



**VETERINARY VOICE:
Tips of the Trade**

Ophthalmology - Canine Diabetic Cataracts

<p>How do diabetic cataracts form?</p>	<p>Diabetes mellitus is commonly associated with rapidly developing, bilaterally symmetric cataract formation in dogs from alterations in lens metabolic pathways. With increased blood glucose levels, lens levels of glucose increase and anaerobic metabolism of glucose by the hexokinase pathway is saturated causing shunting to the sorbitol pathway. Aldose reductase reduces glucose to sorbitol which does not readily diffuse across the lens capsule. Water is imbibed into the lens eventually causing a clinically evident cataract.</p>
<p>Which dogs get diabetic cataracts?</p>	<p>The prevalence of diabetic cataract formation is related to the level of hyperglycemia, lenticular aldose reductase activity, and sorbitol concentration. It is important to educate diabetic dog owners about this complication of diabetes mellitus. A study evaluating incidence and median time to cataract formation found that 50% of diabetics developed cataracts within 6 months of diagnosis and 80% developed cataracts by 1 year after diagnosis.</p>
<p>Are diabetic patients good candidates for cataract surgery?</p>	<p>Many of our cataract patients are diabetics and are excellent candidates for phacoemulsification (cataract surgery). The key to success in any cataract surgery is early removal. Success rates are usually greater than 90% if the cataract is removed <u>prior</u> to becoming hypermature. It is usually recommended for the patient's diabetes to be pretty well-controlled prior to undergoing cataract surgery. Dr. Betbeze will work with the owner and referring veterinarian to make sure that the patient is the best candidate for an uneventful surgery and anesthesia.</p>
<p>Complications unique to diabetic cataracts?</p>	<p>For diabetics, it is especially important to control lens-induced uveitis as the cataracts are developing because they are often so rapidly progressive and osmotically active that intumescence (swelling) of the lens and uveitis commonly ensue. Rare cases of spontaneous lens capsule rupture have also been seen with diabetic cataracts. It is important that the pet receives anti-inflammatory medications as the cataracts are developing to help control uveitis. Depending on the degree of inflammation, a topical NSAID (flurbiprofen) or steroid (prednisolone acetate or neopolydex) should be used 2-4 times a day.</p>
<p>Questions? Ophthalmology Expert: Caroline Betbeze, DVM, MS, DACVO</p>	<p>The Veterinary Specialty Center of Tucson has a board-certified ophthalmologist available for questions and consultations on ophthalmic diseases and surgeries during the weekdays. She is also on call to provide consultations to VSCT emergency doctors and to perform emergency procedures for patients seen by the VSCT emergency service. Board-certified ophthalmologists have four additional years of training after veterinary school and are certified by the American College of Veterinary Ophthalmologists' to assure competency in advanced veterinary ophthalmology.</p>



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