

## Ophthalmology

### Understanding the causes of age-related cloudiness in your dog's eyes.

Many dog owners notice increased cloudiness in their pet's eyes with age, frequently causing concern that this may be cataract development and may be causing vision loss. Fortunately, in the large majority of older dogs, the change in appearance is due to non-vision threatening age-related changes rather than true cataract.

#### What is cataract?

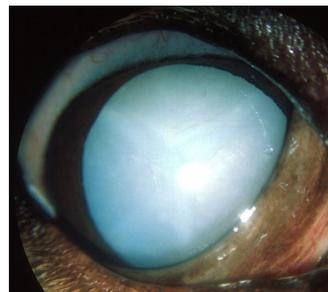
Cataract means opacity of the lens inside the eye. The lens focuses light in the eye on the retina so that images are crisp and sharp. In order to do so, the lens must remain entirely transparent. When this transparency is lost because white defects develop, we call this cataract. Cataract can occur in young to middle-aged dogs (generally due to genetic causes or diabetes mellitus), or can develop with advancing age. Early cataract often does not cause detectable vision deficits in our pets, but advanced cataract leads to blindness. Fortunately, cataracts can generally be corrected surgically. Cataract surgery involves removal of the opaque lens material and replacement with an artificial lens to restore vision. The surgery is performed for middle to late stage cataract in dogs with approximately 90-95% success rate.

#### What other changes may be causing my dog's eyes to appear cloudy?

The center lens normally becomes increasingly dense throughout your dog's lifespan, causing older pets to develop a condition called nuclear sclerosis. While this looks cloudy from the outside, light passes through the lens appropriately, and the condition does not impair vision in the large majority of cases. Occasionally, severe, advanced nuclear sclerosis may appear to result in some difficulty with depth perception and may transition to cataract; but this is quite rare. Nuclear sclerosis is the most common cause of non-vision threatening cloudiness in older dogs, but there are other causes. Corneal disease, glaucoma, intraocular inflammation, and other changes can also lead to a cloudy appearance. If there are any signs of discomfort (squinting, redness, discharge, pawing, rubbing the eyes) or any evidence of reduced vision, please have your pet examined by a veterinarian.

#### Can I assess my dog's eyes at home?

An ophthalmology examination is needed to determine whether the cloudiness in your dog's eyes is due to cataract, nuclear sclerosis, or another condition. However, you may be able to get a few hints at home. If your dog has comfortable, cloudy eyes but a nice bright green eye shine in photos or when you shine a light at the eyes at night (like "red eye" in people, or deer in the headlights), it is unlikely that he/she has significant or advanced cataract. Watching for signs of visual difficulties is also important; significant cloudiness due to cataract (if present in both eyes) is almost invariably associated with noticeable vision loss. As always, if you have concerns, please consult your veterinarian to examine your dog's eyes. Your veterinarian may also recommend consultation with a board-certified ophthalmologist.



Advanced cataract.



Nuclear sclerosis. This picture shows the appearance when a bright light is shone on the eye – the light is reflected from the back of the eye. (This eye appears more cloudy in a normal light environment.)