

MINIATURE AMERICAN SHEPHERD HEALTH PANEL TEST REPORT

Provided Information: Name: KNOX Registration:	Case: NCD263458 Date Received: 16-Jan-2026 Report Issue Date: 28-Jan-2026 Report ID: 5226-6558-9909-2033 Verify report at vgl.ucdavis.edu/verify
DOB: 12/28/2024 Sex: Male Breed: Miniature American Shepherd Color: Red Tri	
Call Name: Knox	
Sire: RUSTY Reg: Microchip:	Dam: DALLY Reg: Microchip:

RESULT

INTERPRETATION

Collie Eye Anomaly (CEA)	N/N	Normal. No copies of the allele associated with collie eye anomaly (CEA) detected.
Degenerative Myelopathy (DM)	N/N	No copies of the DM mutation.
Hereditary Cataracts (HC)	N/N	No copies of HC mutation. Cataracts may however develop because of other genetic and environmental factors.
Hyperuricosuria (HUU)	N/N	No copies of the hyperuricosuria mutation detected. Dog is normal.
Multidrug Sensitivity (MDR1)	N/N	Normal. Dog does not have this variant associated with multidrug sensitivity.
Progressive Rod-Cone Degeneration (PRCD)	N/N	Normal. No copies of this progressive rod-cone degeneration (PRA-prcd) allele detected.
Canine Multifocal Retinopathy (CMR1)	N/N	Normal - no copies of the CMR1 mutation.
Chondrodystrophy (CDDY)	N/N	No copies of CDDY mutation.
Chondrodysplasia (CDPA)	N/N	No copies of CDPA mutation.



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Client/Owner/Agent Information: TAYLOR FLYNN 8123 96TH ST SE ELLENDALE, ND 58436	Case: NCD263458
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Name: KNOX	

Additional Information

If testing for a disease or a disorder was performed and results indicate the animal is affected or at risk, we recommend contacting your veterinarian for further clinical evaluation and for additional information on disease and management.

For more detailed information on Miniature American Shepherd Health Panel Test Report test results, please visit our website at: vgl.ucdavis.edu/panel/miniature-american-shepherd-panel

For terms and conditions of testing, please see vgl.ucdavis.edu/about/terms-and-conditions

Results are determined using PCR-based methods. The results relate only to the sample tested as identified by the submitter (for example, identity and/or breed).

Report authorized by Dr. Rebecca Bellone, VGL Director

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Degenerative Myelopathy is associated with a genetic variant in the *SOD1* gene (c.118G>A). We therefore denote this associated allele as DM on our reports.

Many dog breeds carry the *SOD1* allele associated with Degenerative Myelopathy. The following breeds have been reported as having **clinically-affected** individuals with two copies of the *SOD1* associated variant (denoted on our report as **DM/DM**): American Eskimo Dog, Australian Shepherd, Bernese Mountain Dog, Bloodhound, Borzoi, Boxer, Cardigan Welsh Corgi, Cavalier King Charles Spaniel, Chesapeake Bay Retriever, Czech Wolfhound, English Springer Spaniel, German Shepherd, Golden Retriever, Hovawart, Kerry Blue Terrier, Labrador Retriever, Pembroke Welsh Corgi, Pug, Rhodesian Ridgeback, Rough Collie, Soft Coated Wheaten Terrier, Standard Poodle, and Wire Fox Terrier. Testing is advisable for these breeds.

There have also been reports of crossbred dogs with two copies of the *SOD1* allele that were clinically affected by degenerative myelopathy.

What do the results mean for my dog?

Within clinically-affected breeds, dogs with two copies of DM (**DM/DM**) are considered at higher risk for developing clinical signs of DM. However, not all dogs that are DM/DM will develop clinical signs of disease, and not all cases of degenerative myelopathy are explained by the DM/DM result.

Why some DM/DM dogs display symptoms of disease and others do not, is not yet known, but one hypothesis is that there are other genetic modifiers that contribute to risk. This is still under investigation.

Dogs with one copy of DM (**N/DM**) are not expected to develop clinical signs of degenerative myelopathy. They are considered carriers, because they carry the allele associated with disease.

Dogs with **N/N** genotype do not have this *SOD1* variant associated with degenerative myelopathy.

Please note that there may be other causes for degenerative myelopathy in the dog that are not explained by the *SOD1* variant (c.118G>A) tested by the VGL.

What about breeding my dog?

Dogs with a DM/DM genotype will pass on the DM allele to all of their offspring.

Dogs with an N/DM genotype may pass on the DM allele to ~50% of their offspring. If bred to another N/DM dog, 25% of puppies will be expected to have a DM/DM genotype and be at increased risk for developing DM.

For more detailed information about DM, visit <https://vgl.ucdavis.edu/test/degenerative-myelopathy>