Canine Multifocal Retinopathy 1 (CMR1)

Canine multifocal retinopathy 1 is an inherited eye disease characterized by areas of retinal detachment. The disease does not typically lead to blindness or vision deficits.

Phenotype: Affected dogs typically present with multiple, discrete circular areas of retinal detachment between 11 and 16 weeks of age. Fluid accumulates under the detached retina resulting in gray, tan, orange or pink "blisters" in the eye. Progression of retinal changes is slow, ceases by 1 year, and does not lead to blindness.

Mode of Inheritance: Autosomal recessive

Alleles: N = Normal, **CMR1** = Canine multifocal retinopathy 1

Breeds appropriate for testing: American Bulldog, American Bully, Aussiedoodle, Australian Koolie, Australian Shepherd, Brazilian Terrier, Bulldog, Bullmastiff, Cane Corso, Dogue de Bordeaux, English Bulldog, English Mastiff, French Bulldog, Great Pyrenees, Havanese, Koolie, Mastiff, Miniature American Shepherd, Miniature Australian Shepherd, Olde English Bulldogge, Perro de Presa Canario, Shorty Bull, South African Boerboel, Toy Australian Shepherd

Explanation of Results:

- Dogs with **N/N** genotype will not have canine multifocal retinopathy 1 and cannot transmit this CMR1 variant to their offspring.
- Dogs with **N/CMR1** genotype will not have canine multifocal retinopathy 1, but are carriers. They will transmit this CMR1 variant to 50% of their offspring. Matings between two carriers are predicted to produce 25% canine multifocal retinopathy 1-affected puppies.
- Dogs with **CMR1/CMR1** genotype will develop canine multifocal retinopathy 1, an eye disease, and will transmit this variant to all of their offspring.

https://vgl.ucdavis.edu/test/cmr1