Veterinary Ophthalmology Clinic

Ophtalmo Vétérinaire

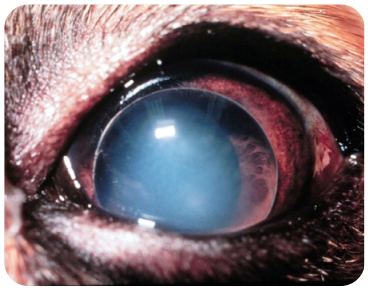
By your veterinary ophthalmologist

Dr. Franck Ollivier
DMV, Ph.D, Dipl ACVO et ECVO
Veterinary ophthalmology specialist (FR)

Luxation of the lens

What is a luxation of the lens?

A luxation of the lens is a complete displacement of the lens from its normal anatomical position, behind the iris (the colored part inside the eye). A luxation can further be defined by the position of the lens at the time of diagnosis. An anterior luxation exists when the lens is located in front of the iris, and a posterior luxation exists when the lens is displaced towards the retina at the back of the eye. A subluxation is defined as a minor displacement ("loosening") of the lens without complete loss of anatomical orientation. A subluxated lens remains behind the iris, but may be slightly forward or behind the normal position.



Anterior lens luxation in a dog

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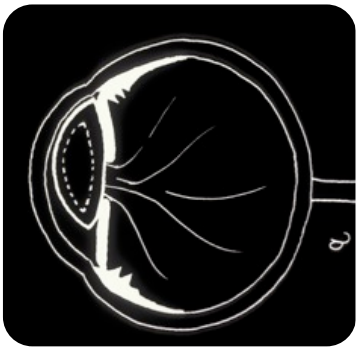

Drawing of an anterior lens luxation

What treatments are available?

When the lens moves around inside the eye, it causes changes to occur with various parts of the eye. These changes can influence the normal drainage of fluid within the eye and can lead to glaucoma. Other changes that can occur include disruption of the vitreous (the jelly-like material behind the lens) that can lead to retinal detachment or bleeding within the eye. If left untreated, a luxated or subluxated lens can cause catastrophic damage inside the eye leading to blindness.

Treatment options will vary depending on the underlying cause of the lens instability. If the lens luxation is considered primary (an inherited condition in some dog breeds), the treatment will be directed at controlling the secondary changes (if any) that have occurred. For eyes that are still visual, the recommended treatment for moderately to severely subluxated lenses is **surgical removal of the lens**.

If a lens is completely luxated, and is not surgically removed, changes will occur inside the eye that will ultimately result in vision loss. This vision loss may occur due to cataract development, glaucoma, retinal detachment / degeneration or other secondary problems. By surgically removing the lens, the patient has a significantly higher chance of retaining vision long term, although there are inherent risks with surgery. There can be a number of problems that develop either during or after surgery that can result in the loss of vision, but we know that if left untreated a lens luxation or progressive subluxation will certainly result in vision loss.
Medical treatment for primary lens subluxation or luxation may be a viable option for a select group of patients. These are patients in whom vision has already been lost, and /or the owner cannot pursue surgical management. The strategy involves application of a topical medication, twice daily, that constricts the pupil, with the aim of keeping the subluxated or luxated lens behind the pupil (in the posterior (back) portion of the eye)). By keeping the lens behind the pupil, the risk of painful secondary glaucoma may be reduced. The treatment is not successful in all patients, and other surgical alternatives to relieve discomfort would be recommended.