

THE BVA/KC/ISDS EYE SCHEME PRIMARY GLAUCOMA AND GONIODYSGENESIS

What is primary glaucoma?

Primary glaucoma is a painful and blinding disease associated with high pressure inside the eye. It is an inherited condition and is subdivided into two types: **open angle glaucoma** and **closed angle glaucoma**. In both forms, glaucoma results from reduced drainage of fluid (aqueous humour) within the eye, causing a build-up of intraocular pressure which, in turn, leads to pain and blindness. For closed angle glaucoma (but not open angle glaucoma), a screening technique called gonioscopy can identify dogs at risk.

Breeds at risk – open angle glaucoma

In the UK, the **Petit Basset Griffon Vendéen** is the only breed currently certified for primary open angle glaucoma under the Eye Scheme. The genetic mutation responsible for the disease in this breed has recently been discovered by geneticists at the Kennel Club Genetics Centre at the Animal Health Trust and a DNA test is now available. This test will be invaluable in eradicating the disease from this breed as there is no predisposing factor that can be screened for by eye examination before the onset of disease.

Breeds at risk – closed angle glaucoma

Primary closed angle glaucoma is significantly associated with an abnormality within the eye called **goniodysgenesis** (gonio = angle, dysgenesis = defective development; goniodysgenesis is therefore defective development of the drainage angle). Goniodysgenesis is inherited in several breeds and is tested for by a technique called **gonioscopy**. It was originally believed that the degree of goniodysgenesis did not progress after birth and so a 'one-off' test before breeding was advised for dogs of certified breeds. However, recent research has provided evidence of progression of goniodysgenesis with age in several breeds, namely the Flat Coated Retriever, Welsh Springer Spaniel, Dandie Dinmont Terrier, Basset Hound and Leonberger. In consequence, the advice on gonioscopy has been updated for all breeds in which gonioscopy is performed. It is now advised that gonioscopy should be carried out every 3 years, unless any evidence to the contrary emerges. The first test can be performed in dogs of 6 months or older.

Breeds currently certified for goniodysgenesis under the Eye Scheme are as follows:

- Basset Hound
- Japanese Shiba Inu
- Retriever (Flat Coated)
- Siberian Husky
- Spaniel (American Cocker)
- Spaniel (Cocker)
- Spaniel (English Springer)
- Spaniel (Welsh Springer)
- Spanish Water Dog

There are also several breeds where goniodysgenesis is *suspected of being inherited*, and these breeds are under investigation at present. The list is currently as follows:

- Border Collie
- Dandie Dinmont Terrier
- Great Dane
- Hungarian Vizsla
- Leonberger
- Retriever (Golden)
- Welsh Terrier

How do I go about having my dogs examined?

The examination for goniodysgenesis is called gonioscopy and can be conducted from 6 months of age. Performing gonioscopy requires certain expertise and specialised equipment and it is for these reasons that gonioscopic examinations are *not a routine part of the eye scheme and are not available from every member of the BVA/KC/ISDS eye panel*. A list of the BVA/KC/ISDS eye panellists is available from the British Veterinary Association or The Kennel Club. However, when telephoning a panellist to book an appointment, owners of the breeds listed above, who wish to have gonioscopy performed should check whether this is available.

How is gonioscopy performed?

Gonioscopy is generally performed without dilating the pupil. After application of anaesthetic drops to the eye, a special lens (goniolens) is placed on the surface of the cornea to enable the drainage angle to be examined. The test is then usually repeated on the other eye. Some dogs require sedation for the procedure to be carried out effectively. The fee for sedation is in addition to the cost of the test.

The panellist who performs gonioscopy on your dog should be able to answer any questions that you may have about the disease. There is a set procedure for appealing against the results of an eye examination should you wish to do so. Appeals must be lodged in writing with the BVA within 30 days of the examination.

What is the cost of the test?

Gonioscopy is treated as a separate examination, but the fee is reduced if gonioscopy is done at the same time as routine eye examination. If gonioscopy alone is performed it costs the same as a routine eye examination although, unlike the routine examination, there is no discount for testing multiple dogs. The scale of fees, as well as a detailed leaflet on all of the conditions covered by the BVA/KC/ISDS Eye Scheme, is available from either:

Canine Health Schemes
British Veterinary Association
7 Mansfield Street
London W1G 9NQ
Telephone: 020 7980 6380

The Kennel Club
Clarges Street
Piccadilly
London W1J 8AB
Telephone: 01296 318540