

PRESUMED INHERITED EYE DISEASES IN THE IRISH WOLFHOUND

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Various inherited, or presumed inherited diseases of the eye are known to affect over 160 dog breeds. Significance of these diseases to wellbeing of the dog and vision varies from minor to blinding and/or painful or otherwise debilitating problem.

Some of these diseases are known to be inherited. This knowledge has been gained through longterm eye examinations and pedigree analysis and/or genetic research. An eye disease is likewise presumed to be inherited, when

- it is reported in national or international (ECVO, ACVO) databases frequently (>1 % of the examined animals or min. 5 affected animals in 5 years or over 50 affected animals in total)
- the frequency is greater than in other breeds
- the frequency increases in a given breed as a whole
- the frequency is greater in related dogs within a breed
- the lesion has a characteristic appearance and location
- the lesion has a characteristic age of onset and course of progression
- the lesion looks identical to an entity which has been proven to be inherited in another breed.

ECVO (European College of Veterinary Ophthalmologists) gives dog owners and breeders advice about the significance of eye diseases to individual dogs and breeding. Animals affected by serious eye diseases causing visual deficits and/or pain and/or need for surgical treatment/continuous medication should not be used for breeding in order to decrease prevalence of these diseases.

Breeding advice given by ECVO are directly related to ocular health. When making breeding decisions with dogs affected by less serious eye diseases, other aspects, such as possible other diseases/defects within the breed, have to be considered.

For getting information about the prevalence and possibly mode of inheritance of ocular diseases, ECVO recommends eye scheme examinations as follows:

- breeding animals: every year
- other animals: 3-4 times in life, for example at 1, 3, 6 and 9 years.

INHERITED EYE DISEASES IN IRISH WOLFHOUSES IN FINLAND

2277 Irish Wolfhounds were registered in Finland between 1995 and 2012. During the same period, 469 eye scheme examinations were performed in the breed. The majority (56-100%) of the examined dogs were healthy. Others were found to be affected by various defects/diseases of the eyelids, third eyelid, cornea, iris, lens, vitreous, retina and optic nerve head.

Until the early 2000`s, the emphasis in the examination and registering of the findings was in serious, vision threatening defects such as cataracts and PRA.

Since then, findings in all ocular structures have been registered.

Diagnosis	Examined dogs - number (%)
Distichiasis and ectopic cilia	44 (9 %)
Oversized palpebral fissure (makroblefaron)	1
Outward rollig of the eyelid (ektropion)	1
Eversion of the third eyelid cartilage	4 (1 %)
Corneal dystrophy	1
Iris cysts *	24 (5 %) (7,4 %) **
Cataract ***	28 (6%)
- cortical cataract	6 (1,3 %)
- posterior polar cataract	15 (3,5%)
- other	7 (1,5 %)
Primary lens luxation (suspected)	1
PHTVL/PHPV	9 (1,9 %) ****
- diagnosis undetermined (grade not marked)	4
- aste 1	3
- aste 2	1
- aste 6	1
Vitreous degeneration	1
Retinal dysplasia (RD)	24 (5%)
- multifocal (MRD)	18 (4%)
- geografic (GRD)	6 (1,9 %)
Optic Nerve Hypoplasia/Micropapilla	6 (1,9 %)
Optic Nerve Coloboma	1

Presumed inherited eye diseases in the Irish Wolfhound are bolded.

Diseases significant for breeding are also highlighted.

* Affected, N.B. and descriptive comments in the ECVO form.

** Diagnosis between 2007 and 2012. 324 dogs were examined in that period.

Iris cysts were found in 7,4 % of them.

*** Affected and suspected

**** Affected and N.B.

Descriptions of the eye diseases affecting Irish Wolfhounds and their significance for breeding can be found in the ECVO Manual compiled by the ECVO Hereditary Eye Disease Committee (<http://www.ecvo.org/inherited-eye-diseases/ecvo-manual>).