

Exercise Induced Collapse or EIC

The syndrome of exercise intolerance and collapse (EIC) is being observed with increasing frequency in young adult Labrador Retrievers. Most, but not all, affected dogs have been from field-trial breedings. Black, yellow and chocolate Labradors of both sexes are affected, with the distribution of colors and sexes closely reflecting the typical distribution in field trials (black males most common). Signs first become apparent in young dogs - usually between 5 months and 3 years of age (average 14 months). In dogs used for field trials, this usually coincides with the age at which they enter heavy training. Littermates and other related dogs are commonly affected but depending on their temperament and lifestyle they may or may not manifest symptoms. Affected dogs exhibiting symptoms of collapse are usually described as being extremely fit, muscular, prime athletic specimens of their breed with an excitable temperament and lots of drive. **DESCRIPTION OF COLLAPSE** Affected dogs can tolerate mild to moderate exercise, but 5 to 20 minutes of strenuous exercise with extreme excitement induces weakness and then collapse. Severely affected dogs may collapse whenever they are exercised to this extent - other dogs only exhibit collapse sporadically. All of the factors important in inducing an episode have not yet been well established. The first thing noted is usually a rocking or forced gait. The rear limbs then become weak and unable to support weight. Many affected dogs will continue to run while dragging their back legs. Some of the dogs appear to be uncoordinated, especially in the rear limbs, with a wide-based, long, loose stride rather than the short, stiff strides typically associated with muscle weakness. In some dogs the rear limb collapse progresses to forelimb weakness and occasionally to a total inability to move. Some dogs appear to have a loss of balance and may fall over, particularly as they recover from complete collapse. Most collapsed dogs are totally conscious and alert, still trying to run and retrieve but as many as 25% of affected dogs will appear stunned or disoriented during the episode.

CARRIERS- by definition, are dogs that have one copy of the mutation gene that they inherited from either their sire or their dam. They will have one normal copy of the gene that they received from their other parent. These dogs **DO NOT** have EIC and **WILL NOT** show signs of a collapse. They will pass the copy of their mutation gene to half of their puppies.

CLEAR- are dogs that do not have any copy of the mutation gene and do not carry EIC.

AFFECTED- dogs that have two copies of the mutation gene.

-Both of their parents are either affected or carriers of the mutation gene

-Affected dogs with EIC and most will show signs of exercise intolerance or collapse when participating in trigger activities with high levels of excitement or stress.

-A few genetically affected dogs that have copies of both alleles never show any signs of EIC.