What is Chronic Wasting Disease?

Chronic Wasting Disease (CWD) is a contagious, always-fatal disease that infects species in the deer and elk family. It is a transmissible spongiform encephalopathy (TSE). Other diseases in the TSE family include Bovine Spongiform Encephalopathy (BSE) or Mad Cow Disease in cattle; Creutzfeldt-Jakob disease (CJD) in humans; and Scrapie in sheep and goats. It was first recognized in mule deer in Colorado in the 1960s. Evidence suggests the cause of CWD to be an abnormal prion (proteinaceous infectious particle). Prions are concentrated in the brain, nervous system, and lymphoid tissues of infected animals. The disease causes death of brain cells resulting in microscopic holes in the brain tissue. CWD-infected deer, on average look healthy, and do not display clinical signs of disease for 18 to 24 months.

What animals get CWD?

CWD has been diagnosed in white-tailed deer, mule deer, black-tailed deer, and hybrids thereof, as well as elk, red deer, moose, and reindeer.

Is CWD dangerous to humans?

There is no evidence that CWD is transmissible to humans or traditional livestock. However, the Centers for Disease Control (CDC) reports that “To date, there have been no reported cases of CWD infection in people. However, animal studies suggest CWD poses a risk to some types of non-human primates, like monkeys, that eat meat from CWD-infected animals or come in contact with brain or body fluids from infected deer or elk. These studies raise concerns that there may also be a risk to people. Since 1997, the World Health Organization has recommended that it is important to keep the agents of all known prion diseases from entering the human food chain.” If your animal tests positive for CWD, do not eat meat from that animal.

Where has CWD been found?

In Pennsylvania, Chronic Wasting Disease (CWD) has been detected in several parts of the state. It was first detected in a captive facility in Disease Management Area (DMA) 1 in Adams County in 2012. DMA 1 has since been eliminated. CWD remains in Disease Management Areas 2, 3, 4 and 5. DMA 2 covers all or portions of Adams, Bedford, Blair, Cambria, Centre, Clearfield, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Indiana, Juniata, Mifflin, Northumberland, Perry, Snyder, Somerset, Union, and Westmoreland counties. DMA 3 covers portions of Armstrong, Cambria, Clarion, Clearfield, Indiana, and Jefferson counties. DMA 4 covers portions of Berks, Lancaster, and Lebanon counties. DMA 5 is solely within Warren County. CWD has not been found in Pennsylvania’s elk herd.

In addition, CWD has been detected in wild or captive deer and/or elk in many other states and provinces. A map of Pennsylvania DMAs can be found on the CWD page of the Game Commission’s website (www.pgc.pa.gov/CWD).

How is CWD spread?

CWD is transmitted both directly through animal-to-animal contact and indirectly through food and soil contaminated with bodily secretions including feces, urine, and saliva. Contaminated carcasses or high-risk carcass parts may also spread the disease indirectly through environmental contamination. Prions are very stable in the environment and remain infectious for decades.

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What is being done to manage CWD in Pennsylvania?

CWD is a threat to wildlife and people in Pennsylvania. The Game Commission, created to safeguard public wildlife resources against such threats, is responsible for taking steps to manage CWD. Regulations are in place to minimize risks of spreading the disease. The Game Commission annually samples free-ranging white-tailed deer and elk to monitor CWD expansion and prevalence. More information can be found in the CWD Response Plan found on our website. The Department of Agriculture is responsible for oversight of captive deer and other cervid facilities.

What are high-risk carcass parts?

High-risk carcass parts, where the CWD prion (causative agent) concentrates are: head (including brain, tonsils, eyes, and lymph nodes); spinal cord/backbone (vertebra); spleen; skull plate with attached antlers, if visible brain or spinal cord material is present; cape, if visible brain or spinal cord material is present; upper canine teeth, if root structure or other soft material is present; any object or article containing visible brain or spinal cord material; and brain-tanned hide.

Why are there restrictions on the movement of high-risk parts?

Regulations prohibit the removal or export of any high-risk parts or materials from cervids harvested, taken, or killed, including by vehicular accident, within any Disease Management Area (DMA) or Established Area (EA) within the Commonwealth. Regulations also prohibit the importation of any high-risk parts or materials from cervids harvested, taken, or killed anywhere outside of Pennsylvania. Although CWD has been detected in both captive and free ranging deer, the Game Commission’s goal continues to be to prevent further introductions of CWD into our state and to prevent spread within the state. The movement of high-risk carcass parts is a potential avenue through which CWD could be spread.

What carcass parts are safe to move?

The following cervid parts may be safely transported into and within Pennsylvania: meat with no part of the spinal column or head attached; cleaned hides without the head; skull plates and/or antlers cleaned of all brain tissue; upper canine teeth without soft tissue; or finished taxidermy mounts. These parts may be moved out of Pennsylvania’s Disease Management Areas and Established Area.

More Information

More information on CWD and a map of Pennsylvania DMAs can be found on the CWD page of the Game Commission’s website (www.pgc.pa.gov/CWD).
What can you do as a TAXIDERMIST to prevent the spread of CWD?

Determine if the cervid carcass presented to you is from outside Pennsylvania or within a DMA or EA.

1. If the cervid carcass IS NOT from outside Pennsylvania or within a DMA or EA:
   a. Wear nitrile or rubber gloves when processing the carcass.
   b. Thoroughly clean hands and processing tools with soap and hot water; spray all surfaces with 40% bleach (2 parts household bleach + 3 parts water) and allow to air dry; soak all knives and tools in 40% bleach for a minimum of five minutes. After removing knives and tools from bleach soak, allow to air dry. Once dry, all surfaces, knives, and tools can be rinsed with fresh water.
   c. Dispose of carcass parts through the trash, or in food waste dumpsters intended for regulated landfills.
   d. Do not allow animals to have access to your taxidermy area or taxidermy waste.

2. If the cervid carcass IS from outside Pennsylvania OR from a DMA from which you are not within nor a cooperator for OR from an EA for which you are not within AND if high-risk parts are present (such as whole head with cape and antlers, or whole carcass):
   e. Notify the appropriate Game Commission region office.
   f. After receiving authorization from the Game Commission, the taxidermist may cape out the head and remove the antlers being careful to remove all visible brain and spinal cord material from the skull cap and cape.
   g. Wear nitrile or rubber gloves when working on the specimen.
   h. Thoroughly clean hands and processing tools with soap and hot water; spray all surfaces with 40% bleach (2 parts household bleach + 3 parts water) and allow to air dry; soak all knives and tools in 40% bleach for a minimum of five minutes. After removing knives and tools from bleach soak, allow to air dry. Once dry, all surfaces, knives, and tools can be rinsed with fresh water.
   i. CWD-positive meat or waste should not be rendered, burned in burn barrels, deposited in bone piles, or spread in areas where it can come in contact with other animals. High-risk parts can be disposed of in a landfill. Contact the appropriate Game Commission region office with questions.
   j. Do not allow animals to have access to processing areas or processing waste.

3. If the specimen has evidence of being tagged — actual ear tags, torn ears, or holes in the ears — AND was not harvested within a high fence/shooting facility, this may indicate an escape from a captive cervid facility and the appropriate Game Commission region office should be contacted.