

Chronic Wasting Disease A Guide for Iowa's Hunters



This buck was harvested within the Wayne County Deer Management Zone and while it appears healthy, it tested positive for chronic wasting disease. The Iowa DNR is committed to fighting the spread of this 100% fatal disease. Harvesting infected deer is the best way to slow the spread. Infected deer do not display signs of disease until 18 to 36 months after infection, and testing is the only way to know if a deer is infected.

Chronic Wasting Disease Basics

Chronic wasting disease (CWD) is a 100% 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 naturally occurring prion, which is a misfolded protein. Prions accumulate in and damage neural and lymphatic tissues, impacting the neurological function of diseased animals. Infectious prions can be found throughout the entire body, including muscle tissue, but areas such as the brain, spinal cord, and lymph nodes contain higher concentrations of prions. 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. Prior to displaying clinical signs, infected animals shed infectious prions in bodily fluids including blood, urine, saliva, and feces. Testing is the only way to confirm that a deer has CWD.

Partnering to Fight Chronic Wasting Disease

Establishing and maintaining relationships with stakeholders is necessary for effectively managing CWD in Iowa. The Iowa Department of Natural Resources (DNR) relies on hunter and landowner relationships to grant access for CWD surveillance and management through sick animal reports, harvest, and tissue sample collection. The DNR uses outreach and educational events to distribute CWD information to build and foster working relationships with our constituents. Together, we can work to preserve the white-tailed deer hunting tradition in Iowa through CWD surveillance and management.

What's Being Done

CWD Testing:

Although not discovered in Iowa until 2013, the Iowa DNR has been monitoring for the disease since 2002. A dynamic sample quota system has been used statewide to detect the disease in new areas, then monitor the disease once discovered.

The DNR's surveillance program relies on the submission of tissue samples from hunter-harvested, road-kill, and sick deer to monitor the prevalence and spread of CWD in Iowa. The DNR removes the medial retropharyngeal lymph nodes to test for the disease, which require a cut to the neck right behind the jaw. If you intend to mount your harvest, you can work with your taxidermist to pull a sample.

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

- The **first option** is to contact local DNR wildlife staff to submit a sample to the DNR's statewide surveillance program. Additionally, the DNR offers freezers in some areas where deer heads can be dropped off at any time for sample submission. Deer heads should have a minimum of 2" 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 fill out with the hunter information, tag registration number, and location where the deer was harvested. Sample quotas are allocated for each county and Deer Management Zone (DMZ). This option requires the deer to be a minimum of 1-½ years of age and is free of charge to the hunter.
- The **second option**, known as the Hunter Submission Pathway, is available for deer that do not meet minimum age requirements, when sampling quotas are met in the county or DMZ where the deer was harvested, or when hunters would like expedited results. The DNR has a partnership with the Iowa State University Veterinary Diagnostic Laboratory for sample submission that can be used year-round for any cervid. A \$25 fee is paid by the hunter for the laboratory to run the diagnostic testing.

The Centers for Disease Control and Prevention (CDC) recommend when hunting in areas where CWD has been detected, to strongly consider having the deer tested. If the animal does test positive, the CDC recommends the meat not be consumed. For further recommendations, refer to the website provided for the CDC on the reference page in the back of this booklet.

Deer Management Zones (see QR on right):

When CWD is detected in an area, a Deer Management Zone (DMZ) may be established to meet management and surveillance goals. DMZs are designed to encompass the core of CWD detections (“hot spot”) and areas expected to be impacted by CWD, providing a focal area for additional management efforts and surveillance. Since this disease is primarily transmitted through deer-to-deer contact, reducing deer densities can be an effective way to minimize disease transmission. Additional antlerless hunting opportunities may be offered within DMZs that are determined to exceed population management objectives. DMZ tags are allocated for use within their established boundary and are in addition to regular county-specific antlerless tags. DMZ tags can be purchased for any of the regular hunting seasons and are bonus tags, providing hunters an opportunity to spend more time in the field. DMZ tags may be purchased at licensed vendors. Please scan the QR to be directed to the [Deer Management Zones: Chronic Wasting Disease](#) webpage for more information.



DMZs typically have higher sample quotas to allow the DNR to better estimate CWD prevalence and spread within the zone. Hunters who harvest deer within DMZ areas are encouraged to submit samples for CWD testing by contacting their local wildlife biologist to coordinate sample collection or drop off the deer head at a freezer location.

CWD Incentive Zones (see QR on right):

Within some DMZ's exist smaller [CWD Incentive Zones](#). The goal of incentive zones is to increase localized harvest in areas with high densities of CWD detections in an effort to increase the removal of diseased animals from the landscape. Within the CWD Incentive Zones, a special hunting season occurs in January where individuals can earn the ability to purchase an additional any-sex tag for the hunting season of their choice the following year. To earn this additional any-sex tag, hunters must first register to hunt within the designated area during the January season, then harvest three female deer. Once at least three female deer have been harvested, they must then be checked by local DNR staff for tissue sample collection in order to qualify for the any-sex incentive tag. These hunts have been successful in removing CWD-positive deer that may have otherwise continued to spread the disease.



Processing and Handling - Best Management Practices

Venison processing and carcass disposal are two important aspects of CWD management. To help reduce CWD movement in Iowa, have a processing and carcass disposal plan in place before hunting season. Due to the resistant nature of prions, proper cleaning and disinfection procedures are recommended to minimize cross-contamination between deer and other food resources in your home.

Best Management Practices to Process Venison

1. Wear latex or rubber gloves while field dressing and processing deer.
2. Dedicate knives and tools strictly for processing venison.
3. Process and package each deer individually to avoid cross-contamination.
4. Use a clear labeling system keeping all venison from each individual animal separate and organized while waiting for sample results.
5. Avoid cutting through the brain and spinal cord.
 - a. These tissues can have high concentrations of the infectious agent - the misfolded prions.
 - b. If these must be severed, have dedicated tools for doing so and use recommended disposal practices below.
Avoid using the same tools for cutting meat.
6. Clean tools and surfaces thoroughly, removing all tissue and organic matter before disinfecting. Disinfect tools with a 40% bleach solution for 5 minutes if possible.

Best Management Practices to Clean Equipment and Surfaces

Proper cleaning of tools and equipment after processing a deer is of utmost importance. The infectious prions that cause CWD are highly resistant, meaning additional time should be taken to ensure processing materials are thoroughly cleaned and disinfected. Recent studies have demonstrated alkaline agents are more effective versus acidic or neutral

agents for cleaning. Below are steps designed to minimize risk of contamination and reduce the infectivity of prions - making them less likely to cause disease.

1. **Remove** all organic matter off tools and equipment
 - a. Disinfectants are ineffective at penetrating tissue or other solids. Any organic matter remaining on tools and equipment can harbor prions that could transfer to other surfaces
2. **Clean** tools and equipment with detergent*
 - a. This can be done with alkaline detergents as referenced above **OR** by using soap and water
 - i. Commercial dish detergent and water cleans equipment and surfaces, but does not deactivate prions
3. **Disinfect** with 40% bleach solution for 5 minutes. Research has shown this will deactivate most prions on surfaces.
 - a. Research suggests soaking tools and equipment in a solution containing 2 parts bleach and 3 parts water reduces the infectivity of prions

*For more information, see AWFA Best Management Practices for Surveillance, Management, and Control of CWD in Additional Resources

Best Management Practices for Carcass Disposal

CWD-positive carcasses can become sources of disease transmission on the landscape if not properly disposed. Thus, carcass management is important to disease management. Though deer can contract CWD from direct contact with infected carcasses, current research suggests that scavengers, such as coyotes, cannot. However, they can move those carcasses around the environment, potentially exposing deer in new areas. Burying carcasses when possible creates a barrier between the potentially infected carcasses and other deer or scavengers in the area. **If available, landfilling or disposing through your local trash service is ideal. Otherwise, it is best to leave carcass waste as close to the harvest site as possible to prevent the disease from spreading to new areas.**

Recommend Carcass Disposal Options

1. Bury or dispose of carcasses in accepting landfills or other trash services
2. Leave carcass at the harvest site
 - a. This option is *especially* important if you hunt in a county with CWD and return to a county where CWD has yet to be detected.

Carcass Movement:

It is every person's responsibility to understand the state regulations regarding the transportation of wild game parts from areas where CWD has been detected. It is illegal to import deer, elk, moose, or caribou from CWD-affected areas in other states, this includes free-ranging and captive animals.

The only items allowed to be brought into Iowa from out-of-state areas with CWD detections are:

- Boned-out meat
- Antlers (may be attached to a clean skull plate with brain and connective tissue removed)
- Clean cape

These same practices are encouraged when hunting in-state. Reducing carcass transport on the landscape minimizes the potential for introducing CWD into new areas. Before going out into the field, use resources such as the DNR's CWD Surveillance Dashboard or other state wildlife agency websites to determine if the area you will be hunting has any CWD detections. Form a plan for carcass disposal and storage according to the region. Getting your deer sampled for CWD is highly encouraged. This allows for a better understanding of disease prevalence in the area and helps all Iowans make informed consumption decisions regarding their venison.

Resources for Additional Information

Iowa DNR Resources

Chronic wasting disease interactive dashboard and test results page:

<http://www.iowadnr.gov/cwdresults>



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



Iowa Deer Management Zone map database:

<https://www.iowadnr.gov/Hunting/Deer-Hunting/Deer-Health/Chronic-Wasting-Disease/CWD-Deer-Management-Zones>



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>.

Other Recommended Resources

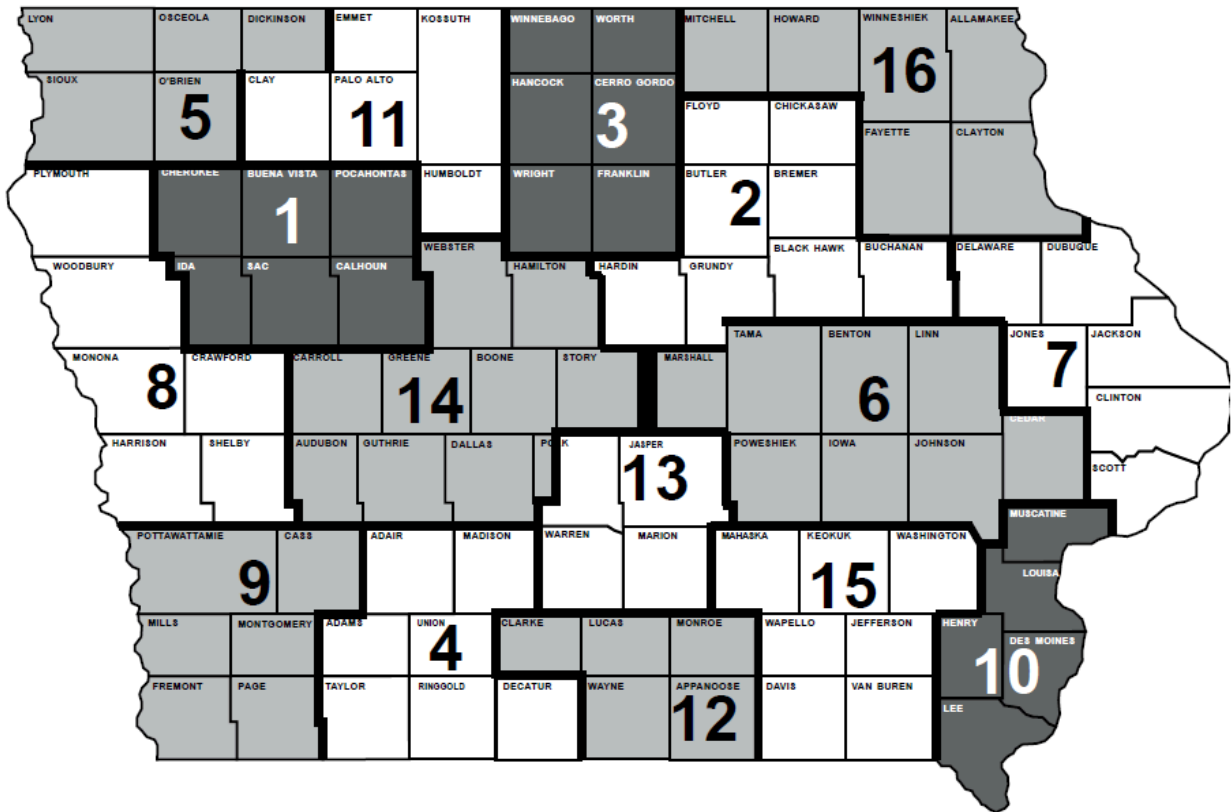
Center for Disease Control and Prevention information regarding chronic wasting disease:

www.cdc.gov/prions/cwd/index.html

AWFA Best Management Practices for Surveillance, Management, and Control of CWD:

www.fishwildlife.org/application/files/9615/3729/1513/AFWA_Technical_Report_on_CWD_BMPs_FINAL.pdf

Wildlife Management Biologists



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|------------------------|--------------|------------------------|--------------|
| 1. Black Hawk Unit | 712-661-9726 | 9. Nishnabotna Unit | 712-350-0147 |
| 2. Cedar-Wapsi Unit | 319-213-2815 | 10. Odessa Unit | 319-551-8459 |
| 3. Clear Lake Unit | 712-330-2563 | 11. Prairie Lakes Unit | 712-362-1651 |
| 4. Grand River Unit | 515-238-5708 | 12. Rathbun Unit | 641-203-6179 |
| 5. Great Lakes Unit | 712-330-4543 | 13. Red Rock Unit | 515-238-6936 |
| 6. Iowa River Unit | 641-751-9767 | 14. Saylorville Unit | 712-330-6685 |
| 7. Maquoketa Unit | 563-219-4148 | 15. Sugema Unit | 641-799-0793 |
| 8. Missouri River Unit | 712-420-2437 | 16. Upper Iowa Unit | 563-379-5725 |

Wildlife Depredation Staff

One of the DNR's responsibilities is to provide private landowners with guidance and assistance they need to effectively deal with wildlife damage. For questions concerning wildlife damage to your property, contact your local depredation biologist.

Depredation Biologist Contact Information

www.iowadnr.gov/hunting/landowner-assistance/wildlife-damage-management

