

Health & Breeding Update *by Junior Hudson*

Canine Glaucoma is a painful, devastating disease and a leading cause of blindness in dogs. Most cases are primary and of a genetic nature, although secondary cases can occur as a result of other conditions. There are two recognised forms of primary glaucoma, open angle (POAG) and closed angle (PCAG). The latter being far more common. Both are the result of inadequate drainage of aqueous humor (fluid), causing increased IOP (intra-ocular pressure) in the eye. Normal IOP is typically reported as being between 10 - 25 mmHg, with some stating 10 - 20 mmHg. Glaucoma typically involves pressures exceeding 40 mmHg.

PCAG usually appears between the ages of 3 - 7 years but can happen at any age. It occurs due to inherited abnormalities in the aqueous drainage angle of the eye. These abnormalities are congenital and present from birth. There are unfortunately few warning signs that there may be an issue, until glaucoma presents years later, acutely.

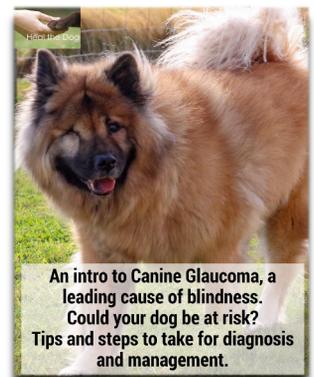
Certain breeds are predisposed to developing glaucoma including the Basset Hound, Spaniels (Cocker, Springer, Welsh), Japanese Shiba Inu, Shar Pei, Border Collie, Siberian Husky, Great Dane, Poodle, Beagle, Boston Terrier, Flat-coated Retriever, Golden Retriever, Chow, Samoyed.

My beautiful girl Nala (pictured) had acute, painful presentation in her right eye (IOP 68mmHg) which led to loss of vision within hours.

Once one eye develops glaucoma, in almost all cases the other eye follows within 12 - 18 months. It is easy to see why this disease needs to be treated by a veterinary specialist and that time is of the essence.

Any signs of eye irritation or discomfort in susceptible breeds, should have glaucoma ruled out by a specialist. Early testing is available for the main predisposing abnormality; Pectinate ligament dysplasia/goniodysgenesis. Goniodysgenesis is (in simplified terms) a sheet of tissue which spans and covers/blocks the eyes aqueous drainage angle. Veterinary eye specialists can perform a test called Gonioscopy; which for the U.K. has grades 0 (unaffected) - 3 (highest risk). Prophylactic medication can be administered to delay glaucoma onset as well as manage the condition for some time. Unfortunately it is not usually possible to completely prevent onset, if the abnormalities are severe enough. It is worth mentioning that not all dogs with Grade 3 goniodysgenesis go on to develop glaucoma, in fact many don't. However, it is currently the main abnormality which can be tested for. Breeders and owners of predisposed breeds should take heed.

Eye IOP is measured using a hand held tonometer. If your dog has been diagnosed with glaucoma or is at a very high risk of development, I strongly recommend asking your veterinary specialist to loan, or ask if they can facilitate the purchase of this equipment for home use. If this is not possible ensure very regular monitoring with your vet. Close monitoring of IOP is important to manage this condition, it can make the difference between catching a pressure spike and treating (medication/surgery) or risking disease progression. Sub-clinical spikes usually precede the first acute presentation of glaucoma, early treatment including medication and surgery (laser/drainage implant) can save vision.





Health & Breeding Update cont...

You may be thinking if there is anything else you can do to delay onset or manage this horrible disease. Well surprisingly (or unsurprisingly for some), diet can play a factor. Antioxidant intake has been found to not only help regulate IOP but also protect the cells responsible for vision, helping restore glaucoma damage. Oxidative stress and inflammation, as with many diseases, is a significant factor in glaucoma. Alongside a balanced, fresh food diet including vegetables/fruit, nutraceuticals that may also be useful include; Vitamin E, C, Lutein, Bilberry extract, Pine bark extract, Zeaxanthin Curcumin, Olive leaf extract and PEA (Palmitoylethanolamide). There is also a link between increased IOP and collar stress, a result of increased pressure on the jugular vein. This suggests the benefits of a harness over wearing a collar for exercise and activity, something I personally like to see anyway.

This is all information I wish I had been more aware of before, as is always the case with hindsight, even though my own dog's onset was later than most (10 years). Hopefully this information will help some of you..

[The Kennel Club – Gonioscopy](#)

[NCBI Article.](#)

[NIH Collar Harness Article.](#)

[BVA Testing](#)

If you haven't yet booked your slot at the testing day then if you possibly can I urge you to do so, there is still some availability. You will be given the results at the end of the examination and with your consent a DNA sample (cheek swab) will be taken. The BVA Ophthalmologist will then collate his findings and report back to the BVA (British Veterinary Association). ESUK are facilitating the study, we are not conducting it. All results remain confidential.

PRICE LIST FOR ESUK MEMBERS

Gonioscopy (Glaucoma risk test)
£40.00

Optional Standard BVA Eye Test
£40.00

For non-ESUK members the price will be slightly more

If you have a Eurasier that has already had a Gonioscopy or a Primary Glaucoma diagnosis then you can still take part in this study. Get in touch and we will send you a DNA testing kit and your dogs results can then be included.



Eurasier Health Screening Event Glaucoma Risk Eye Test

Glaucoma is a leading cause of blindness in dogs. As there have been a number of cases amongst Eurasiers in the U.K, we feel it is important that research be undertaken to assess just how at risk the breed is.

We are very pleased that leading BVA ophthalmologist Robert Lowe BVSc DVOPhthal MRCVS feels the same. Together we are holding a Eurasier eye testing day, where not only will your dog receive a discounted Gonioscopy (Glaucoma risk) test but also an optional BVA eye test (also discounted). Your dog will be taking part in a study to help further understand the incidence of goniodysgenesis (risk factor for glaucoma) in the breed. Not only will this benefit the breed, if your dog is subsequently found to be at risk, early treatment may save their vision.

The event will take place near Leatherhead, Surrey on **Saturday 15th January** and will include free health advice, refreshments and if desired a walk beforehand. The location is just off the M25, for ease of access.

We are asking all Eurasier owners, regardless of club affiliation, to consider taking part in this important event. For Eurasier Society UK members we will be contributing a portion towards an already discounted fee. Even if your dog has already had a BVA eye test, it's likely that Gonioscopy testing was not performed, unless requested.

For further information and to
reserve your place contact
health@eurasiersociety.org.uk