

Canine Dysautonomia Fact Sheet

What is canine dysautonomia?

Canine dysautonomia (CD) is a sporadic, generally fatal disease of dogs. It is due to degeneration of nerve cells controlling subconscious bodily functions. These include control of normal swallowing and motility of the digestive tract, heart function, control of urination, and pupils of the eye. The cause of CD is unknown at this time.

Where does the disease occur?

At this time, CD is geographically isolated to distinct areas of the Midwest, and the eastern half of Wyoming. It is well documented in western MO, eastern KS, southern IL-western KY, and eastern NE (Lincoln area). It is also seen outside the United States, particularly in Europe.

Are specific breeds affected?

No – all breeds appear equally susceptible.

Is this a new disease?

The disease was first reported in the United Kingdom in the 1980s. The disease was first diagnosed in the United States in a dog from Wyoming in the 1990s.

What factors are associated with affected animals?

CD mainly affects younger dogs with a median age of 14-18 months. Affected animals are more commonly outdoor dogs on agricultural property with access to livestock and/or wildlife. Exposure to and/or consumption of disturbed soil is commonly reported. Multiple cases from single properties have been reported.

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Is the disease transmissible to people?

No. There are rare, unrelated dysautonomia syndromes in people that cause some of the symptoms seen in CD; some of these are relatively mild and may regress.

Is the disease transmissible to other dogs?

At this time we think not. Disease clusters affecting two or more dogs have occurred on the same property. This is assumed to be due to some common risk factor, rather than direct dog-to-dog spread of an infectious agent.

What clinical signs are associated with the disease?

While vomiting is common in dogs, severe intractable vomiting lasting days to weeks, with other consistent signs, point veterinarians toward a diagnosis of CD. In addition to vomiting, straining or difficulty urinating/defecating, protrusion of the 3rd eyelid and dilated pupils are consistent with CD. Later in the disease course, incoordination of the hind limbs can occur due to degeneration of motor nerve cells in the spine.

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How is the disease confirmed?

Diagnosis on live dogs is done on the basis of the range of typical clinical signs, and an in-clinic test of pupillary function (to see whether the dilated pupils can be induced to constrict). The disease can be confirmed after a dog is put to sleep by a post-mortem examination (autopsy) with microscopic assessment of the nervous system.

What is the outcome for affected dogs?

Most affected dogs are euthanized after a short clinical course (1 – 2 weeks), due to the grim prognosis. A small proportion of dogs (<10%) may survive the acute phase and survive with some neurological impairment.

What is UW doing to determine the cause of this disease?

Diagnosticians at the Wyoming State Veterinary Laboratory are actively looking for cases of CD to help determine the cause of the disease. Researchers will verify the disease by taking tissues from dog after they are put to sleep. Additionally, UW has developed a bank of frozen blood and tissue samples that will be used to test for an underlying cause. We are banking soil from premises affected by CD.

Where can I go for more information?

Researchers at UW have developed a survey that they are requesting owners fill out:

<https://docs.google.com/spreadsheets/viewform?formkey=dFdweENUbDBWWFpFYXpEcUZ3MUxnNnc6MQ#gid=0>

You may contact Dr. Brant Schumaker, for more information:

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