

Hip Dysplasia	<11% (c)	Complex	Radiographic, OFA, Cornell	None
Epilepsy	<5% (d)	Complex	Physical and neurological exam	None
Early Onset Adult Deafness (EOD)	Unknown	Recessive (e)	BAER test	None
Exercise-induced Border Collie Collapse (BCC)	Unknown	Complex	None, diagnosis by exclusion	None
Inerslund-Gräsbeck Syndrome (IGS)	Rare (<0.5%) (f)	Recessive	Physical exam and bloodwork	UCDavis, Animal Genetics, Paw Print Genetics
Trapped Neutrophil Syndrome (TNS)	Rare (<0.5%) (f)	Recessive	Bone marrow biopsy	Optigen, Animal Genetics, Paw Print Genetics
Neuronal Ceroid Lipofuscinosis (NCL)	Rare (<0.5%) (f)	Recessive	Physical and MRI exams	Optigen, Paw Print Genetics, Animal Genetics
Multi-Drug Resistance Gene (MDR1)	Rare (<0.5%) (f)	Recessive	None	Vet Clinical Pharmacology Lab at WA State U, Paw Print Genetics, Animal Genetics

- a) Estimated incidence rates are for affected dogs, carrier rates will be higher
- b) Exams are recommended before 12 weeks of age
- c) Hip dysplasia rates are from OFA data for all Border Collies (any registry) where radiographs were submitted from 1974 to 2014
- d) There are no published reports for incidence in Border Collies; incidence rates for breeds have been reported to range from 0.5% to 5% with Border Collies having one of the higher incidence rates
- e) Genetic studies by Dr Mark Neff suggest (not proven) recessive inheritance
- f) Based upon published study from Border Collies without distinction of registry or country