

Pet:	
Owner:	
Referring Vet:	Appointment Date:



NEUROLOGIC EXAM	Lesion Localization
General	

Temp: _____	Diencephalon
Heart Rate: _____ Resp Rate: _____ BP: _____ BCS: 1 2 3 4 5	

KEY 0=not present 1=suppressed 2= normal 3= exaggerated 4 = extremely exaggerated, clonus
R= right L=left RF=right front RR=right rear LF=left front LR=left rear
RT=right temporal RMax=right maxillary RMan=right mandibular
LT=left temporal LMax=left maxillary LMan=left mandibular
OD= right eye OS=left eye OU=both eyes AD=right ear AS=left ear AU=both ears

History	Lesion Localization
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Seizures	Yes No	Description: Onset: Progression: Duration: Frequency: Medications: Drug Monitoring:	Forebrain Systemic Disease
	Partial General Psychomotor		
Behavior	Normal Wandering Vocalizing Stuck in Corners Inappropriate Elimination		Cerebrum
	Appetite	Normal Increased Decreased	Diencephalon
	Water Intake	Normal Increased Decreased	Diencephalon
Tremor	Intention tremor – gets worse at the end of goal-oriented movement (e.g., bobble-head when approaching food)	Yes No	Cerebellum
	Myoclonus – brief, shock-like muscle contraction, jerking a body part	General Local:	Demyelination, Seizure disorder
	Myotonia – delayed muscle relaxation after voluntary movement	Delayed relaxation Muscle dimpling Lateral rigidity	Myopathy
	Postural Tremor – as limb or head supported against gravity	Head Trunk Tail RF LF RR LR	Weakness, systemic disease
Hearing	Startles easily very deep sleep failure to respond to commands		Brainstem, ears
Vision	Bumps into things: in full light in low light		Forebrain, CN2, eye
Dysphagia	Regurgitation Trouble Swallowing Voice Change Inspiratory Stridor		Brainstem
Breathing	Normal Abdominal with Chest Excursions Abdominal		Cervical SC

Comments:

Neurologic Exam – p.2						
Mental Status and Behavior			Lesion Localization			
Level of Consciousness	0 – coma 1 – depressed, stupor 2 – normal 3 – excited 4 – agitated, aggressive			Brain Stem > Forebrain		
Quality of Consciousness	Normal Comments: Dementia			Forebrain		
Eye & Ear Exam				Lesion Localization		
Iris/Pupil	Hippus (pupils alternating in size) Hemidilation (D shape)			FeLV infection, active forebrain edema		
	Miosis R Miosis L Mydriasis R Mydriasis L Anisocoria (R L smaller)			Forebrain, brain stem		
	Iris Atrophy Iris Coloboma Iris mass			Will slow PLR		
	Pupillary Light Response	Direct	OD: 0 1 2 OS: 0 1 2		Forebrain, brainstem, coma	
Consensual		OD: 0 1 2 OS: 0 1 2				
Horner's Syndrome	R ptosis R enophthalmos R miosis R nictitans prolapse		L ptosis L enophthalmos L miosis L nictitans prolapse		Brainstem, Neck, T1-T3 SC, Thorax, Ear	
Nystagmus	Physiologic Nystagmus			Normal – OD OS OU Siamese Abnormal:		
	Spontaneous Nystagmus	Horizontal		Fast phase R: OD OS OU Fast phase L: OD OS OU		inner ear, middle ear, CN8 > brainstem
		Vertical		Fast phase up: OD OS OU Fast phase down: OD OS OU		
		Rotary		OD OS OU		
Positional Nystagmus	Horizontal Vertical Rotary			Brainstem		
Vision	Tracking – full light		OD 0 1 2 OS 0 1 2		Forebrain	
	Tracking – low light		OD 0 1 2 OS 0 1 2			
	Obstacles – full light		OD 0 1 2 OS 0 1 2			
	Obstacles – low light		OD 0 1 2 OS 0 1 2			
Menace Response	Nasal OD: 0 1 2 3 4 lateral OD: 0 1 2 3 4 Nasal OS: 0 1 2 3 4 lateral OS: 0 1 2 3 4			Forebrain, brainstem, Cerebellum, < 12 weeks of age		
Dazzle	OD 0 1 2 3 4 OS 0 1 2 3 4			CN 2, brainstem		
Cornea	Corneal Reflex	OD 0 1 2 3 4 OS 0 1 2 3 4			Brainstem, coma	
	Dry Cornea	STT: OD _____ mm OS _____ Dry nose: R L			CN3P, CN7	
Fundic exam	IOP: OD _____ mmHg OS _____ mmHg anesthetic: _____ Optic disk: papilledema Retinal vessels: atrophy tortuous hemorrhage Tapetum: atrophy hyperreflective hyporefective detachments Chorioretinitis infiltrates medallion			CN 2, hypertension, coagulopathy, infiltrative disease, demyelinating disease		
Ear	External ear canal: AD - exudate redness mass cerumen AS - exudate redness mass cerumen Ear drum: AD - normal abnormal AS - normal abnormal			CN3S (Horner's syndrome), CN 7, CN 8		

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Attitude, Posture and Gait, cont'd

Lesion Localization

Attitude (Eye & Head Position)	Normal	Head Turn R	Head Turn L		Forebrain
	Strabismus	OD Positional: OS Positional:		Direction: Direction:	Brainstem
	Head Tilt R	Head Tilt L			Brainstem, ear, CN 8
	Side to side head movement	Bobble Head			Cerebellum, Bilateral vestibular (brainstem, ear)
Posture (Body position with respect to gravity)	Normal	Wide Based Stance	Crouched, reluctant to move		Many neuro conditions Bilateral vestibular (brainstem, ear)
	Head Pressing				Forebrain
	Sternally Recumbent	Laterally Recumbent			Paresis or Paralysis
	Opisthotonus				Cerebellum, Brainstem
	Schiff-Sherrington (thoracic extensor tone, pelvic paralysis)		Yes	No	TL Spinal Cord
	Decerebrate Rigidity (extensor rigidity, decreased consciousness, sometimes opisthotonus)		Yes	No	Brain Stem
	Decerebellate Rigidity (opisthotonus, thoracic extension, hip flexion, normal consciousness)		Yes	No	Cerebellum
Postural Reactions	Proprioceptive Positioning	RF – 0 1 2 RR – 0 1 2	LF – 0 1 2 LR – 0 1 2		Brain, Spinal Cord Peripheral Nerves, UMN, LMN
	Placing – non-visual (tactile)	RF 0 1 2 3 4 RR 0 1 2 3 4	LF 0 1 2 3 4 LR 0 1 2 3 4		
	Placing - visual	RF 0 1 2 3 4 RR 0 1 2 3 4	LF 0 1 2 3 4 LR 0 1 2 3 4		All above and vision
	Hopping	RF 0 1 2 3 4 RR 0 1 2 3 4	LF 0 1 2 3 4 LR 0 1 2 3 4		LMN – short hops UMN – wide hops
	Hemi-walking	R – 0 1 2	L – 0 1 2		Brain, Spinal Cord Peripheral Nerves, UMN, LMN
	Wheelbarrowing	Front 0 1 2 3 4	Back 0 1 2 3 4		
Gait	Lameness Grade 1 – barely noticeable Grade 2 – weight bearing, noticeable Grade 3 – sometimes skips Grade 4 – often carries Grade 5 – always carries	RF grade 1 grade 2 grade 3 grade 4 grade 5 RR grade 1 grade 2 grade 3 grade 4 grade 5	LF grade 1 grade 2 grade 3 grade 4 grade 5 LR grade 1 grade 2 grade 3 grade 4 grade 5		Painful limbs carried --orthopedic pain --root signature Paretic limbs dragged
	Stride Length (short 0-1, long 3-4)	RF: 0 1 2 3 4 RR: 0 1 2 3 4	LF: 0 1 2 3 4 LR: 0 1 2 3 4		0-1 limb pain 0-1 LMN LF/RF – SC CervThor LR/RR – SC Lumbar 2-4 UMN, cerebellum

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Attitude, Posture and Gait, cont'd				Lesion Localization
Gait, cont'd	Sensory Ataxia – CP deficits, wide based stance, swaying gait, long stride, drag/knuckle toes	RF 2 3 4 RR 2 3 4	LF 2 3 4 LR 2 3 4	Forebrain, Brain Stem, SC, Peripheral Nerve
	Cerebellar Ataxia – dysmetria, hypermetria, broad based stance. May also have intention tremor.	Right Left		Cerebellum Rare-spinocerebellar Tract
	Unilateral Vestibular Ataxia – leaning/falling, head tilt, nystagmus (often horizontal)	Right Left		CN8 inner/middle ear dz.
	Bilateral Vestibular Ataxia – crouched position, reluctant to move, side to side head movement	No Yes Fearful		Bilateral CN8 Bilateral ear disease Brain stem
	Paresis – partial loss of voluntary movement Paralysis – total loss of voluntary movement	RF 0 1 2 Fatigue Inc-Tone Dec -Tone RR 0 1 2 Fatigue Inc-Tone Dec -Tone LF 0 1 2 Fatigue Inc-Tone Dec -Tone LR 0 1 2 Fatigue Inc-Tone Dec -Tone		UMN inc tone LMN dec tone
	Abnormal Movement Direction	Normal Wandering Wide Circles R Wide Circles L		Cerebrum
Cranial Nerve Reflexes (other than eye)				Lesion Localization
Cavernous Sinus Syndrome	No Yes - more than one: CN 3, 4, 5 (temporal & maxillary branches), 6			brainstem (midbrain, pons, medulla)
CN 1 - olfactory	Blindfold and offer food Only rarely indicated	No response sniffs licks eats		Forebrain
CN 2 – optic CN 3 – oculomotor CN 4 – trochlear CN 6 - abducens	See Eye Exam			
CN 5 – trigeminal CN 7 – facial (see also eye exam – corneal reflex)	Muscle tone: R temporalis m. 0 1 2 3 4 L temporalis m. 0 1 2 3 4 R masseter m. 0 1 2 3 4 L masseter m. 0 1 2 3 4 Sensation: R medial palpebral fatigues L medial palpebral fatigues R lateral palpebral fatigues L lateral palpebral fatigues R upper lip R nostril L upper lip L nostril R lower lip L lower lip			Brainstem > forebrain, inner ear, middle ear, CN 5, CN 7
CN 7 - facial	Lip commissures: R Lower L lower Eye symmetry: R wide palpebral fissure L wide palpebral fissure Ear symmetry: R ear droop L ear droop			Brainstem, CN 7 forebrain, inner ear, middle ear
CN 8 – cochlear br.	Response to noise: Turn ears/head toward Turn ears/head away			Brainstem, CN 8, inner ear, middle ear, external ear canal
CN 8 – vestibular br.	See Eye Exam – Nystagmus; See Posture Evaluation.			
CN 9–glossopharyngeal CN 10 – vagus CN 11 - accessory	Gag reflex	Normal R weaker L weaker not present		Brainstem, CN 9, CN 10, CN 11
	Trapezius m.	R atrophy L atrophy		
CN 12 - hypoglossal	Tongue:	R Atrophy deviation L atrophy deviation		Brainstem, CN 12

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Spinal Nerve Reflexes			Lesion Localization
Biceps Reflex	R - 0 1 2 3 4	L - 0 1 2 3 4	LMN – C6-C8, musculocutaneous nerve UMN – CNS lesion above C6
Triceps Reflex	R - 0 1 2 3 4	L - 0 1 2 3 4	LMN – C7-T2, upper radial nerve UMN – CNS lesion above C7
Extensor Carpi Radialis Reflex	R - 0 1 2 3 4	L - 0 1 2 3 4	LMN – C7-T2, upper & lower radial nerve UMN – CNS lesion above C7
Withdrawal (Flexor) Reflex	RF - 0 1 2 3 4 RR - 0 1 2 3 4	RF - 0 1 2 3 4 RR - 0 1 2 3 4	LMN Thoracic Limb – C6-T2, axillary nerve, musculocutaneous nerve, radial nerve, median nerve, ulnar nerve UMN (Crossed Extensor) Thoracic Limb – CNS above C6 LMN Pelvic Limb – L7-S2, sciatic nerve UMN (Crossed Extensor) Pelvic Limb – CNS above L6-L7
Panniculus Reflex	R - 0 1 2 3 4 Cranial – Caudal -	L - 0 1 2 3 4 Cranial – Caudal -	Normal one side and LMN other – C8-T1, brachial plexus, lateral thoracic nerve Ends cranial to sacral area – SC lesion 1-4 segments cranially
Gastrocnemius Reflex	R - 0 1 2 3 4	L - 0 1 2 3 4	LMN – L6-S2 spinal cord, sciatic nerve UMN – CNS above L6
Patellar Reflex	R - 0 1 2 3 4	L - 0 1 2 3 4	LMN – L4-L6 spinal cord, femoral nerve UMN – CNS above L4 Pseudohyperreflexia – L6-S1 spinal cord
Perineal (anal) Reflex	R - 0 1 2 3 4 Anal tone 0 1 2	L - 0 1 2 3 4 Anal tone 0 1 2	LMN – S1-Cd spinal cord, perineal nerve, pudendal nerve
Palpation and Pain Assessment			Lesion Localization
Head	Tactile sensation	See Cranial Nerve exam	
	Skull	Open fontanelle	cerebrum
	Mastication Muscles	Atrophy R L Swelling Temporalis m. Pain Masseter m. Open Mouth: 0 1 3 Sedation: _____	Brainstem, orthopedic, myopathy, ear, neck pain
	Eye Retropulsion	Pain firm R L	Retrolbulbar mass or abscess, glaucoma
Neck	Palpation	Spine curvature – direction: Palpable fracture Muscle – atrophy swelling/mass R L	
	Pain	Head down Spinous processes Transverse processes Comments:	forebrain, cervical spine, cervical SC, muscle pain
	Range of Motion	Right 0 1 2 Left 0 1 2 Up 0 1 2 Down 0 1 2	

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Palpation and Pain Assessment, cont'd

Lesion Localization

Back	Palpation	Spine curvature – direction: Palpable fracture				Muscle – atrophy swelling/mass R L					
	Pain	Spinous processes Lift Tail Comments:	Transverse processes LS palpation				Spinal pain, spinal cord pain, muscle pain				
Thoracic Limbs	Sensation (pain)	Superficial	RF 0 1 2 3 4				RF 0 1 2 3 4				Dec pain – C6-T2 SC, brachial plexus nerves Inc pain – thalamus, myopathy
		Deep	RF 0 1 2 3 4				RF 0 1 2 3 4				
	Muscles	RF atrophy Pain Tone 0 1 2 3 4 swelling				LF atrophy Pain Tone 0 1 2 3 4 swelling				Neuropathy, myopathy, junctionopathy, metabolic disease	
Pelvic Limbs	Sensation (pain)	Superficial	RR 0 1 2 3 4				RR 0 1 2 3 4				Dec pain – L4-S2 SC, femoral nerve, sciatic nerve Inc pain – thalamus, myopathy
		Deep	RR 0 1 2 3 4				RR 0 1 2 3 4				
	Muscles	RR atrophy Pain Tone 0 1 2 3 4 swelling				LR atrophy Pain Tone 0 1 2 3 4 swelling				Neuropathy, myopathy, junctionopathy, metabolic disease	
Tail	Sensation (pain)	Superficial	0 1 2 3 4				Dec pain – S1-S3 SC, pelvic nerve Inc pain – thalamus, myopathy				
		Deep	0 1 2 3 4								
	Muscles	Atrophy Pain Tone 0 1 2 3 4 swelling				Neuropathy, myopathy, junctionopathy, metabolic disease					
Bladder	Size: normal large Expression: easy difficult		UMN – lesion above sacral SC LMN – LS SC lesion								