

# Factsheet: Chronic Wasting Disease

## B.C. Wildlife Health Program

### Chronic Wasting Disease... What is it?

Chronic Wasting Disease (CWD) is a degenerative neurological disease that affects species in the deer family (cervids). The disease is caused by an abnormal protein called a prion. CWD and other prion-associated diseases are called transmissible spongiform encephalopathies (TSEs), referring to; the disease is transmissible, affected tissue has a sponge like appearance and they are primarily diseases of the brain. Other TSEs include scrapie in domestic sheep, bovine spongiform encephalopathy (BSE or “mad cow disease”) in cattle, and a human disease called Creutzfeld-Jakob disease. TSEs are generally unique to species and not naturally transmitted between species.

### Where did CWD come from?

The origins of CWD are not known but the disease was first described in captive mule deer and elk in Colorado and Wyoming in the 1960s, followed by positive diagnoses in free-ranging deer and elk populations. The first case of CWD in Canada was in 1996 in farmed elk in Saskatchewan (SK) with spread to numerous elk and deer farms in western Canada. Unfortunately, the disease was transmitted into free-ranging deer and continues to spread in Saskatchewan and Alberta. In 2017 the disease was detected in Montana, with at least one case just south of the BC border. CWD has now been diagnosed in captive and free-ranging cervids in 24 US states, 3 Canadian provinces, 3 countries in Europe and Korea.

### How is CWD transmitted?

CWD is transmitted to animals through contact with an infected animal or contact with a contaminated environment (soil, feed, water). Prions are shed from infected animals through saliva, urine, feces and are present in tissues of an infected carcass. There is more opportunity for transmission when animal density is high or if there are shared resources (feed and water). Research on plant contamination and scavenger animals have shown these are potential transmission pathways but these are not felt to be as significant for new introductions.

### What does CWD look like?

In general, symptoms of CWD take months or years to develop in a newly infected animal. In early stages of the disease animals look normal. In later stages, infected animals may show signs of extreme weight loss, drooling, difficulty swallowing, increased drinking and urination, poor coordination or stumbling, trembling or depression. An infected animal can shed the infectious agent (prions) throughout the course of the disease, even before symptoms develop. There are no vaccines or treatments; the disease is fatal in all cases.

### Is there a risk to humans?

There is no direct evidence that CWD can infect humans and there has never been a human case of CWD. However, there is much that is not known about the disease so a precautionary approach is recommended. The World Health Organization and other human health experts recommend that all products from animals known or suspected to be infected with CWD are not used for human food.

## Is CWD in British Columbia?

CWD has not been detected in B.C. The B.C. Wildlife Health program has been doing surveillance for CWD in free-ranging cervids since 2002. To date, over 3900 samples have been tested and there have been no CWD positive cases in B.C.

## Will CWD eventually get to British Columbia?

A number of factors are identified as playing a role in the introduction and spread of CWD to new areas. The primary risk factor is the movement of infected cervids. B.C. was proactive in regulating and banning the import of live cervids or the farming of native cervid species in the 1980s to at least reduce that risk. CWD may enter B.C. through natural animal movement or the import of an infected carcass, tissue or contaminated biological products such as urine based scents, all which can contaminate the environment with the CWD prion. Research demonstrates that plants such as grasses can uptake CWD prions from contaminated soils, providing another potential source of disease introduction. To date there is no method to remove the prion from contaminated soil.

## What can you do to help?

### Prevention – understand the risks

If you hunt in an area outside B.C. that is affected with CWD, please leave the high risk tissues (brain, spinal cord, lymph nodes and organs) where you harvest the animal and return only with the meat. Consider submitting the head for CWD testing with that jurisdiction's Wildlife Health Program.

- Remove the head, hide, hooves, mammary glands, internal organs and spinal column before moving carcasses
- If you wish to keep the skull or antlers, remove all brain tissue from the skull and connecting bone plate and disinfect with a 10% bleach solution.
- If you wish a hide tanned, remove all tissues, enclose in a plastic or sealed container, freeze and submit for tanning as soon as possible.

### Surveillance and Early Detection - we are looking for CWD

Surveillance is key to confirm B.C.'s CWD-free status and to detect the disease as early as possible so we can respond in the most effective way possible. Hunters in B.C. are encouraged to submit their cervid heads to the BC CWD Surveillance Program at one of our drop off locations. Please report any sick or unusually thin animals to the RAPP line at 1-877-952-7277. The recent detection of CWD in Montana (near the BC border) has increased the risk significantly for B.C. wildlife, especially in South East B.C., so more intense testing is likely to occur in that area. Cervid head samples from the East Kootenay and Peace Regions will remain of particular interest.

Learn more on our website [www.gov.bc.ca/chronicwastingdisease.ca](http://www.gov.bc.ca/chronicwastingdisease.ca)

If you have questions or need additional information, please contact us:

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