

Chronic Wasting Disease Fact Sheet

1. **What is Chronic Wasting Disease?** - Chronic Wasting Disease (CWD) is a prion disease found in some deer and elk populations. Prions are normal proteins that are found in the cells of the brain. In diseases such as CWD abnormal forms of the prion protein accumulate within the brain cells and causes progressive damage to the brain. The resulting clinical signs include increased drooling, loss of body condition, behavioral changes and death.
2. **Where does CWD occur?** - CWD is a disease that was first recognized in Colorado in 1967 and is unique to North America:
 - a. CWD has been found in **wild** deer and/or elk in Colorado, Wyoming, Wisconsin, South Dakota, New Mexico, Illinois, New York, West Virginia, Virginia, and recently in Maryland.
 - b. In **captive** deer and/or elk, it has been found in South Dakota, Nebraska, Colorado, Oklahoma, Kansas, Minnesota, Montana, Wisconsin, and New York.
3. **How is CWD transmitted?** - The mode of transmission of CWD has not been clearly identified. Experimental evidence suggests that the disease can pass from animal to animal by contact or via contamination of feed, or pasture with saliva, urine and/or feces. The transmission may be increased when deer and elk are crowded, such as around feed and water stations.
4. **How soon after CWD exposure do signs of disease appear?** - CWD has a very long incubation period (period of time between infection and observable disease) and typically takes at least 10 months for an incubating deer or elk to show signs of illness. Animals do not show signs of illness until they have been infected for a number of months.
5. **Are domestic animals at risk for CWD?** - There is no indication to date that CWD is a threat to domestic animals or livestock other than deer or elk, and there have been no reports of CWD in dogs or cats.
6. **Are Prion Diseases transmissible to humans?** - Although there is considerable ongoing research on this issue, there is no confirmed human neurologic disease linked to CWD at this time. In addition, there have never been any indications of human illness related to Scrapie, a similar disease in sheep. However, eating prion-contaminated meat from Bovine Spongiform Encephalopathy (BSE or “Mad Cow Disease”) infected cattle in Great Britain has been convincingly linked to a fatal human disease, variant Creutzfeldt-Jakob disease (vCJD).
7. **Are there health risks in handling deer or elk?** - There is no evidence, to date, that hunters are at increased risk of acquiring CWD while field dressing the animal.

- a. However, hunters should observe standard precautions around any animals, such as only shooting healthy-appearing animals, wearing rubber gloves for field dressing and washing hands and forearms thoroughly.
 - b. Because a sick deer or elk may have rabies, if there has been any human contact with sick deer or elk, the animal involved must be reported to the appropriate local health department (Telephone: 877-PA HEALTH). Rabies exposures occur when the saliva, brain, and/or other nervous tissue from a rabid animal comes in contact with a person's eyes, nose, mouth (mucous membranes), and/or fresh open wound. After the animal has been euthanized, it will first be submitted for rabies testing. Those animals that are found to be negative for rabies will then be submitted for CWD testing. If there was no human contact, the sick animal should be reported to the nearest Game Commission office (Telephone: (717) 787-4250). Do not attempt to contact, disturb, kill, or remove the animal.
8. **Are there any precautions for handling, processing, or eating meat from deer or elk? -** To minimize the risk of transmission of any diseases when handling or processing animals, the following precautions are recommended:
- a. Deer or elk that are observed to be ill, or found dead, should not be handled and should not be eaten.
 - b. Standard carcass handling and food safety guidelines should be followed for hunter-killed deer.
 - c. Wear eye protection, and rubber or latex gloves when handling or processing carcasses.
 - d. Avoid handling or cutting through the skull or spinal cord. Use separate dedicated knives, saws and cutting boards to butcher deer, particularly if you cut through the spinal cord or skull (such as when removing antlers). Do not use regular kitchen utensils. Wash thoroughly with soap and water any knives, butchering tools, work surfaces, hands and any other part of the body that has been exposed to animal tissues, blood, urine, or feces. Equipment should then be rinsed with boiling water to remove any residual material or sanitized with an appropriate chemical sanitizer according to the manufacturer's instructions.
 - e. As an additional precaution against CWD, soak cleaned knives and tools for one hour in a fresh solution of household chlorine bleach (unscented) mixed with an equal amount of water (e.g., 1 quart bleach with 1 quart of water – a 50% solution), air dry, then rinse with clean water. Wipe down cleaned counters and other surfaces with 50% bleach solution and allow them to air dry. If bleach contacts eyes, skin, or clothing, immediately wash affected area with water and remove affected clothing. Always ,make sure that enough fresh air is available because bleach may cause eye, nose, or throat irritation.

- f. Should you decide to take the skullcap (e.g., with antlers), make sure to thoroughly clean the skull cap, utensils and work surfaces with bleach solution, as described above.
 - g. Avoid handling brain or spinal tissues/fluids, saliva and mouthparts and wash hands thoroughly with soap and water afterward, if such handling occurred. If these tissues or fluids get into a fresh open break in a person's skin or the eyes, mouth, or nose, contact the local health department to evaluate possible rabies exposure and need for testing the animal for rabies.
 - h. Request, if possible, that individual animals are processed individually, without meat from other animals being added together.
 - i. The brain, spinal cord and other nervous tissue, spleen, pancreas, eyes, tonsils, and lymph nodes of game may have CWD prions, and additional organs (liver, kidney, heart and salivary glands) may pose a risk of infection for a number of diseases. Normal field dressing will eliminate most of these organs and tissues. Hunters should have deer boned out and have as much fat, connective tissue and lymph nodes removed as possible.
 - j. Although no current evidence links CWD to human health, out of an abundance of caution, it is recommended that people not consume, distribute, or donate for human consumption a known or suspect CWD positive animal.
 - k. For more information about handling, processing, or eating meat from deer or elk in other states, contact those state agriculture, wildlife, and health agencies.
13. **Are there any risks from deer waste or products?** - Although there is no indication of human disease due to contact with prion contaminated deer waste or products from CWD-infected deer or elk, the following disease control precautions are recommended as general prevention for multiple diseases:
- a. Avoid contact with animal bodily waste material, and clean up animal waste from areas frequented by children; and
 - b. If there is skin contact with animal waste, thoroughly wash the area with soap and warm water immediately.
14. **How is CWD diagnosed?** - While apparently healthy animals might have CWD, eventually these animals will develop signs of illness. Definitive diagnosis for the disease currently requires laboratory testing of the brain and/or lymph nodes. There is no practical way to test live animals for CWD. CWD testing of apparently normal hunter-killed deer is available for a fee through the New Bolton Center Laboratory at (610) 444-5800.
16. **Is there a vaccine or treatment?** - There is no treatment nor is there a vaccine.



15. **Will cooking destroy Prions?** - No, cooking will not reach the extremely high temperatures required to destroy prions.
16. **Where may I find additional and updated information about CWD?** - More information about CWD is available from the following websites:
- a. Pennsylvania Department of Health:
http://www.portal.state.pa.us/portal/server.pt/community/diseases_and_conditions/11595
 - b. Pennsylvania Department of Agriculture:
http://www.portal.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_4_3/http%3B/10.41.0.36/AgWebsite/PublicationDetail.aspx?name=Chronic-Wasting-Disease-Response-Plan-2010&navid=11&parentnavid=0&pubid=415&
 - c. The Centers for Disease Control and Prevention (CDC):
<http://www.cdc.gov/ncidod/dvrd/prions/>

This fact sheet provides general information. Please contact your physician and/or veterinarian for specific clinical information related to you or your animal.