

Unraveling the Genetic Basis of Canine Cervical Spondylomyelopathy (wobbler syndrome)

The primary goal of this study is to identify genes or genomic areas that may be associated with cervical spondylomyelopathy (CSM). The second goal is to identify breed-specific genetic variations and potential mutations that may contribute to CSM. Dogs will undergo a neurological examination (when possible) or have a 1–2-minute video of their gait submitted for evaluation when a neurological examination is not possible. Dogs will have blood or cheek swab sample collected and submitted for DNA analysis.

An example of a gait video can be found at, go.osu.edu/doggaitdemonstration

Client Compensation:

Costs of mailing saliva samples will be covered by the study. For dogs enrolled during a visit to OSU, the full cost of the neurological examination and blood collection (if applicable) will be covered by the study.

Potential Medical Benefits: We will be collecting saliva samples or blood samples (when applicable). Results of this study will not be available immediately. The goal is to identify a genetic basis for the disease that may benefit future patients.

Potential Medical Risks: Risks associated with this project are minor. Cheek swabs have no reported significant risks. Blood collection may lead to local hematoma in the collection site. If blood is drawn, dogs will be observed closely for side effects and appropriate medical care will be provided.

What qualifies my pet for enrollment?

Inclusion Criteria:

Eligible dogs must meet the following criteria:

- Dogs must be purebred (an AKC registration is appreciated, but not required), belonging to one of the following breeds: Great Dane, Doberman Pinscher, Bernese Mountain Dog, and Weimaraner.
- Normal dogs: must be 2 years of age or older and must not have other neurological diseases or any neurologic changes on previous examinations.
- Dogs with wobbler syndrome (without MRI or CT confirmation): presenting ataxia (wobbly gait) and weakness for over 3 months.
- Dogs with confirmed diagnosis of wobbler syndrome via CT or MRI: must have the CT and/or MRI or the radiology report available for review.
- All affected dogs must have neurologic exam records available for review.

Exclusion Criteria:

Dogs are not eligible to participate if:

- Dogs are not eligible if they are a mix between two or more breeds.
- For dogs without wobbler syndrome, dogs cannot be enrolled if they are younger than 2 years of age, if they have other neurologic disease, or if any neurologic abnormality was previously noted by a veterinarian.
- For dogs with suspected wobbler syndrome (not confirmed with MRI or CT), they cannot be enrolled if neurologic signs have been observed for less than 3 months, or if signs do not include ataxia and weakness. Dogs will not be enrolled if only presenting neck pain.

Diagnosis/Condition Being Studied: Wobbler Syndrome (cervical spondylomyelopathy)

Intervention to Be Studied: Aims to genetically map large-effect risk markers (haplotypes) and variations

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If you believe your pet may be eligible for this study, please fill out a pre-screening questionnaire.



**Pre-Screen
HERE**

