

Chronic Wasting Disease (CWD)

A Guide for Iowa's Hunters

Iowa Department of Natural Resources



This buck was harvested in the Wayne County CWD-endemic region. While it appeared perfectly healthy at the time of harvest, the buck tested positive for CWD.



CHRONIC WASTING DISEASE BASIC FACTS

Chronic wasting disease (CWD) is a fatal disease that impacts members of the Cervidae, or deer, family including deer, moose, elk, mule deer, and caribou. In Iowa, CWD has been detected in wild and captive white-tailed deer, with the first wild detection in Allamakee County in 2013.

The infectious agent that causes CWD is a prion, which is a misfolded form of a naturally occurring protein. Prions accumulate in and damage neural and lymphatic tissues, impacting the neurological function of diseased animals. Infectious prions can be found throughout the body, including muscle tissue, but areas such as the brain, spinal cord, and lymph nodes contain higher concentrations of prions.

CWD can spread from deer to deer through direct contact and indirectly through an environment contaminated with infectious prions. Infected deer can shed prions in bodily fluids and waste, including saliva, urine, feces, and blood. Prions can persist in the environment for extended periods of time, allowing areas contaminated by infected deer to remain a potential source of exposure for other deer. Because environmental transmission can occur even at lower deer densities, reducing deer density is unlikely to eliminate CWD from an infected wild deer population.

For most deer, clinical signs do not begin to show in the animal until 18 to 36 months (1.5 to 3 years) after infection. In other words, a deer could be infected with CWD and appear perfectly healthy for 18 to 36 months after initial exposure. As the disease progresses, infected deer may exhibit weight loss, decreased coordination, abnormal behavior, excessive salivation, and difficulty swallowing. Testing is the only way to confirm that a deer has CWD.

There is currently no vaccine, treatment, or cure for CWD. Once a deer is infected, the disease is ultimately fatal, though infected deer often die of other causes first. Once CWD becomes established in a free-ranging deer population, eliminating the disease from that population is extremely difficult.

In Iowa, CWD response focuses on maintaining balanced deer populations, monitoring disease occurrence, and minimizing impacts to deer populations and hunting opportunities. Research and management efforts across North America have shown that eliminating CWD from established wild deer populations has not been achieved through harvest-based management. Long-term disease outcomes can vary depending on local conditions, deer populations, and management strategies.

Recent studies are indicating a genetic component to CWD susceptibility and disease progression in wild deer. Variations in the deer's PRNP gene have been associated with differences in susceptibility to infection and the rate at which the disease progresses. Some genetic variants appear to be associated with slower disease progression and longer survival following infection. However, no known genetic variant makes a deer completely immune to CWD. Researchers continue to study how genetics may influence the long-term effects of CWD on individual deer and wild deer populations.

CHRONIC WASTING DISEASE TESTING AND SURVEILLANCE

Although CWD was not detected in Iowa until 2013, the Iowa DNR has been monitoring for the disease since 2002. A dynamic sampling quota system is used statewide to detect the disease in new areas and monitor its prevalence and distribution once it is discovered.

The DNR's surveillance program relies on tissue samples collected from hunter-harvested, road-killed, and sick deer to monitor the prevalence and spread of CWD in Iowa. The DNR collects the medial retropharyngeal lymph nodes for testing. These lymph nodes are located in the neck, just behind the jaw, and collecting them requires a cut to the neck. Hunters who intend to have their deer mounted can work with their taxidermist to collect a sample or preserve the head for sampling.

There are currently two ways to submit tissue samples for CWD testing in Iowa:

1. DNR Surveillance Program

Hunters can contact local DNR wildlife staff to submit a sample through the DNR's statewide surveillance program. The DNR also provides freezers in some areas where deer heads can be dropped off at any time for sample collection. Deer heads should have a minimum of 2 inches of neck tissue below the bottom jaw to ensure the lymph nodes are present for collection.

Forms are provided at the freezer for hunters to provide information including the hunter's name and contact information, tag registration number, and the location where the deer was harvested. Sampling quotas are allocated by county.

This option is available for deer at least 18 months old and is free of charge to the hunter.

2. Hunter Submission Pathway

The Hunter Submission Pathway is available for deer that do not meet the minimum age requirement for the DNR surveillance program, when sampling quotas have been met in the county where the deer was harvested, or when hunters would like expedited test results.

Through a partnership with the Iowa State University Veterinary Diagnostic Laboratory, hunters can submit samples for CWD testing year-round for any cervid. The hunter is responsible for a \$25 laboratory fee for diagnostic testing.

Iowa State University Resources Video demonstrating lymph node collection:

<https://youtu.be/DS1GcDHotsI>

Iowa State University Veterinary Diagnostic Laboratory sample submission:

<https://vdl.iastate.edu/portal/Submission/CWD>

BEST MANAGEMENT PRACTICES FOR CARCASS DISPOSAL AND MOVEMENT

Proper carcass disposal is an important part of CWD management. CWD-positive carcasses and carcass parts can serve as sources of infectious prions on the landscape and may contribute to disease transmission if they are moved to new areas.

Deer can potentially be exposed to CWD through contact with infected carcasses or contaminated environments. Although there is currently no evidence that scavengers such as coyotes become infected with CWD, scavengers can move carcasses and carcass parts across the landscape, potentially spreading infectious material to areas where CWD has not previously been detected.

Disposal through an accepting landfill or other approved trash service is an effective option. If that option is not available, hunters should leave carcass waste as close to the harvest site as possible to minimize the potential for transporting CWD to new areas.

Recommended Carcass Disposal Options

1. **Dispose of carcasses through an accepting landfill or other approved trash service.**
2. **Leave carcass waste at or near the harvest site.** This is particularly important when hunting in an area where CWD has been detected and returning to an area where CWD has not yet been detected. Leaving carcass waste near the harvest site reduces the risk of transporting infectious material to new areas.

Hunters are responsible for understanding state regulations regarding the transportation of wild game carcasses and carcass parts from areas where CWD has been detected.

Iowa restricts the importation of certain deer, elk, moose, and caribou carcasses and carcass parts from areas where CWD has been detected. Hunters traveling to Iowa from CWD-affected areas should check current Iowa regulations before transporting harvested animals across state lines.

Under current Iowa regulations, allowable items from CWD-affected areas include:

1. **Boned-out meat**
2. **Antlers or skull**, though skulls must contain clean skull plate with all brain and connective tissue removed
3. **Cleaned hides and capes**

Similar practices are encouraged when transporting deer within Iowa. Reducing the movement of carcasses and high-risk carcass parts across the landscape can help minimize the potential for introducing CWD into new areas.

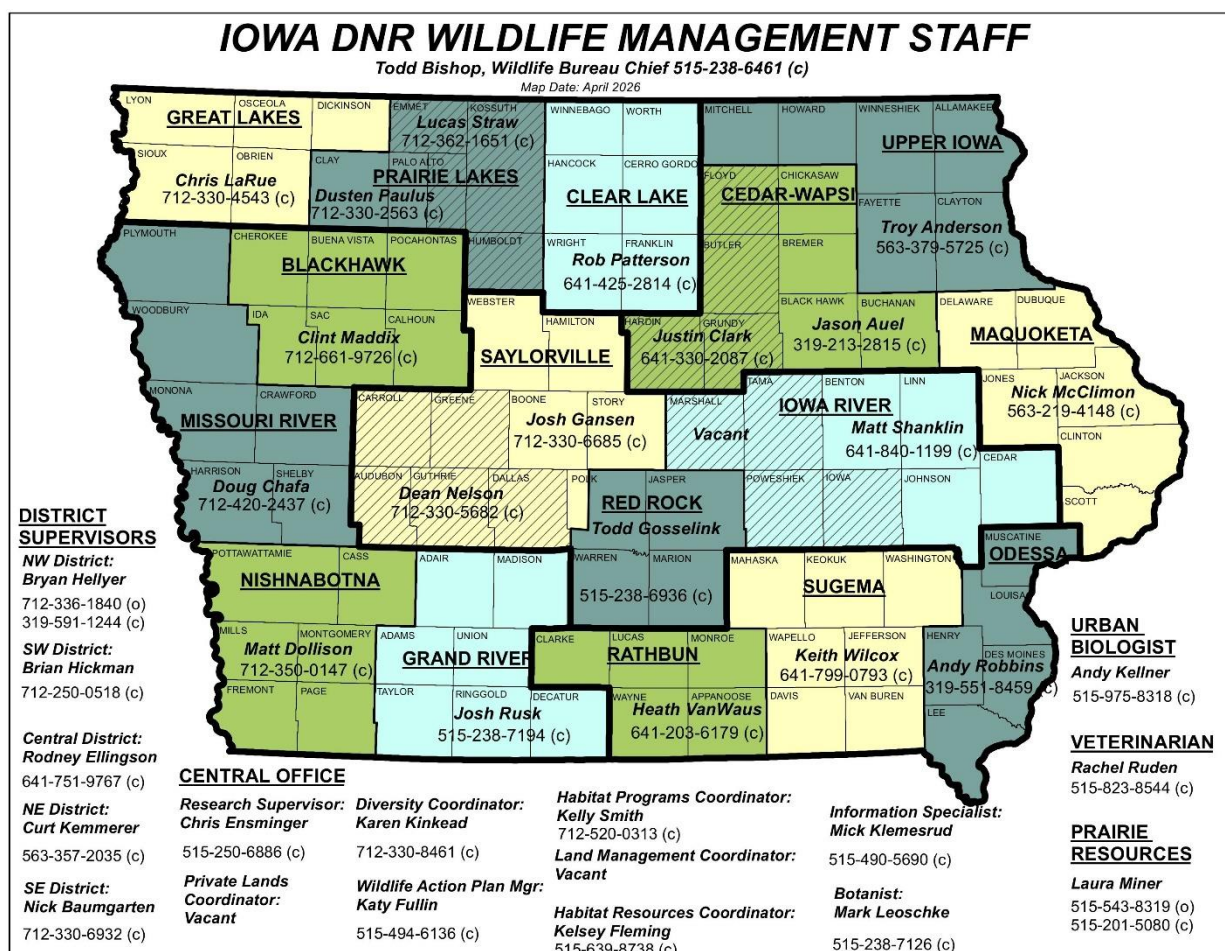
Before hunting, use resources such as the Iowa DNR's CWD Surveillance Dashboard and current hunting regulations to determine whether CWD has been detected in the area you plan to hunt. Hunters should develop a carcass disposal plan before entering the field and understand any restrictions that may apply to transporting deer or deer parts from the area.

RESOURCES FOR ADDITIONAL INFORMATION

Iowa DNR CWD webpage: <http://www.iowadnr.gov/cwd>



To facilitate CWD testing, please reach out to your local wildlife unit biologist:



Disclaimer: The Iowa Department of Natural Resources is not a human health organization and does not provide advice regarding meat consumption. While there is currently no known evidence that CWD can be transmitted to humans, the Centers for Disease Control and Prevention (CDC) provides guidance and the most current information on CWD and human health here:

<https://www.cdc.gov/chronic-wasting/about/index.html>