Chronic Wasting Disease

Frequently Asked Questions

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Developed for Minnesota in cooperation with:

Agricultural Utilization Research Institute
MN Board of Animal Health
MN Dept. of Agriculture
MN Dept. of Health
MN Dept. of Natural Resources
MN Deer Hunters Association
MN Elk Breeders Association
MN Farm Bureau Federation
U of M Center for Animal Health and Food Safety
U of M Extension Service

1) The Disease

What is Chronic Wasting Disease (CWD)?

CWD is a fatal brain and nervous system disease of deer and elk. It is different than mad cow disease in cattle and scrapie in sheep but is in the same category of diseases called transmissible spongiform encephalopathy's or TSEs.

What causes CWD?

CWD is caused by an abnormally shaped protein called a prion. Prions are not a virus, bacteria or living organism but are able to increase in numbers in the brain and nervous system of an affected animal. The disease is slow to develop from the time the animal is exposed until the time it actually shows any signs of the disease (more than a year).

What are the clinical signs of CWD?

Deer and elk with CWD show weight loss, listlessness, abnormal behavior including loss of fear of humans, staggering, excessive drooling, drinking of large amounts of water, frequent urination, drooping ears and rough coat.

Can CWD be treated?

No, it is a fatal disease with no known treatment. Research is underway to identify and develop treatment possibilities.

Where and how did CWD originate?

The exact origin is unknown. It was first observed in mule deer at a Colorado research facility in the late 1960s.

What game/ wildlife are affected by CWD?

Only four members of the deer and elk family are known to be susceptible to CWD: elk, mule deer, black-tailed deer and white-tailed deer. Bighorn sheep and pronghorn antelope have not developed CWD even though exposed to it under research conditions. No other animals have been found to be affected by CWD.

2) Occurrence

Is CWD found in Minnesota?

CWD was found in a single animal on one central Minnesota elk farm in August 2002. It has not been found in free-ranging or wild deer in Minnesota to date.

Where has CWD been found?

Most of the early known CWD cases were identified in northeastern Colorado and southeastern Wyoming. CWD has been diagnosed in farmed elk herds in Colorado, Kansas, Montana, Nebraska, Oklahoma, South Dakota, Saskatchewan and Alberta, Canada. Cases have been found in wild deer in South Dakota, Wisconsin, Wyoming, Colorado, Nebraska, New Mexico and Saskatchewan, Canada.

What is being done about CWD in MN?

All of the elk on the farm where CWD was found are being euthanized and tested for the disease. The MN Department of Natural Resources (DNR) has collected more than 90 free-roaming deer so far in the immediate area around this farm. Tests conducted on these deer have not found any CWD. The DNR will be conducting a large scale surveillance program across the state during the fall 2002 hunting season. More than 5,000 deer will be tested for CWD. For more information on this DNR program, check their web site at http://www.dnr.state.mn.us .

What should a person do if a deer that looks sick is seen or found?

Do not kill the animal. Contact the local conservation officer, area wildlife manager or Department of Natural Resources office. These may be located at http://www.dnr.state.mn.us/contact/locator.html . The DNR is interested in investigating sick deer so they can protect the entire deer herd. Not all skinny, sick or unusual-acting deer have CWD. There are other diseases which may potentially affect deer.

3) Transmission to Other Animals

How does CWD spread?

CWD is transmitted from animal to animal by direct contact with affected animals or highly contaminated habitat. The infectious agents, prions, are thought to be passed from affected animals on feces, urine or saliva. These prions survive in the environment for a long time.

What about deer and elk farming?

The shipment of farmed deer, elk and other cervids is regulated and monitored by the Minnesota Board of Animal Health.

Deer are eaten by many other animals in the wild. Could CWD spread to other animals like fox, wolf, birds?

Prions are usually specific to one type of animal. Susceptibility of other wildlife species is being researched. It is unlikely that CWD or a similar prion-disease would spread to foxes, wolves or birds.

Can livestock get CWD?

Cattle and other domesticated animals appear resistant to natural infection. There are no reported cases of natural transmission of CWD to livestock. Research is continuing in this area.

Can humans get CWD from eating venison?

Prions have never been found in muscle meat, even in infected deer. There is no evidence CWD can be transmitted to humans. The World Health Organization made this conclusion after reviewing available scientific information. The U.S. Centers for Disease Control has found no evidence that prion- related disease in humans occurs more often in hunters and consumers of wild game than in the general populations. No disease in people has been found after 16 years of monitoring affected areas in Colorado.

4) Testing

How is CWD detected?

CWD is diagnosed through microscopic examination and testing of brain samples from harvested deer or elk.

Will meat processors or locker plants in Minnesota or other states test for CWD in deer?

Locker or processing plants in Minnesota or other states will NOT test deer for CWD. Testing is conducted only in specially equipped and certified laboratories.

Where can hunters have their deer tested for CWD?

After a deer is registered, hunters may take a deer or deer head for sampling to one of the 98 participating veterinary clinics in Minnesota. A list of these is available on the DNR web site at http://www.dnr.state.mn.us/mammals/deer/cwd.html . Contact the clinic listed in your area to determine the fee charged for this service. Samples collected will be sent by the clinic to the U of M Veterinary Diagnostic Lab for testing. Hunters will be notified of results by mail.

Who pays for the cost of the testing?

Hunters will be responsible for the cost of any testing that they request. DNR will cover the costs of testing that is a part of their state sampling plan.

What's the timeline on the testing results for hunters - immediate or several days or weeks?

The time to receive results will vary depending on the number of samples the laboratory receives. It takes approximately one week to conduct the analysis. If large numbers of samples are submitted, then it will take longer, perhaps several months, to deal with the backlog.

What should hunters do with the meat while they are waiting for their laboratory results?

Store the meat and trimmings in food-use bags or containers in the freezer until the results are available. When you receive negative test results, bring the trimmings back to the processor for making into sausage. Ask for a separate batch of sausage with only the trimmings from your deer. However, most processing plants will have a minimum amount that they will need to make into a batch of sausage.

What if it's processed and then results come back that the animal was contaminated. Must the meat be destroyed and how?

Presently decisions are being made on the proper disposal of meat from deer that tested positive. More information will be made available once the proper methods are examined.

5) Processing

What steps are recommended for meat processors when handling deer and elk?

It is important to minimize handling of the brain, tonsils, spleen, spinal cord and lymph nodes. Meat should be processed without splitting the backbone. All cuts used in steaks and chops can be removed from the carcass as boneless cuts. One knife or handsaw should be designated for head removal. It is also important to ensure thorough cleaning and sanitizing of knives, saws, grinders and other meat-cutting tools. Meat trimmings should be inspected and all lymph nodes removed before grinding and sausage making. All equipment must be completely disassembled and all meat scraps removed before the equipment is used again. All parts should be washed with a detergent specifically designed for cleaning meat equipment. Equipment should then be rinsed with clean water, sanitized with a chemical sanitizer or 180 degrees Fahrenheit water and allowed to air dry.

How can I locate a processor?

A list of official meat processing plants and custom meat processors is available on the Minnesota Department of Agriculture web site at http://www.mda.state.mn.us However, not all of these processing plants process venison.

What if the locker plant mixes meat from several carcasses and one proves positive for CWD?

In general, mixing of trimmings is discouraged. The Minnesota Department of Agriculture Meat and Poultry Inspection Section are advising meat processors to separately handle deer that has been sampled for CWD. This may delay the processing of the deer if you intend to have any sausage products made, but it is the only way that trimmings from a potentially contaminated deer will not be inadvertently mixed with other trimmings.

6) Consuming Venison

Is venison (meat) safe to eat?

Prions have never been found in muscle meat – even in infected deer. State officials are not recommending any general restrictions on consumption of deer meat. However, as a general precaution, it is recommended that you do not eat deer or elk brains, spinal cord, eyes, spleen, tonsils or lymph glands where prions are known to accumulate.

Where can I get venison from animals which tested free of CWD?

Minnesota has CWD monitoring available for deer and elk breeders. Harvested animals are routinely tested for CWD. Herds that have actively participated in the monitoring program for three or more years can be quite confident that they are free of the disease. A list of herds participating in the program is available from the MN Board of Animal Health.

Will venison or other wild game served at a restaurant be required to have been tested and certified free from CWD for patrons?

Restaurants are not allowed to serve hunter-harvested deer or elk. Most venison served in restaurants is red deer from New Zealand or other farmed herds that are closely monitored for CWD.

What about hunting groups that sponsor public wild game dinners?

Hunted deer may not be used in a public wild game dinner. Wild deer may be used in private parties, but not those that are open for the public. This applies to public fund raising projects by non-profit organizations as well as hunting groups fundraising projects. If you have questions relating to what meat products are eligible to be used in these projects, please contact the Minnesota Department of Agriculture at 651-297-7453.

7) Hunter safety

How can hunters protect themselves?

- Do not harvest, handle or consume any wild animals that appear to be sick/ very thin
- Wear heavy rubber or latex gloves when dressing carcasses
- Use knives and equipment dedicated to field dressing
- Remove loins as boneless cuts; do not split backbone
- Minimize handling of brain and spinal tissues (do not saw/ cut through spine/ skull – or remove head last)
- Do not consume brain, spinal cord, eyes, spleen, tonsils, lymph nodes (from deer and elk)
- Wash hands and equipment thoroughly

Should I go hunting this year?

That is an individual decision. The CWD risk to Minnesota hunters is extremely small, if at all – especially if the protection recommendations are followed.

8) More Information

Where can I learn more about CWD?

- Minnesota Department of Natural Resources, www.dnr.state.mn.us
- Minnesota Board of Animal Health, www.bah.state.mn.us
- Minnesota Department of Agriculture, www.mda.state.mn.us
- U of MN Center for Animal Health and Food Safety, www.cvm.umn.edu/cahfs
- Minnesota Deer Hunters Association, www.mndeerhunters.com
- Minnesota Elk Breeders Association, http://www.mneba.org
- United States Department of Agriculture at www.aphis.usda.gov
- Colorado Division of Wildlife at www.wildlife.state.co.us
- Wisconsin Department of Natural Resources, www.dnr.state.wi.us
- Nebraska Game and Parks, www.ngpc.state.ne.us/wildlife
- National Wildlife Health Center, U.S. Geological Survey, www.nwhc.usgs.gov
- Chronic Wasting Disease Alliance, www.cwd-info.org

For Additional Information About this Publication: Contact William Schafer, Assoc. Prof. & Extension Food Technologist, Dept. of Food Science and Nutrition, U of M Extension Service, 1334 Eckles Ave., St. Paul, MN, 55108, 612-624-4793, wschafer@umn.edu