • flexion/extension/adduction/ abduction <p>Knee</p> <ul style="list-style-type: none"> • extension/flexion <p>Ankle</p> <ul style="list-style-type: none"> • plantar & dorsiflexion
Coordination <ul style="list-style-type: none"> • Requires integration of motor, cerebellar, vestibular, & sensory systems 	<ul style="list-style-type: none"> • Rapid alternating hand movements note speed, smoothness, compare bilaterally • Point-to-point movements – finger to nose (with eyes closed then open) • Heel to shin • Romberg test – position sense • Pronator Drift • Gait, balance & posture: <ul style="list-style-type: none"> ○ walk across room ○ walk heel-to-toe ○ walk on heels then on toes ○ shallow knee bend on each leg

SENSORY SYSTEM FUNCTION: Includes Spinothalamic tracts and posterior columns

1. Pain & Temperature - spinothalamic tracts
2. Vibration & Proprioception (joint position sense) – posterior columns
3. Light touch - both spinothalamic and posterior columns)

Assessment	Assessment Technique/Indicators
Client preparation	<ul style="list-style-type: none"> • Instructs client to close eyes as necessary
Spinothalamic tract <ul style="list-style-type: none"> • Pain • Temperature (can be omitted if pain sensation intact) 	<ul style="list-style-type: none"> • Assess sharp and dull (or warm and cold) • Compare distal with proximal • Compares symmetric areas on two sides of the body
Posterior columns <ul style="list-style-type: none"> • Vibration • Position sense 	<ul style="list-style-type: none"> • Compares symmetric areas on both sides of body • Uses 128 Hz tuning fork <ul style="list-style-type: none"> ○ Place vibrating tuning fork on distal interphalangeal joints of finger and toe • Hold the joint of the finger and toe with the thumb and index finger and move up or down <ul style="list-style-type: none"> ○ Patient (eyes closed) distinguishes movement as up or down
Both pathways <ul style="list-style-type: none"> • Light touch 	<ul style="list-style-type: none"> • Assess light touch with a wisp of cotton • Compare distal with proximal • Compare symmetric areas on both sides of body

DEEP TENDON REFLEXES

Assessment	Assessment Technique/Indicators
Percuss and grade <ul style="list-style-type: none"> • Bilateral comparison 	Notes symmetry and grades response <ul style="list-style-type: none"> • Bicep (C 5, 6) • Brachioradialis (C5, 6) • Triceps (C 6, 7, 8) • Knee (L 2, 3) • Achilles (S1, 2) • Plantar response (S 1, 2) • Abdominal (superficial umbilicus reflex)