


Continental miniature Spaniel (Papillon, Phalene)	
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Ocular disorders known or presumed to be inherited (published)

	Diagnosis	Description and comments specific to the breed	Inheritance	Gene/ marker test	References
A	Entropion	Inferior medial and/or lateral	Unknown	NO	1,3
B	Atresia of lacrimal punctum (Micropunctum)	Inferior	Unknown	NO	1
C	Distichiasis		Unknown	NO	1, 2
D	Persistent pupillary membrane (PPM)-Iris to iris		Unknown	NO	1, 2
E	Corneal dystrophy, 1. Stromal 2. Endothelial	1. Microcrystalline, 2 y.o. to 5 y.o. dogs 2. Dogs > 10 y.o.	Unknown	NO	1, 2
F	Cataract	1. Posterior cortical/subcapsular : 1,5 to 3 y.o. dogs 2. Nuclear: 2 to 8 y.o dogs	Unknown	NO	2, 3
G	Vitreous degeneration	Dogs > 6 y.o.	Unknown	NO	1

H	Progressive Retinal Atrophy (PRA)	First signs in dogs > 3 y.o., complete blindness 7-8 y.o.	Autosomal recessive	CNGB1	4,7
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The ECVO's advice relating to hereditary eye disease control

Please see ECVO Manual chapter 8: VET Advice

Recommendations regarding age and frequency for eye examinations

Please see ECVO Manual chapter 7: ECVO Age and Frequency recommendations

Other ocular disorders (reported)

	Diagnosis	Source
A	Micropapilla/ optic disc hypoplasia	ACVO genetics committee
B	Retinal dysplasia -folds	ACVO genetics committee

References

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2. Genetics Committee of the American College of Veterinary Ophthalmologists (2014) Ocular disorders presumed to be inherited in purebred dogs.
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4. HAKANSON N NARFSTRÖM K (1995) Progressive retinal atrophy in Papillon dogs in Sweden : a clinical Survey. Prog Vet Comp Ophthalmol 5 : 83-88.
5. NARFSTRÖM K EKESTEN B (1999) Disease of canine ocular fundus. In : Veterinary Ophthalmology. Third Edition (KN GELATT Edr) Lippincott Williams& Wilkins, Philadelphia, 869-933.

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7. Ahonen SJ, Arumilli M, Lohi H (2013) A CNGB1 frameshift mutation in Papillon and Phalene dogs with Progressive retinal Atrophy. *PLoS ONE* 8 (8): e 72122.