



**centralcpd**

Part of Improve International

*Deep Dives*

**Ophthalmology**

# Ophthalmology

## Learning Objectives

### 1. The Ophthalmic Examination

- a. Ability to perform key aspects of the ophthalmic examination, including:
  - i. Distance examination including observation of the animal's demeanour and movement within its environment
  - ii. Assessment of symmetry and ocular discharge
  - iii. Assessment of globe: position, size, and movement
  - iv. Neuro-ophthalmic testing: menace response, dazzle reflex, pupillary light reflex (PLR), corneal reflex, vestibulo-ocular reflexes
  - v. Schirmer tear test
  - vi. Close examination of adnexa and globe
  - vii. Use of examination tools to perform ophthalmic examination (e.g. direct and indirect ophthalmoscope +/- slit lamp biomicroscope)
  - viii. Tonometry
  - ix. Posterior segment/ocular fundus examination
  - x. Lens examination after pupil dilation
- b. Ability to perform additional diagnostic tests when indicated, including:
  - i. Corneoconjunctival culture and cytology
  - ii. Use of ophthalmic dyes

### 2. Systemic Diseases Affecting the Eye

- a. Ability to recognise systemic disease causing extraocular clinical signs including:
  - i. Blepharitis
  - ii. Scleritis/episcleritis
- b. Ability to recognise systemic disease causing corneal disease including:
  - i. Keratitis (non-ulcerative)
  - ii. Pannus
  - iii. Keratoconjunctivitis sicca
- c. Awareness that the following types of systemic disease can be a cause of uveitis:
  - i. Infectious disease
  - ii. Immune mediated disease
  - iii. Neoplastic disease
- d. Awareness that the following types of systemic disease can be a cause of mydriasis:
  - i. Dysautonomia
  - ii. Intracranial disease
  - iii. Toxicity
- e. Awareness that cataracts may be caused by an underlying metabolic disease or toxicity
- f. Ability to recognise the following systemic conditions as causes of blindness:
  - i. Sudden acquired retinal degeneration syndrome (SARDS)
  - ii. Uveodermatologic syndrome
  - iii. Systemic hypertension
  - iv. Hyperviscosity syndrome
  - v. Central nervous disease

- g. Ability to recognise the following orbital diseases:
  - i. Extraocular myositis
  - ii. Masticatory myositis
  - iii. Zygomatic gland adenitis
  - iv. Orbital cellulitis
  - v. Orbital neoplasia
- h. Ability to recognise that the following types of systemic disease can be a cause of hyphema, vitreous and retinal haemorrhage:
  - i. Coagulopathies
  - ii. Systemic hypertension
  - iii. Infectious disease
  - iv. Neoplasia

### **3. Disorders of the Cornea and Ocular Surface**

- a. Ability to assess the pre-corneal tear film and diagnose quantitative keratoconjunctivitis sicca
- b. Knowledge of non-inflammatory corneal conditions including: corneal dystrophy (hereditary), lipid keratopathy
- c. Understanding of the pathophysiology of ulcerative keratitis and ability to make an accurate assessment and consequently decide on an appropriate management plan

### **4. Disorders of the Lens**

- a. Ability to differentiate benign age-related changes (nuclear sclerosis) from pathological cataracts
- b. Understanding of the aetiology of cataracts and management options
- c. Knowledge of the clinical presentation of lens luxation in both dogs and cats, assessment and management options

### **5. Disorders of the Retina**

- a. Ability to recognise hypertensive retinopathy and an understanding of aetiology
- b. Ability to recognise changes in retinal vasculature and knowledge of possible causes
- c. Ability to recognise changes in tapetal reflectivity and knowledge of possible causes
- d. Ability to recognise different types of retinal detachment and an understanding of aetiology
- e. Knowledge of the clinical presentation of sudden acquired retinal degeneration syndrome (SARDS) and diagnosis of this condition
- f. Understanding of the diagnosis and clinical presentation of optic neuritis and management options
- g. Knowledge of the aetiologies and clinical signs seen with retinal inflammatory disease

### **6. Uveitis and Glaucoma**

- a. Knowledge of the clinical presentation of uveitis (including differences between cats and dogs), potential causes, sequelae and treatment options
- b. Knowledge of the pathophysiology and clinical presentation of glaucoma, potential causes and treatment (including differences between cats and dogs)

## 7. Feline Ophthalmology

- a. Understanding of the causes of feline conjunctivitis and treatment options
- b. Knowledge of the aetiology of feline eosinophilic keratoconjunctivitis, diagnosis and treatment
- c. Knowledge of the pathophysiology of feline corneal sequestrum and possible treatment options
- d. Ability to identify hypertensive ocular disease and perform the appropriate diagnostic work up
- e. Understanding of the ocular manifestations of feline infectious peritonitis and treatment