

SUGGESTED RESOURCE MATERIAL FOR ACVO EXAMINATION

Revised October 2010

All Written Examination questions are supported by a journal reference within the past seven publication years or from a textbook or journal article on the list of “classic” references.

Textbooks

Anatomy, Histology, Embryology

Prince. Comparative Anatomy of the Eye. CC Thomas, 1956 (recommend review of the rabbit, pig, ruminant sections, other species are covered in more contemporary texts- see below).

Evans and Christensen. Miller's Anatomy of the Dog, Ocular and Orbital Sections. WB Saunders Co, 1992 (chapters on eye, orbit, and cranial nerves).

Laboratory And Exotic Animals

Duke-Elder. System of Ophthalmology, Vol 1, The Eye in Evolution. CV Mosby Co, 1958 (especially important are chapters on exotic and domestic species).

Physiology

Moses. Adler's Physiology of the Eye. CV Mosby Co, (Most recent edition)

Pharmacology

Havener. Ocular Pharmacology. (6th ed.) CV Mosby Co., (Most recent edition).

Zimmerman, Textbook of Ocular Pharmacology Lippincott Williams & Wilkins, (most recent edition).

Pathology, Immunology

Jubb and Kennedy, Pathology of Domestic Animals, (Most recent edition) (eye chapter only).

Spencer. Ophthalmic Pathology: Atlas and Text (Vol I, II, III). WB Saunders Co., (Most recent edition)

Yanoff and Fine. Ocular Pathology: A Color Atlas. JB Lippincott, (Most recent edition)

(for all of these texts, review general ocular pathology, the histology and basic mechanisms of pathologic lesions for each section of the eye, and pathologic features of diseases directly applicable to veterinary medicine)

Neuro-Ophthalmology

Gelatt (ed.) Veterinary Ophthalmology. Lippincott, Williams and Wilkins, (Most recent edition). (chapter by Shamir and Ofri).

Miller's Anatomy of the Dog. WB Saunders, (Most recent edition) (cranial nerve section).

Oliver and Lorenz. Handbook of Veterinary Neurologic Diagnosis, WB Saunders, (Most recent edition) (chapter on Blindness, Anisocoria, and Abnormal Eye Movements).

Surgery

Eisner. Eye Surgery, An Introduction to Operative Technique. Springer-Verlag, (Most recent edition)

Slatter. Textbook of Veterinary Surgery, WB Saunders, (Most recent edition) (Ocular Surgery Sections).

Jaffee NS. Cataract Surgery and Its Complications., CV Mosby Co., (Most recent edition).

Seibel BS: Phacodynamics: Mastering the Tools and Techniques of Phacoemulsification Surgery. Slack Inc. (Most recent edition).

Clinical Ophthalmology

Gelatt (4th ed.) Veterinary Ophthalmology. Lippincott, Williams and Wilkins

Vet Clinics of North America (All issues relating to ophthalmology)

Gilger BC. Equine Ophthalmology. Elsevier, Philadelphia, 2005

Lavach. Large Animal Ophthalmology, CV Mosby Co., 1990 (though this text is out of print, it is still available in many veterinary school libraries and is essential reading – but specific questions will not originate from this book).

Rubin. Atlas of Veterinary Ophthalmoscopy, Lea and Febiger, 1974 (though this text is out of print, it is still available in many veterinary school libraries and is essential reading – but specific questions will not originate from this book).

Rubin. Inherited Eye Diseases in Purebred Dogs. William & Wilkins, 1989 (though this text is out of print, it is still available in many veterinary school libraries and is essential reading – but specific questions will not originate from this book).

Barnett KC. Color Atlas of Veterinary Ophthalmology, Williams and Wilkins, (Most recent edition) *(Recommended for Image Recognition examination preparation)*

Barnett KC. Color Atlas and Text of Equine Ophthalmology, CV Mosby/Wolf, (Most recent edition) *(Recommended for Image Recognition examination preparation)*

Ketring KL, Glaze MB. Atlas of Feline Ophthalmology. Veterinary Learning Systems, (Most recent edition) *(Recommended for Image Recognition examination preparation)*

Joan Dziezyc, Nicholas J. Millichamp Color Atlas of Canine and Feline Ophthalmology. W.B. Saunders *(Recommended for Image Recognition examination preparation)*

Martin CL. Ophthalmic Disease in Veterinary Medicine. Manson Publishing, *(Recommended for Image Recognition examination preparation)*

Brooks DE. Equine Ophthalmology for the Equine Practitioner. Teton NewMedia, (Most recent edition) *(Recommended for Image Recognition examination preparation)*

Journals

Past Seven Years (preceding January 1 of the year of the examination)

** Note: Beginning with journal publication dates of January 1, 2010 and later, no questions on the Written examination will be derived from case reports that involve single animals. Review of images in such case reports is suggested for Image Recognition exam preparation.

Veterinary Journals:

Journal of the American Veterinary Medical Association

American Journal of Veterinary Research

Veterinary Ophthalmology

Journal of Small Animal Practice

Canadian Veterinary Journal

Journal of the American Animal Hospital Association

Equine Veterinary Journal

Veterinary Pathology

Veterinary Surgery

Veterinary Immunology and Immunopathology

Veterinary Record

Journal of Veterinary Internal Medicine

Clinical Techniques in Small Animal Practice (All issues relating to ophthalmology)

Clinical Techniques in Equine Practice (All issues relating to ophthalmology)

(Note: Articles from these veterinary journals should be reviewed for any situation or disease which involves ocular, periocular, or neuro-ophthalmic structures or systemic conditions relevant to ophthalmic disease.)

Other Journals:

Journal of Ocular Pharmacology and Therapeutics
Investigative Ophthalmology and Visual Science
Survey of Ophthalmology
American Journal of Ophthalmology
Experimental Eye Research
Science
Annals of Ophthalmology
Vision Research
British Journal of Ophthalmology
Ophthalmic Research
Comparative Medicine
Archives of Ophthalmology
Ophthalmology
Current Eye Research
Journal of Comparative Pathology
Cornea
Graefe's Archives for Clinical and Experimental Ophthalmology
Retina
Journal of Cataract and Refractive Surgery
Journal of Glaucoma

(Note: Review of basic science and human clinical journals should be limited to those articles dealing with situations or diseases directly applicable to veterinary ophthalmology (i.e.-where a common domestic animal is used as a animal model). Review of human clinical conditions or basic science articles unrelated to veterinary ophthalmology is not necessary for exam preparation.)

Supplemental (“Classic”) Journal Article List

(Revised 10/07)

Acland, G.M., and Aguirre, G.D.: Retinal degenerations in the dog: IV. Early retinal degeneration (erd) in Norwegian Elkhounds. *Exp. Eye Res.*, 44:491, 1987.

Aguirre, G.D., and Acland, G.M.: Variations in retinal degeneration phenotype inherited at the prcd. locus. *Exp. Eye. Res.* 46:663,1988.

Aguirre, G.D., and Laties, A.: Pigment epithelial dystrophy in the dog. *Exp. Eye. Res.*, 23:247, 1976.

Aguirre, G.D., and Rubin, L.F.: Progressive retinal atrophy in the Miniature Poodle: An electrophysiologic study. *J. Am. Vet. Med. Assoc.*, 160:191,1972.

Aguirre GD, Rubin LF, Bistner SI. Development of the canine eye. *Am J Vet Res* 1972;33(12):2399-2414.

Aguirre, G.D., et al.: Rod-cone dysplasia in Irish Setters: A defect in cyclic GMP metabolism in visual cells. *Science*, 201:1133, 1978.

Aguirre, G.D.: Electroretinography in veterinary ophthalmology. *J. Am. Anim. Hosp. Assoc.*, 9:234, 1973.

Aguirre, G.D.: Retinal degeneration in the dog. I. Rod dysplasia. *Exp. Eye Res.*, 26:233, 1977.

Albert, D.M., et al.: Retinal neoplasia and dysplasia. I. Induction by feline leukemia virus. *Invest. Ophthalmol. Vis. Sci.*, 16:325, 1977.

Albert, D.M., et al: Canine herpes-induced retinal dysplasia and associated ocular anomalies. *Invest. Ophthalmol. Vis. Sci.*, 15:267, 1976.

Anderson: Morphologic recovery in the reattached retina. *Invest. Ophthalmol. Vis. Sci.*, 27(2):168-183, 1986.

Bahn CF, Glassman RM, MacCallum DK, Lillie JH, Meyer RF, Robinson BJ, Rich NM.: Postnatal development of corneal endothelium. *Invest Ophthalmol Vis Sci.* 1986 Jan;27(1):44-51.

Bedford PGC. A gonioscopic study of the iridocorneal angle in the English and American breeds of cocker spaniel and the basset hound. *J Small Anim Pract* 1977;18:631-642.

Bellhorn, R.W., and Bellhorn, M.S.: The avian pecten. I. Fluorescein permeability. *Ophthalmol. Res.*, 7:1, 1975.

Bellhorn, R.W., Aguirre, G.D., and Bellhorn, M.B.: Feline central retinal degeneration. *Invest. Ophthalmol. Vis. Sci.* 13:608, 1974.

Bellhorn, R.W.: A survey of ocular findings in 16-to-24-week-old beagles. *J. Am. Vet. Med. Assoc.*, 162:139, 1973.

Bellhorn, R.W.; Fluorescein fundus photography in veterinary ophthalmology. *J. Am. Anim. Hosp. Assoc.*, 9:227, 1973.

Bergsma, D.R., and Brown, K.S.: White fur, blue eyes and deafness in the domestic cat. *J. Hered.*, 62:171, 1971.

Berson, E.L., et al.: Retinal degeneration in cats fed casein. II. Supplementation with methionine, cysteine, or taurine. *Invest. Ophthalmol. Vis. Sci.*, 15:52, 1976.

Bill, A.: Formation and drainage of aqueous humor in cats. *Exp. Eye Res.*, 5:185, 1966.

Bistner, S.I., Rubin, L.F., and Saunders, L.Z.: The ocular lesions of bovine viral diarrhea-mucosal disease. *Vet. Pathology*, 7:272, 1970.

Blair, N.P., Dodge, J.T., and Schmidt, G.M.: Rhegmatogenous retinal detachment in Labrador Retrievers. I. Development of retinal tears and detachment. *Arch. Ophthalmol.*, 103:842, 1985.

Blair, N.P., Dodge, J.T., and Schmidt, G.M.: Rhegmatogenous retinal detachment in Labrador Retrievers. II. Proliferative vitreoretinopathy. *Arch. Ophthalmol.*, 103:848, 1985.

Bok: Retinal photoreceptor-pigment epithelium interactions. *Invest. Ophthalmol. Vis. Sci.*, 26(11):1659-1694, 1985.

Buyukmihci, N.C., Aguirre, G., and Marshall, J.: Retinal degenerations in the dog. II. Development of the retina in rod-cone dysplasia. *Exp. Eye Res.*, 30:575, 1980.

Buyukmihci, N.C.: Photic retinopathy in the dog. *Exp. Eye Res.*, 33:95, 1981.

Carmichael, L.E.: The pathogenesis of ocular lesions of infectious canine hepatitis I. Pathology and virological observations. *Pathol. Vet.*, 1:73, 1964.

Carmichael, L.E.: The pathogenesis of ocular lesions of infectious canine hepatitis II. Experimental ocular hypersensitivity produced by the virus. *Pathol. Vet.*, 2:344, 1965.

Chase, J.: The evolution of retinal vascularization in mammals. *Ophthalmology*, 89:1518-1525, 1982.

Crispin SM, Barnett KC. Dystrophy, degeneration and infiltration of the canine cornea. *J Small Anim Pract* 1983;24:63-83.

- Curtis R, Barnett KC. Primary lens luxation in the dog. *J Small Anim Pract* 1980;21:657-668.
- Davidson MG et al. Phacoemulsification and Intraocular Lens Implantation: a Study of Surgical Results in 182 Dogs. *Vet Comp Ophthalmol* 1991;1(4):233-238.
- de Schaepdrijver L, Simoens P, Lauwers H. Morphologic study of the retinal microvasculature in the dog. *Vet Comp Ophthalmology* 1996;6(2):100-109.
- Donovan, A.: The postnatal development of the cat retina. *Exp. Eye Res.*, 5:249, 1966
- Gelatt, K.N. et al.: Animal models for inherited cataracts: A review. *Curr. Eye Res.*, 3(5):765-778, 1984.
- Gelatt, K.N., Henderson, S.F., and Steffen, G.R.: Fluorescein angiography of the normal and diseased ocular fundi of the laboratory dog. *J. Am. Vet. Med. Assoc.*, 169:980, 1976.
- Gelatt KN, Peiffer RL, Gwin RM, Gum GG, Williams LW. Clinical manifestations of inherited glaucoma in the beagle. *Invest Ophthalmol Vis Sci* 1977;16(12):1135-1142.
- Gum, G.C., et al.: Maturation of the retina of the canine neonate as determined by electroretinography and histology. *Am. J. Vet. Res.*, 45:1166, 1984.
- Gwin, R.M., Lerner, I., Warren, K., and Gum, G.: Decrease in canine corneal endothelial cell density and corneal thickness as a function of age. *Invest. Ophthalmol. Vis. Sci.*, 22:267, 1982.
- Hayes, K.C., Nielson, S.W., and Eaton, H.D.: Pathogenesis of the optic nerve lesion in vitamin A deficient calves. *Arch. Ophthalmol.*, 80:777, 1968.
- Johnston, M.C., et al.: Origins of avian ocular and periocular tissues. *Exp. Eye Res.*, 29:27-43. 1979.
- Jubb, K.V., Saunders, L.Z., and Coates, H.V.: The intraocular lesions of canine distemper. *J. Comp. Pathol.*, 67:21, 1957.
- Kern TJ. Orbital neoplasia in 23 dogs. *JAVMA* 1985;186(5):489-491.
- Martin, C.L., and Chambreau, T.: Cataract production in experimentally orphaned puppies fed a commercial replacement for bitch's milk. *J. Am. Anim. Hosp. Assoc.*, 18:115, 1982.
- Martin, C.L.: Development of pectinate ligament structure of the dog: Study by scanning electron microscopy. *Am. J. Vet. Res.*, 35:1433, 1974.
- Martin, C.L.: Gonioscopy and anatomical correlations of the drainage angle of the dog. *J. Small Anim. Prac.*, 10:171, 1969.

Martin, C.L.: Scanning electron microscopic examination of selected canine iridocorneal angle abnormalities. *J. Am. Anim. Hosp. Assoc.*, 11:300, 1975.

Martin, C.L.: Slit lamp examination of the normal canine anterior ocular segment. Part I: Introduction and technique. *J. Small Anim. Pract.*, 10:143, 1969.

Martin, C.L.: Slit lamp examination of the normal canine anterior ocular segment. Part II: Description. *J. Small Anim. Pract.*, 10:151, 1969.

Martin, C.L.: Slit lamp examination of the normal canine anterior ocular segment. Part III: Description and summary. *J. Small Anim. Pract.* 10:163, 1969.

Martin, C.L.: The normal canine iridocorneal angle as viewed with the scanning electron microscope. *J. Am. Anim. Hosp. Assoc.*, 11:180, 1975.

Miller PE, Pickett JP. Comparison of the human and canine Schiötz tonometry conversion tables in clinically normal dogs. *JAVMA* 1992;201(7):1021-1025.

Miller PE, Pickett JP. Comparison of the human and canine Schiötz tonometry conversion tables in clinically normal cats. *JAVMA* 1992;201(7):1017-1020.

Miller PE, Murphy CJ. Vision in dogs. *JAVMA* 1995;207(12):1623-1634.

Millichamp NJ, Dziezyc J.: Cataract phacofragmentation in horses. *Vet Ophthalmol.* 2000;3(2-3):157-164.

Moore CP, Wilsman NJ, Nordheim EV, Majors LJ, Collier LL. Density and distribution of canine conjunctival goblet cells. *Invest Ophthalmol Vis Sci* 1987;28:1925-1932.

Murphy, C.J., and Howland, H.C.: The optics of comparative ophthalmology. *Vision Res.*, 27:599, 1987.

Mutti DO, Zadnik K, Murphy CJ.: Naturally occurring vitreous chamber-based myopia in the Labrador retriever. *Invest Ophthalmol Vis Sci.* 1999 Jun;40(7):1577-84.

Narfstrom, K.: Progressive retinal atrophy in the Abyssinian cat: Clinical characteristics. *Invest. Ophthalmol. Vis. Sci.*, 26:193, 1985.

Peiffer, R.L., Jr., Gelatt, K.N., and Gum, G.C.: Determination of facility of outflow in the dog comparing in vivo and in vitro tonographic and constant pressure perfusion techniques. *Am. J. Vet. Res.*, 37:1473, 1976.

Peiffer RL, Wilcock BP. The Pathogenesis and Significance of Pre-iridal Fibrovascular membrane in Domestic Animals. *Vet Pathol* 1990;27:41-45.

Percy, D.H., Scott, F.W., and Albert, D.M.: Retinal dysplasia due to feline panleukopenia virus infection. *J. Am. Vet. Med. Assoc.*, 167:935, 1975.

Priester, W.A.: Congenital ocular defects in cattle, horses, cats, and dogs. *J. Am. Vet. Med. Assoc.*, 160:1504-1511, 1972.

Ramsey DT, Hauptman JG, Petersen-Jones SM.: Corneal thickness, intraocular pressure, and optical corneal diameter in Rocky Mountain Horses with cornea globosa or clinically normal corneas. *Am J Vet Res.* 1999 Oct; 60 (10):1317-21.

Riis RC, Sheffy BE, Loew E, Kern TJ, Smith JS. Vitamin E deficiency retinopathy in dogs. *Am J Vet Res* 1981;42:74-86.

Roberts, S.R., and Dellaporta, A., and Winter, F.C.: The collie ectasia syndrome. Pathology of the eyes of young and adult dogs. *Am. J. Ophthalmol.*, 62:728, 1966.

Roberts, S.R., Dellaporta, A., and Winter, F.C.: The collie ectasia syndrome. Pathologic alterations of the eyes of pups one to fourteen days of age. *Am. J. Ophthalmol.*, 61:1458, 1966.

Roberts, S.R.: The Collie eye anomaly. *J. Am. Vet. Med. Assoc.*, 155:859, 1969.

Rodriguez-Peralta L.: The blood-aqueous barrier in five species. *Am J Ophthalmol.* 1975 Oct;80(4):713-25.

Sandberg, M.A. et al.: Full field electroretinograms in miniature poodles with progressive rod-cone degeneration. *Invest. Ophthalmol. Vis. Sci.*, 27:1179, 1986.

Schmidt, S.Y., Berson, E.L., and Hayes, K.C.: Retinal degeneration in cats fed casein. I. Taurine deficiency. *Invest. Ophthalmol. Vis. Sci.*, 15:47, 1976.

Schmidt, S.Y., et al.: Retinal degeneration in cats fed casein. III. Taurine deficiency and ERG amplitudes. *Invest. Ophthalmol. Vis. Sci.*, 16:673, 1977.

Sharpnack, et al.: Vascular pathways of the anterior segment of the canine eye. *Am. J. Vet. Res.*, 45(7):1287-1294, 1984.

Shatz, C.J., and Levay, S.: Siamese cat: Altered connections of visual cortex. *Science*, 204:328, 1979.

Shively, J.N., and Epling, G.: Fine structure of the canine eye: cornea. *Am. J. Vet. Res.*, 13:713, 1970.

Shively, J.N., and Epling, G.P.: Fine structure of the canine eye: Iris. *Am. J. Vet. Res.*, 30:219, 1969.

Shively, J.N., Epling, G.P., and Jensen, R.: Fine structure of the postnatal development of the canine retina. *Am. J. Vet. Res.*, 32:283, 1971.

Shively, J.N., Epling, G.P., and Jensen, R.: Fine structure of the canine eye: Retina. *Am. J. Vet. Res.*, 31:1339, 1970.

Stryer, L. The molecules of visual excitation. *Sci. American*, 257(1), 42-50, 1987.

Tripathi, R.C., and Tripathi, B.J.: The mechanisms of aqueous outflow in primates, lower mammals and birds. A comparative study. *Exp. Eye Res.*, 17:393, 1973.

Tripathi, R.C.: Ultrastructure of the exit pathway of the aqueous in lower mammals. *Exp. Eye Res.*, 12:311, 1971.

Van Buskirk, E.M.: The canine eye: The vessels of aqueous drainage. *Invest. Ophthalmol. Vis. Sci.*, 18:223, 1979.

Whiteley, H.E., et al.: Ocular lesions of bovine malignant catarrhal fever. *Vet. Pathol.*, 22:219, 1985.

Wilcock, B.P., and Peiffer, R.L.: Morphology and behavior of primary ocular melanomas in 91 dogs. *Vet. Pathol.*, 23:418, 1986.

Wilcock, B.P., and Peiffer, R.L.: The pathology of lens-induced uveitis in dogs. *Vet. Pathol.*, 24:549, 1987.

Witzel, D.A., et al.: Congenital stationary night blindness: An animal model. *Invest. Ophthalmol. Vis. Sci.*, 17:788-796, 1978.

Wong, et al.: Vasculature of cat eye. *Arch. Ophthalmol.*, 72:351-358, 1964.