

Chronic Wasting Disease

► Chronic wasting disease (CWD) is a serious illness affecting deer, moose, and caribou. It causes degeneration of brain cells and, eventually, death.

What is chronic wasting disease?

Chronic wasting disease is a neurodegenerative disease that affects cervids such as white-tailed deer, mule deer, elk, moose, and caribou. CWD is a transmissible spongiform encephalopathy (TSE) similar to scrapie in sheep and goats, bovine spongiform encephalopathy (mad cow disease) in cattle, and Creutzfeldt-Jakob disease in humans.

What causes CWD ?

CWD is caused by a misfolded prion, which is an abnormal form of a normal protein commonly found in the central nervous system. The prion infects the host animal and causes normal proteins to turn into the abnormal form causing degeneration of brain cells.

Where is CWD currently found?

In 1967, CWD was first discovered in mule deer in a research facility in Colorado. CWD can now be found in several captive and free-ranging deer in many states and Canadian provinces (figure 1).

How is CWD transmitted and spread?

CWD prions are transmitted from animal to animal through contact with bodily fluids (e.g., saliva, blood, urine, feces) or tissue (e.g., antler velvet, carcasses, gut piles) of an infected animal. Unlike bacteria and viruses, CWD prions may remain infectious in the open environment for many years. As such, transmission from the environment is also possible. CWD can spread across the landscape through natural movement of deer. The spread of CWD, however, has been accelerated by the transport of infected animals and body parts by humans, a practice now illegal in most states.

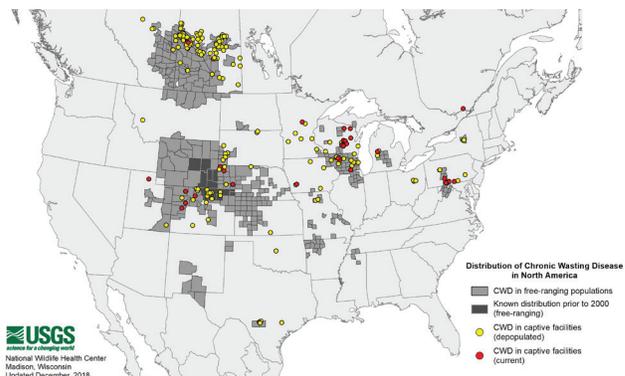


Figure 1. Known cases of chronic wasting disease in North America. Map produced by the United States Geological Survey, National Wildlife Health Center, December 2018. (Credit: Bryan Richards, USGS, National Wildlife Health Center)

What are the symptoms?

CWD is most commonly detected in adult deer, but all ages are susceptible. Common symptoms include weight loss over time and emaciation, lack of wariness, difficulty moving or standing, lowering of the head, tremors, listlessness, and excessive salivation and urination.

Is CWD always fatal?

Yes. The disease is progressive (continually getting worse over time) and always fatal.

How do you determine if a deer has CWD?

The only way to determine if a deer has CWD is through a postmortem examination. Tissue samples from the brain stem and lymph nodes from the throat are collected and sent to a lab for analyses. There is currently no USDA-approved live animal test for CWD, and there is no treatment or vaccine for CWD.

Is there any treatment or cure for CWD?

No. There is no treatment or cure for CWD.

Can humans get CWD?

There is no known case of CWD in humans.

Can I eat meat from a deer that has CWD?

Although CWD has not been shown to be transmissible to humans, the Centers for Disease Control and Prevention recommends that humans NOT consume meat from CWD-positive deer.

What can I do to prevent the spread of CWD?

First, follow the law. The Alabama Division of Wildlife and Freshwater Fisheries has established laws regarding the movement of deer carcasses and body parts into Alabama to help prevent the spread of CWD. Specifically, the importation of whole carcasses and certain body parts of any deer (all cervids) from outside Alabama is strictly prohibited.

Importing the following is allowed:

- deer meat that has been completely deboned
- cleaned skull plates with attached antlers, if no visible brain or spinal cord tissue is present.
- raw capes, if no visible brain or spinal cord tissue is present
- upper canine teeth, if no root structure or other soft tissue is present
- finished taxidermy products or tanned hides

The importation of velvet-covered antlers is prohibited unless they are part of a finished taxidermy product.

Second, assist in monitoring. Although CWD has not been found in Alabama as of January 2019, it has recently been found in the neighboring states of Mississippi and Tennessee. The Alabama Division of Wildlife and Freshwater Fisheries has voluntary check stations to collect brain stem and lymph node samples to monitor CWD. You can also report a deer that appears to be sick or diseased by calling your regional Wildlife and Freshwater Fisheries Division office or by submitting a sick deer report online at <https://www.outdooralabama.com/wildlife-related-diseases/report-sick-deer>. Visit www.outdooralabama.com for more information about CWD and learn how you can assist the Alabama Division of Wildlife and Freshwater Fisheries in preventing the disease in Alabama.

Third, report any transport of live deer, elk, or other cervids on Alabama's roads and highways by calling Operation Game Watch at (800) 272-4263.

Fourth, keep up to date on laws and regulations. As CWD continues to spread across surrounding states and the Southeast, laws and regulations will continually change to meet the challenges of containing the disease. It will be important to keep up to date on these changes.



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For more information, contact your county Extension office. Visit www.aces.edu/directory.

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New January 2019, ANR-2531

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