## FINDINGS LOCATED AT ORGANIZATION OF NEUROLOGIC ASSESSMENT & FINDINGS

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<th>FINDINGS</th>
<th>LOCATION OF NEUROLOGIC DISEASE</th>
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<td><strong>MENTATION ASSESSMENT</strong></td>
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| Mental Status | • Brainstem (see also decerebrate posture)  
• Central vestibular system  
• Prosencephalon |
| **POSTURE ASSESSMENT** | |
| Decerebellate Posture | • Cerebellum (normal mental status, opisthotonus, increased extensor tone in thoracic limbs, flexed pelvic limbs with reduced muscle tone) |
| Decerebrate Posture | • Midbrain or pons (severely affected mentation, increased extensor tone in all limbs, opisthotonus if cerebellar lesion present) |
| Schiff-Sherrington Posture | • T3–L4 spinal cord segments (increased tone in thoracic limbs; normal to reduced tone and paralysis of pelvic limbs) |
| **GAIT ASSESSMENT** | |
| Ataxia | • Cerebellum: Symmetric, truncal (bouncy gait/good muscle tone)  
• Proprioceptive pathways: Mild, usually bilateral  
• Vestibular system: Asymmetric, moderate |
| Circling | • Prosencephalon: Circles larger  
• Vestibular system: Circles smaller  
• Direction of circling is usually toward side with lesion |
| Paresis | • Brainstem: Paresis and ataxia ipsilateral to lesion  
• Cauda equina: Paraparesis  
• Cerebrum: Mild, almost unnoticeable paresis  
• Cervical myelopathy (C1–C5 or C6–T2): Tetraparesis  
• Neuromuscular system: Various grade of para- or tetraparesis (also muscular weakness, exercise intolerance)  
• Thoracolumbar myelopathy (T3–L3 or L4–S3): Paraparesis |
| **CRANIAL NERVE ASSESSMENT** | |
| Cranial Nerve Abnormalities | • Brainstem: Localized to part of brainstem where nucleus is located  
• Central vestibular system  
• Peripheral nervous system: May affect one nerve or be part of a polyneuropathy |
| **POSTURAL REACTION ASSESSMENT** | |
| Postural Reaction Deficits | • Brainstem: Ipsilateral to lesion  
• Cauda equina: Pelvic limbs  
• Central vestibular system: Ipsilateral to lesion  
• Cerebrum/thalamus: Contralateral to lesion  
• C1–C5 or C6–T2 spinal cord segments: All limbs (pelvic limbs may be more affected than thoracic limbs)  
• T3–L3 or L4–S3 spinal cord segments: Pelvic limbs  
• Neuromuscular disease: Postural reaction deficits may be present |
| **SPINAL NERVE ASSESSMENT** | |
| Spinal Reflexes | • Cauda equina: Reduced reflexes to pelvic limbs, anus, and urinary sphincter may be present  
• C1–C5 or T3–L3 spinal cord segment: Normal to increased reflexes (upper motor neuron signs)  
• C6–T2 or L4–S3 spinal cord segment: Reduced reflexes (lower motor neuron signs); reduced muscle tone  
• Neuromuscular system: Reduced reflexes may be present in either thoracic or pelvic limbs |
| **PAIN ASSESSMENT** | |
| Pain on Spinal Palpation | • Brain: Pain on cervical flexion may sometimes be found  
• Cauda equina: Pain on palpation of the lumbosacral area  
• Neuromuscular: Muscle pain in some myopathies  
• Spinal cord: Pain on palpation of affected area may or may not be present |
| **OTHER ASSESSMENTS** | |
| Hemineglect | • Cerebrum: Reduced reaction to stimulus contralateral side to lesion |
| Seizures | • Prosencephalon: Neurologic examination may be normal |
| Vestibular Signs | • Central vestibular system: Brainstem or cerebellar lesion  
• Peripheral vestibular system: Inner ear lesion |