# LafeberVet.com Avian Neurologic Examination Form

Date: Time:

0 = absent +1 = reduced +2 = normal 3+ = increased 4+ = clonus

## I. SUBJECTIVE EVALUATION: (statement of primary complaint)

## II. OBJECTIVE EVALUATION

### A. Observation (circle or describe)

Mental status:
Level of consciousness: alert, depressed, stuporous, comatose
Content of consciousness: appropriate, confusion, dementia, delirium

Posture
*Stands on perch w/ head erect, wings folded, and legs hip-width apart?*
Normal, head tilt, falling, paresis, nystagmus, leaning
Positional nystagmus present?

Movement (gait)
*Is knuckling observed? Able to step up and over or onto different-sized perches?*
Normal, ataxia, dysmetria, circling, falling, rolling, tremors

### B. Palpation

Muscular (symmetry, tone, atrophy)
Skeletal

### C. Postural reactions

| Reactions | Left | Right |
|---|---|---|
| Pushing: Push the bird to the side and evaluate the compensatory response of the opposite limbs. | | |
| Conscious proprioception: Place dorsal surface of bird's foot against the perch OR slowly move paper under the foot sideways. | | |
| Visual placing: Step onto perch | | |
| Tactile placing: Hood raptors or ratites if possible. | | |
| Drop and flap: *Evaluates ascending sensory pathways to cerebral cortex and descending motor pathways to thoracic limb.* Grasp legs close to body, hold bird high, and simulate a drop OR drop the bird onto a soft cushion. The bird should pull equally with both wings to prevent its fall to the ground. | | |
| Extensor postural thrust: *Evaluates ascending sensory pathways to cerebral cortex and descending motor pathways to pelvic limb.* Hold bird around body and wings, then lower bird to the ground. Pelvic limb should move in a walking fashion. | | |
| Hopping: *Rarely possible, but may be attempted by bandaging or holding one leg up against the body.* | | |

### D. Cranial nerve reflexes

| Function test | Nerve(s) | Left | Right |
|---|---|---|---|
| Olfactory | I | | |
| Menace* | II, III or V (not VII in birds!) | | |
| Pupil size, symmetery | | S-M-L | S-M-L |
| Pupillary light response | II, III, voluntary motor | | |
| Fundic exam | | | |
| Strabismus | III, IV, VI | | |
| Nystagmus | III, VIII, IX, XI | | |

| Function test | Nerve(s) | Left | Right |
|---|---|---|---|
| Oculovestibular | VIII | | |
| Sensation | V | | |
| Corneal | V, VII | | |
| Mastication | V | | |
| Facial symmetry** | VII | | |
| Palpebral | V, VII | | |
| Swallowing*** | IX, X | | |
| Tongue**** | XII | | |

* Difficult to elicit in most birds. A positive reaction may be demonstrated by a rapid change in iris size only.
** Muscles of facial expression are poorly developed. Difficult to evaluate CN7
*** Gag reflex? Crop atony?
**** Are parrots able to manipulate objects with the tongue? Evaluate non-psittacines for tongue movement in relation to the oropharynx. (CNXII also supplies the syrinx).

## E. Spinal (segmental) reflexes

| Reflex | Segments | Left | Right |
|---|---|---|---|
| Wing withdrawal | Brachial plexus and nerves | | |
| Biceps (*dificult*) | | | |
| Triceps (*difficult*) | | | |
| Pedal withdrawal | Ischiatic nerve and sacral plexus | | |
| Patellar (*difficult*) | Femoral nerve and lumobsacral (LS) plexus | | |
| Gastrocnemius (*difficult, less reliable*) | Tibial branch of ischiatic nerve and LS plexus | | |
| Vent sphincter | Pudendal nerve, pudendal plexus, caudal ssegments of spinal cord | | |

## F. Cloacal function

Evidence of voluntary voiding?
Cloaca distended?
Does cloaca empty fully after voiding?

## G. Sensation

To assess superficial pain, tweak or pluck feathers to determine where touch or pain perception is lost OR lightly prick lateral to vertebral column. (*Remember birds lack the cutaneous trunci muscle, and panniculus reflex cannot be used*).

To assess deep pain, begin caudally at the vent and legs. Begin with a light touch, and progress to deep palpation to a sharp pin prick, and finally a hard pinch.

# III. ASSESSMENT

## Lesion localization:

- Peripheral nerve
- Spinal cord
- Brain
- Generalized neuromuscular
- Normal

# IV. Plan/Differential Diagnosis