



Frequently Asked Questions **Chronic Wasting Disease (CWD)** **August 2008**

What is CWD?

CWD is a neurological (brain and nervous system) disease found in deer and elk. The disease belongs to a family of diseases known as transmissible spongiform encephalopathies (TSE) or prion diseases. The disease attacks the brains of infected deer and elk and produces small lesions that result in death. While CWD is similar to mad cow disease in cattle and scrapie in sheep, there is no known relationship between CWD and any other TSE of animals or people. For more information on CWD please visit www.michigan.gov/chronicwastingdisease.

Where has CWD been found?

The disease also has been diagnosed in commercial game farms in Colorado, Nebraska, Minnesota, South Dakota, Montana, Oklahoma, Kansas, Wisconsin, New York, Saskatchewan and Alberta, Canada and in an elk herd in Korea. In Michigan, the disease was confirmed on 8/25/2008 in a Kent County deer breeding facility.

The disease was long thought to be limited in the wild to a relatively small endemic area in northeastern Colorado, southeastern Wyoming and southwestern Nebraska, but it has recently been found in new areas of these states, as well as in wild deer and elk in western South Dakota, and wild deer in northern Illinois, south-central New Mexico, northeastern and central Utah, south-central and south-eastern Wisconsin, central New York, north-east West Virginia, Kansas and west and south-central Saskatchewan. Also, a CWD positive moose has recently been discovered in the endemic area of Colorado.

Where was the CWD deer in Michigan?

The deer was in a deer breeding facility in Kent County. The owner sent the culled deer to MDA for required testing. The deer was a three-year-old white-tailed doe.

Now that CWD has been found in Michigan, what is the DNR and Michigan Department of Agriculture doing?

The Michigan Department of Agriculture and DNR are following the steps outlined in the *Michigan Surveillance and Response Plan for Chronic Wasting Disease*, which was developed in 2002 to address this nationally emerging disease. Since the development of the plan, MDA and DNR have had a surveillance program in place to detect CWD in captive or wild cervids. In August 2008, CWD was discovered on a privately owned cervid facility in Michigan. Confirmation of CWD in Michigan began the implementation of the response aspect of the plan.

As outlined in the plan, the following steps have or will occur:

- MDA has quarantined all privately-owned cervidae facilities, prohibiting the movement of all – dead or alive – privately owned deer, elk or moose, until more testing is done.
- The DNR is working with landowners to collect deer from the vicinity of the facility to assess whether CWD is present in free-ranging deer.

- A ban has been enacted to prevent all feeding and baiting of deer and elk in the Lower Peninsula in an effort to reduce the possible spread of CWD.
- Possession of any wild free-ranging deer is now illegal. Taking an unhealthy deer from the environment and attempting to rehabilitate it has the potential to increase the spread of CWD.
- A CWD surveillance zone has been established for the nine townships surrounding the privately owned facility.
- For the 2008 deer hunting season, all deer harvested within the CWD surveillance zone must be taken to one of the DNR deer check stations within the CWD surveillance zone.
- All deer harvested in this zone must be tested for CWD.
- For deer harvested in this CWD surveillance zone, only boned meat, cape and clean skull plates with antlers may be removed from this nine township area.
- DNR employees will collect the head of all deer as they are brought in.

Where is the CWD Surveillance Zone?

The new CWD surveillance zone includes the townships of Tyrone, Solon, Nelson, Sparta, Algoma, Courtland, Alpine, Plainfield, and Cannon, which are all located in Kent County.

Does CWD pose a health risk to humans?

CWD has never been shown to cause illness in humans. For more than two decades CWD has been present in wild populations of mule deer and elk in Colorado. During this time, there has been no known occurrence of a human contracting any disease from eating CWD infected meat. However, public health officials recommend that people not consume meat from deer that test CWD-positive. Some simple precautions should be taken when field dressing deer in the CWD surveillance zone:

- **Wear rubber gloves** when field dressing your deer.
- **Bone out the meat** from 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 all of these parts.)
- **Request that your animal is processed individually**, without meat from other animals being added to meat from your animal.

Is the meat safe to eat?

While the agent that produces chronic wasting disease in deer and elk has not been positively identified, there is strong evidence to suggest that abnormally shaped proteins, called prions are responsible. Research completed to date indicate that the prions accumulate in certain parts of infected animals—the brain, eyes, spinal cord, lymph nodes, tonsils, and spleen. Based on these findings, hunters are recommended to not eat meat from animals known to be infected with CWD. Hunters in CWD areas are also advised to bone out their meat and to not consume those parts where prions likely accumulate.

How can CWD be treated and controlled in wildlife?

There is no treatment for CWD; it is fatal in all cases to the members of the deer family that it infects. CWD transmission can be controlled by limiting contact between infected and non-infected animals.

The Michigan Department of Natural Resources and Department of Agriculture are working to maintain the integrity of Michigan's white-tailed deer and elk herd. Surveillance, cervid importation restrictions, and required CWD testing of suspect animals continue to be the key to CWD control.

Why should people outside of the CWD surveillance zones care about the disease?

A healthy white-tailed deer population in Michigan is important. Chronic wasting disease is a statewide issue for the following reasons:

- Chronic wasting disease can spread through the deer herd.
- All deer infected with CWD die from the disease.
- White-tailed deer are native to Michigan and it is important to preserve our native wildlife.
- Any regional threat to a healthy deer population is a statewide concern.
- A healthy deer herd is important for hunting traditions. Michigan has more than 725,000 deer hunters who have harvested an average of 450,000 deer annually during the past decade. Deer hunting contributes more than 10 million days of recreation every year.
- Deer hunting annually generates more than \$500 million dollars impact to the state's economy. A healthy deer herd is critical to the state's economy.
- Without appropriate management within the current CWD surveillance zone, the disease may spread to other areas of the state.

How is CWD transmitted?

It is not fully understood how CWD is transmitted between deer. Data to date suggest that it may be transmitted both directly through animal to animal contact as well as indirectly through a contaminated environment. A recent study from Colorado State University, published in the journal *Science*, proved that CWD prions exist in the saliva of infected deer. Additionally, a recent study from the University of Wisconsin, Madison, suggests that the CWD prion can remain infectious for several years in certain types of soil.

Can CWD be transmitted to cattle?

To date, there has been no documented occurrence of cattle contracting CWD from free-ranging deer or elk. Further, in long-term studies where cattle have been housed in pens with CWD-infected deer and elk, transmission has not occurred. In studies where cattle had CWD-positive material injected directly into their brain, many of the cattle developed CWD. These experiments show that CWD can be transmitted to cattle, but through a very unlikely and extreme route of exposure. In similar experiments where cattle were fed brain material from CWD-infected deer and elk all animals have remained healthy. Since it is hypothesized that animals are infected with CWD by the oral route, this set of experiments may simulate a more natural route of exposure.

How can you tell if a deer has CWD?

Infected animals may not show any symptoms of the disease for a long period of time, even years. In the later stages of the disease, however, infected animals begin to lose bodily functions and display abnormal behavior such as staggering or standing with very poor posture. Animals may have an exaggerated wide posture, or may carry the head and ears lowered. Infected animals become very emaciated (thus wasting disease) and will appear in very poor body condition. Infected animals will also often stand near water and will consume large amounts of water. Drooling or excessive salivation may be apparent. Note that these symptoms may also be characteristic of diseases other than CWD.

What should I do if I see a deer that shows CWD symptoms?

You should accurately document the location of the animal and immediately call the Rap Line (1-800-292-7800). Do not attempt to contact, disturb, kill, or remove the animal.

For more information about how Michigan is working to prevent CWD from infecting Michigan's wild cervid populations and control CWD in deer and elk facilities, see the Emerging Diseases Web site and in particular the *Michigan Surveillance and Response Plan for CWD of Free-ranging and Privately Owned/Captive Cervids Contingency Plan* at www.michigan.gov/chronicwastingdisease.