AI Overview

DNA testing for Degenerative Myelopathy (DM) in dogs is a valuable tool for identifying dogs that are carriers of the genetic mutation associated with the disease, or that are at higher risk of developing it. The test, which analyzes a DNA sample (usually a cheek swab), can reveal whether a dog has two normal copies of the gene (clear), one normal and one mutated copy (carrier), or two mutated copies (at-risk). This information is crucial for breeders to make informed decisions about breeding pairs and for owners to understand their dog's potential health risks.

Understanding DM and Genetic Testing:

- **What is DM?**

  Degenerative Myelopathy is a progressive neurological disease affecting the spinal cord, causing weakness and paralysis in the hind limbs.

- **Genetic Basis:**

  DM is strongly linked to a mutation in the SOD1 gene.

- **DNA Testing:**

  Genetic testing identifies the presence of this mutation, allowing for proactive management and breeding strategies.

- **Test Results:**

- **Clear:** Possesses two normal copies of the gene, unlikely to develop DM and will not pass the mutated gene to offspring.
- **Carrier:** Possesses one normal and one mutated copy, may not develop DM but can pass the mutated gene to offspring.
- **At-risk (DM/DM):** Possesses two mutated copies, has a higher risk of developing DM, and will pass the mutated gene to all offspring.

- **Importance for Breeders:**

  Knowing a dog's DM status is vital for responsible breeding practices. Pairing two carriers can result in a 25% chance of producing offspring with two mutated copies, increasing the likelihood of DM.

- **Limitations:**

  While the test is highly accurate, some dogs with two mutated copies may not develop DM, and other factors can influence disease development.

How to Obtain a DM DNA Test:

- **Choose a reputable lab:** Several veterinary genetics laboratories offer DM DNA testing, such as Paw Print Genetics, Embark Dog DNA Test, and others.
- **Order the test:** Kits are typically available online or through your veterinarian.
- **Collect the sample:** Most tests utilize a cheek swab.
- **Submit the sample:** Follow the lab's instructions for sample return.
- **Receive and interpret results:** The lab will provide the results, and some offer assistance with interpretation.
  In summary, DNA testing for DM in dogs is a valuable tool for breeders and owners to assess disease risk and make informed decisions. While the test is highly accurate, it's essential to understand the limitations and consult with a veterinarian or genetic counselor for proper interpretation and guidance.

- Degenerative Myelopathy (DM) - Veterinary Genetics Laboratory

  Genetic testing for the SOD1 allele (c. 118G>A), reported by the VGL as DM, helps breeders establish the genetic status of breedin...

  Veterinary Genetics Laboratory

- Degenerative Myelopathy DNA Testing for Canine DM

  Degenerative Myelopathy DNA Testing is a fast and effective way of determining whether or not your dog has the potential to develo...

  AffinityDNA AU

- Degenerative Myelopathy (Common Variant) - Paw Print Genetics

  Degenerative myelopathy caused by Mutation of the SOD1 gene is an inherited neurologic disorder of dogs. ... Genetic testing of th...

  Paw Print Genetics

- Show all

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