

Collie Eye Anomaly

Collie Eye Anomaly, also known as CEA, is an inherited disease causing defects in the formation of the eye. CEA has now been determined to be a genetic disorder.

Several forms of the disease are recognized, but the most common is a lesion on the back of the eye called choroidal hypoplasia (CH). All dogs affected by CEA have choroidal hypoplasia, by definition. CEA is not a progressive disease like prcd-PRA and most affected dogs may only have mildly impaired vision. More severely affected dogs may have pits (colobomas) affecting the retina and nearby tissues and in the most severely affected eyes, retinal hemorrhaging and detachments can occur, resulting in blindness.

Varying degrees of CEA and definitions are listed below:

- *Choroidal Hypoplasia, Chorioretinal Change, Choroidal Dysplasia:* These refer to abnormalities in the coloring or pigmentation of the choroid or central layer of the eye's lining. This is the most common abnormality found in CEA and all dogs with CEA have CH. However it is the least harmful and mildest form of CEA. Most dogs with this form function normally with no ill-effects or loss of vision.

Coloboma, Ectasia, Staphyloma: While not completely synonymous, these terms all refer to a cupping or bulging in the eyeball usually in the area of the optic nerve. Colobomas are the most common more serious complication of CEA. Colobomas can be described as a pit in the eye or a blister at the back of the eye that you can see with an ophthalmoscope. Colobomas vary and cr) animal can produce carrier offspring.