

a carcass, will remove most, if not all, of these body parts. Cutting away all fatty tissue will remove remaining lymph nodes.)

- Bone out the meat from the animal.
- Thoroughly wash hands, knives and other tools used to field dress the animal.
- Request that your venison is processed separately from other deer.
- Bones and offal should be disposed of through burial, landfill or incineration if possible.

What should you do if you see a deer or elk that looks sick, emaciated or lethargic?

Note the location and as much information as possible about the animal and situation. Call the North Dakota Game and Fish Department at 701-328-6300. Arrangements will be made to investigate the report.

What is the North Dakota Game and Fish Department doing about CWD?

The Department has worked cooperatively with hunters to increase surveillance to detect presence or absence of CWD in North Dakota.

Game and Fish conducts targeted surveillance throughout the state, which entails recognition, collection and submission of samples from wild deer, elk and moose that are suspect or showing signs consistent with CWD. Approximately 35,000 animals have been tested for CWD since the start of the targeted surveillance program in 1996. Beginning in fall 2002, the Game and Fish Department started sampling hunter-harvested deer in selected management units across the state to detect the prevalence of CWD. This is an ongoing monitoring program to track disease trends. Eliminating CWD in free-ranging cervids may be impossible, given its permanence in

the environment once established and the lack of effective management tools or treatments.

In addition to surveillance, the Department has tried to reduce the duration and intensity of unnatural big game concentrations by enacting regulations against hunting big game over bait in hunting units of concern, to reduce the risk of the disease spreading from one animal to another. To protect the deer herd in North Dakota in areas that CWD has not been found, the Department has limited carcass transportation out of North Dakota's deer hunting unit 3F2 as well as the movement of carcass parts from other states, provinces and countries that have found CWD. These regulations prohibit the possession or transportation into North Dakota of a whole carcass or carcass parts of white-tailed deer, mule deer, elk or moose from areas within North Dakota or other states, provinces and countries with documented occurrences of CWD in wild or captive cervid populations except for:

- Quarters or other portions of meat with no part of the spinal column or head attached.
- Meat that is boned out.
- Meat that is cut and wrapped either commercially or privately.
- Hides with no head attached.
- Clean (no meat or tissue attached) skull or skull plate with antlers attached.
- Antlers with no meat or tissue attached.
- Upper canine teeth, also known as buglers, whistlers, or ivories.
- A finished taxidermy head.

A number of states have also recently established regulations on the transportation of hunter-harvested deer, elk and moose. Out-of-state hunters should be familiar with the regulations in the state in which they hunt and reside.



For More Information Contact:

- **NORTH DAKOTA GAME AND FISH DEPARTMENT**
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gf.nd.gov – ndgf@nd.gov
- **BOARD OF ANIMAL HEALTH – NORTH DAKOTA DEPARTMENT OF AGRICULTURE**
600 E Boulevard Ave. Dept. 602
Bismarck, ND 58505
701-328-2655
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The threat of CWD is a serious concern to North Dakota and its natural resources. All known practical steps to minimize the risk of the disease spreading to the state have been evaluated and the North Dakota Game and Fish Department is implementing plans to prevent spread and introduction into new areas. CWD will not likely be fully understood without the assistance, cooperation and commitment of big game hunters throughout the nation. As we learn more about the disease and its impacts on wildlife, we will keep the public informed.

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INFORMATION ABOUT CWD CHRONIC WASTING DISEASE



NORTH DAKOTA GAME AND FISH DEPARTMENT

What is CWD?

Chronic wasting disease is a transmissible, progressive, fatal disease of the nervous system of species in the cervid family. White-tailed deer, mule deer, elk and moose have all been naturally infected with the disease. In addition, it's been found to infect caribou, muntjac and sika deer. CWD belongs to a group of diseases known as Transmissible Spongiform Encephalopathies (TSEs), which are caused by prions. Although CWD shares similarities with other TSEs like bovine spongiform encephalopathy (BSE or mad cow disease), scrapie in sheep and goats, and Creutzfeldt-Jakob Disease (CJD) in humans, it is a distinct disease. CWD has been shown to cause long-term population declines and reduce population age structure if left unchecked.

What causes CWD?

CWD is caused by a prion. Prions are abnormal forms of cellular protein commonly found in the central nervous system and lymphoid tissue. These abnormal proteins will accumulate in a wide range of tissues throughout the body. CWD is not caused by a virus, bacteria, fungus or nutritional imbalance.

Where is CWD found?

In North Dakota, CWD was first identified from a hunter-harvested mule deer in deer hunting unit 3F2 in 2009. Since then, additional infected mule deer and white-tailed deer have been found in 3F2, primarily in Grant and Sioux counties. CWD was first recognized in a Colorado elk research facility in 1967, a few years later in a similar Wyoming research facility and subsequently in wild deer, elk and moose. As of this writing, CWD has been detected in free-ranging deer, elk, and moose in 25 states and provinces and in free-ranging cervids in Norway and Finland. Additionally, it has been found in farmed deer or elk herds in 19 states and provinces.

How common is CWD?

CWD prevalence varies by state and region. For example, in North Dakota deer hunting unit 3F2, prevalence is estimated to be around 0.3 percent, while in Wisconsin prevalence in endemic areas is as high as 45 percent and rising. In a farmed deer operation in Iowa, the prevalence was approaching 80 percent when the herd was depopulated. In areas where CWD is found in a higher proportion of animals, there is evidence of slowed population growth and recently areas in Colorado and Wyoming have experienced population declines.

What are the signs of CWD?

CWD is an insidiously slow, progressive disease. Clinical signs are often not seen until upwards of 12-18 months post infection and could take up to 3 years to manifest. The disease attacks the nervous system of deer and more specifically the brain. The damage to the brain causes animals to stop foraging, leading to emaciation. They display abnormal behavior, lose coordination, become weak and eventually die. Many of the noticeable clinical signs are nonspecific and are shared with other diseases, but include excessive salivation, loss of appetite, progressive weight loss, excessive thirst and urination, listlessness, teeth grinding, lowering of the head and drooping ears.

How is CWD transmitted?

Research has shown the most likely route of transmission is via oral ingestion of infectious prions. There is also evidence of trans-placental transmission from mother to offspring. CWD prions have been detected in saliva, urine and feces. Exposure to these materials through normal behaviors, such as mutual grooming or through environmental contamination, is the most likely method of transmission from animal to animal. Prions have also been found in central and peripheral nervous system tissues, muscle,

lymph nodes throughout the body, spleen, liver and lungs and can be detected in circulating blood. In general, most parts of the infected animal are considered to contain infectious materials. CWD does not break down under normal environmental exposure to heat, cold or sunlight. Once in the environment, the prions will survive and remain infectious indefinitely. Some soil substrates make the prions more infectious.

How do you test for CWD?

The only sure and practical way to diagnose CWD is through microscopic examination of the brain stem or lymphatic tissue collected from animals after death. Tests for live animals, involving the removal of tonsils and rectal mucosal tissue, are currently in experimental and research stages. Currently, research indicates that testing tonsils for prions appears reliable for mule deer and white-tailed deer, but not elk. However, removing tonsils from a live animal may not be practical and may predispose the animal to getting CWD through the injured tissue during sampling. Until more research and testing is done with the tonsil and rectal mucosal test, testing the brain stem and lymph nodes are the most practical and reliable tests available.

Is there a treatment for infected deer and elk?

There is no current treatment or vaccine for CWD. A wild cervid displaying clinical signs consistent with CWD should be euthanized and tested by Game and Fish Department personnel. Removing infected animals may help prevent spread of prions and subsequent infection.

Is CWD transmissible to humans?

There have been several studies concerning the zoonotic potential of CWD to humans.

There has been no conclusive link proving that CWD can be transmitted to people, but more research is underway to answer this question. According to the Centers for Disease Control, although there has not been conclusive evidence of transmission of CWD to people, consumption of meat from an infected animal is not recommended. Another prion disease known as BSE (mad cow disease), a disease in cattle, has been linked to cases of new-variant Creutzfeldt-Jakob disease in humans in Great Britain.

Is CWD transmissible to domestic livestock?

There is no evidence that CWD can be naturally transmitted to livestock or animals other than cervids. Livestock, pronghorns and bighorn sheep have not contracted the disease, even though they have been exposed under research conditions.

What precautions should hunters take when handling or processing deer, elk and moose?

At present, there is no conclusive scientific evidence that CWD naturally affects humans. As a general precaution, the North Dakota Game and Fish Department advises hunters to take the following steps when handling and processing deer or elk:

- Avoid sick animals. Do not shoot, handle, or consume any animal that appears sick. Contact local wildlife agency personnel about animals that appear sick.
- Wear rubber/latex gloves when field dressing carcasses.
- Do not consume, and minimize handling the brain, spinal cord, eyes, spleen, tonsils and lymph nodes of any deer or elk. (Typical field dressing, coupled with boning out