



# CWD MANAGEMENT



## Chronic Wasting Disease Frequently Asked Questions

### Q. What is Chronic Wasting Disease and how do deer, elk and moose catch it?

A. Chronic wasting disease (CWD) is one type of a class of diseases called Transmissible Spongiform Encephalopathies, or TSEs, that infect members of the deer family, including deer, elk, moose, and caribou. TSEs are caused by infectious, mis-folded prion proteins, which cause normal prion proteins throughout a healthy animal's body to mis-fold, resulting in organ damage and eventual death. These prions are found throughout bodily tissues and secretions and are shed into the environment before and after death. When other animals come in contact with the prions, either from infected live animals or from contaminated environments, they can be infected. The disease is slow acting, degenerative and always fatal. The name comes from the appearance of symptomatic animals, which get very skinny and sick-looking before they die.

### Q. How will CWD impact deer and elk herds?

A. The short answer is we don't know yet. If CWD infects enough animals it will probably reduce the herd in the long term. Other states have seen deer populations decline when CWD infects 20 to 40 percent of a herd. In Wyoming, heavily-infected herds of mule deer declined 21 percent *per year* and whitetails 10 percent. Colorado saw a 45% decline in infected mule deer herds over 20 years. Clearly, if left unchecked CWD could result in large-scale population declines.

Because the distribution and intensity of CWD infections are variable across a broad landscape, the impacts across the landscape will also be variable. Keeping deer numbers down and dispersed, and reducing buck: doe ratios, may keep the prevalence low and manageable. FWP's focus will be on managing CWD infected areas for prevalence at 5 percent or lower and preventing spread. This may also mean keeping deer or elk numbers low.

### Q. Can humans be infected by CWD?

A. There is no known transmission of CWD to humans. However, the World Health Organization and the Centers for Disease Control and Prevention (CDC) recommend not consuming meat from an animal known to be infected with CWD. Furthermore, the CDC recommends that hunters strongly consider having their animals tested before eating the meat when hunting in areas where CWD is known to be present.

Some simple precautions should be taken when field dressing deer, particularly in CWD surveillance areas:

- Wear rubber gloves and eye protection when field dressing your deer.
- Minimize the handling of brain and spinal tissues.
- Wash hands and instruments thoroughly after field dressing is completed.
- Avoid consuming brain, spinal cord, eyes, spleen, tonsils and lymph nodes of harvested animals. (Normal field dressing coupled with boning out of a carcass will essentially remove these parts.)

**Montana Wildlife Health Laboratory**  
**Montana Fish, Wildlife, and Parks**  
**1400 S. 19th Avenue | Bozeman, MT 59718 | 406-994-6358**



# CWD MANAGEMENT



## **Q. Is CWD dangerous to pets or livestock?**

- A. Currently, no evidence exists that domestic pets, companion animals, or livestock can be infected with CWD. Natural transmission of CWD to other North American animals outside the cervid family has not been found.

## **Q. How do you test for CWD?**

- A. The standard test is to look at an animal's retropharyngeal lymph nodes or brainstem for evidence of CWD. These samples can only be collected from dead animals and are submitted to a certified CWD-testing diagnostic laboratory. Unfortunately, there are no non-invasive CWD tests for live animals. For research purposes, rectal or tonsil biopsies from live animals will work, but these tests are less sensitive and require capture, anesthesia, and minor surgery, making them impractical for widespread surveillance.

## **Q. How can you tell if an animal has CWD?**

- A. Animals with CWD cannot be diagnosed based on clinical signs because they are unspecific and mild at the beginning of the disease. Diagnosis is therefore made by testing central nervous system and lymph node tissues. Symptoms of infected animals can include emaciation, excessive salivation, lack of muscle coordination, difficulty swallowing, excessive thirst, and excessive urination. Clinically-ill animals may have an exaggerated wide posture, may stagger and carry the head and ears lowered, and are often found consuming large amounts of water. However, these symptoms don't appear until the terminal stage of the disease. It is important to remember that infected animals may not have symptoms, but can still be shedding infectious prions.

## **Q. Why should Ranchers and Farmers care about CWD?**

- A. Hunters are a key tool FWP uses to help rancher, farmers and other landowners manage the impact of wildlife on their property and to their crops and livestock. If CWD were to increase in prevalence, FWP anticipates some localized decline in hunting interest. Additionally, in many parts of the state property values are tied to existing recreational values. Hunting and wildlife viewing are key components. If CWD was left unmanaged and prevalence were to increase uncontrolled, it may impact property values.

Recent research has shown that plants, including plants used for livestock food, can uptake CWD prions from the soil. If continued research shows that animals can catch CWD by eating infected plants, it could have huge repercussions on the agricultural industry. Concerns nationally and internationally about CWD transmission through feed has many states and other countries to restrict the sale of such products from CWD positive areas. It is already the case that deer and elk protein, mostly from game farms, from CWD areas cannot be used in livestock feed.

## **Q. Why should Business owners care about CWD?**

- A. In Montana, outfitting and hunting make significant contributions to local economies. Across the state deer, elk and antelope hunting brings in about \$400 million. This includes hotels, restaurants and gas stations in big and small communities. We anticipate the possibility that CWD will initially

**Montana Wildlife Health Laboratory**  
**Montana Fish, Wildlife, and Parks**  
**1400 S. 19th Avenue | Bozeman, MT 59718 | 406-994-6358**



# CWD MANAGEMENT



chill interest in deer hunting in the affected area. However, effective management will require participation from hunters and support from communities.

## **Q. Where does CWD come from?**

A. The origin of CWD is unknown. It was discovered in 1967 in mule deer at a research facility in Colorado. Shortly thereafter it was also found in captive mule deer and elk in Ontario, Colorado, and Wyoming. By the 1990s it was discovered in wild white-tailed and mule deer, elk, and moose in Colorado and Wyoming and among captive animals in Saskatchewan, South Dakota, Montana, and Oklahoma. By the early 2000s, CWD was found in the wild in Saskatchewan, Alberta, Illinois, and Wisconsin.

CWD has continued to spread. As of 2017 it is in captive or free-ranging herds in 24 states, three Canadian provinces, Norway and South Korea. While it has not been found among wild deer or elk in Montana yet, it will likely arrive from infected wild animals in neighboring states or provinces.

## **Q. Can CWD be eradicated?**

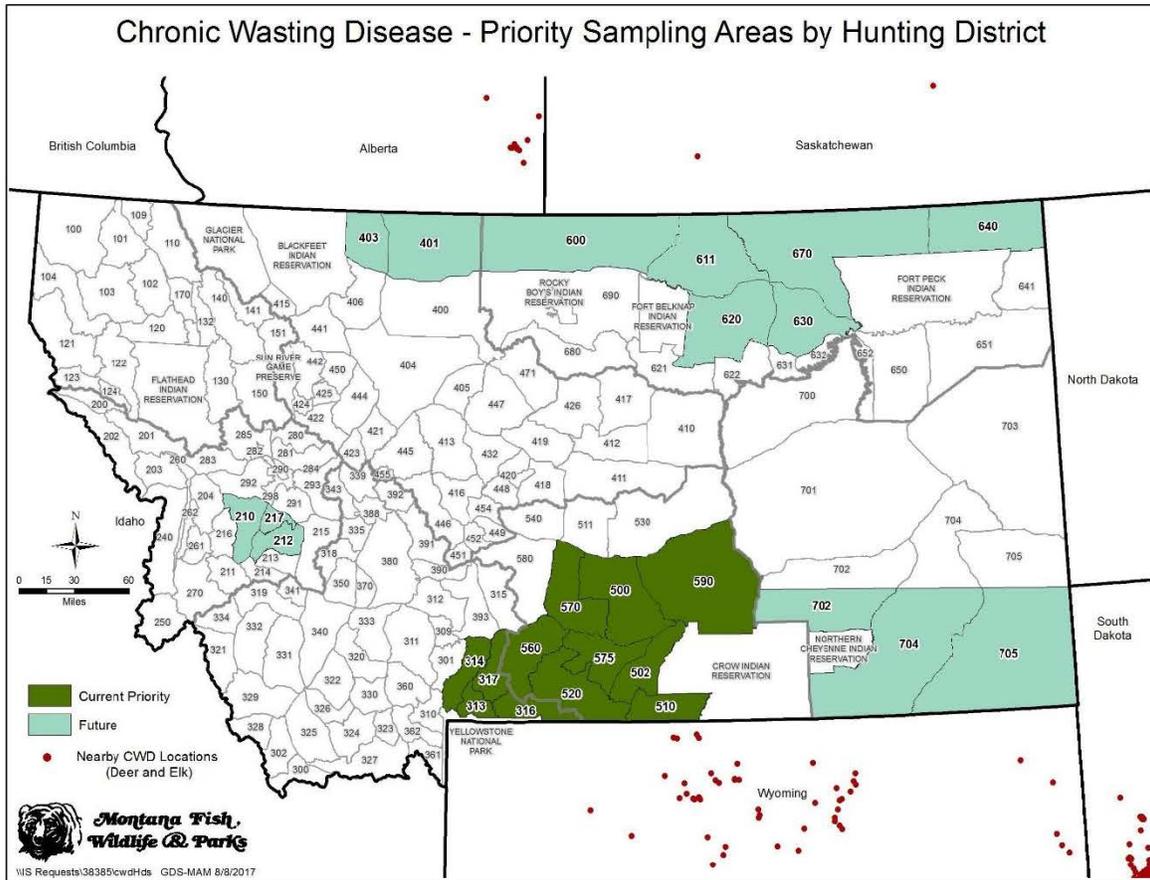
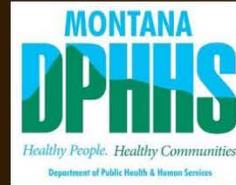
A. After decades of CWD management across the country, most agencies and researchers agree that CWD cannot be eradicated once it infects a herd. Eradication is not the goal of FWP. Other states have attempted eradication and set up unreasonable expectations with hunters and the public. Once it is found here FWP's goal is to limit the prevalence and spread of CWD.

## **Q. Where is Montana looking for CWD?**

A. Montana FWP has identified priority surveillance areas in which we will be focusing our surveillance efforts (map below). These areas have been identified as those at highest risk of becoming infected through the natural spread of the disease. Since CWD could be spread through the inadvertent or illegal movement of a CWD positive deer or elk carcass into the state, we also plan to periodically survey other areas of the state that fall outside of the high priority surveillance zones.



# CWD MANAGEMENT



**Montana Wildlife Health Laboratory**  
**Montana Fish, Wildlife, and Parks**  
 1400 S. 19th Avenue | Bozeman, MT 59718 | 406-994-6358