

Australian Shepherd Health & Genetics Institute, Inc







Degenerative Myelopathy

Degenerative myelopathy (DM), sometimes called chronic degenerative radiculomyelopathy, is an autoimmune disease that arises late in life and attacks the myelin, the "insulation" on the nerves. Dogs with DM may exhibit progressive weakness and lack of coordination in the hind limbs leading ultimately to paralysis. There is no effective treatment; long term care is palliative. Euthanasia is required once the disease begins to impact breathing.

DM tends to be underdiagnosed in dogs, so ruling-out other potential causes of its symptoms is important. Diagnosis can be confirmed with a DNA test that detects a risk factor gene. Affected dogs will have two copies (not every dog that has two copies develops disease.) There is no effective treatment; long term care is palliative

DM is a type of autoimmune disease. Autoimmune diseases are genetically predisposed; if a dog has the disease, it has the genes but the DM test allows breeders to identify a major risk factor for this particular disease. So far as we know at this point, while every dog with two copies of the DM gene does develop spinal evidence of DM not all of them become ill. Fortunately for Aussies they do so only occasionally, indicating that there are other genetic factors that help protect them from this disease. Having the mutation should be considered a fault with two copies being a greater fault than one. Dogs that have this mutation should only be bred to clear-tested mates. Because different autoimmune disease frequently occur in the same family, it would also be wise to avoid mates with a recent family history of any kind of autoimmune disease.