**Chronic Wasting Disease and the Impacts to Human Health**

According to the [Centers for Disease Control and Prevention,](https://www.cdc.gov/prions/cwd/index.html) Chronic Wasting Disease (CWD) is "a [prion disease](https://www.cdc.gov/prions/index.html) that affects deer, elk, reindeer, sika deer and moose" and is association with a game farm. It was discovered in 1967 in captive mule deer in [Colorado](https://www.usnews.com/news/healthiest-communities/colorado).

CWD is one of those diseases that is difficult to follow up on in terms of (human) exposure and outcome because of the long incubation period –10 years or more. Scientists are stating if there are human cases in 2019, the people would have been exposed back in 2005 and 2009.

In June of 2019, scientist have revealed that there are distinct deer and elk prion strains. This is key to understanding the number of strains of CWD that exists as well understanding animal and human health.[[1]](#footnote-1) There are still outstanding questions:

1. *Understanding whether or not human beings exposed to CWD prions will contract a new form of human prion disease?*
2. *Understand the potential for prions to transmit disease from species to another. [[2]](#footnote-2)*

**Is CWD a risk to human health?**

According to Health Canada (2019), at this time there is no direct scientific evidence to suggest that CWD may be transmitted to humans.

As a precautionary measure, it is recommended that any tissue that may have come from a known CWD-infected animal not be used or consumed by humans.

Measures have been taken at both the federal and provincial/territorial levels to reduce human exposure to products potentially contaminated by CWD by preventing known infected animals from entering the food chain.

Health Canada recommends that people avoid consuming meat from animals known to be infected with any TSEs. In areas where CWD is known to exist in wild cervids, hunters are encouraged to take precautions when handling carcasses and should consider having those animals tested before eating the meat, preparing trophies or tanning hides. Any further questions related to human health and food safety can be directed to [Health Canada](https://www.canada.ca/en/health-canada/corporate/contact-us/enquiries-general-information-problems-web-site.html).[[3]](#footnote-3)

There are currently no live tests (e.g., blood test) available that can definitively diagnose CWD. At this time, CWD infection can only be confirmed by testing tissue from an animal after it is dead.

Fall of 2019, the Ontario Ministry of Natural Resources and Forestry (MNRF) will be conducting chronic wasting disease monitoring in 2 Ontario regions:

* **Northwestern Ontario**: wildlife technicians will be testing deer harvested in wildlife management units: 8, 9A, 9B, 10 and 13.
* **Eastern Ontario**: In response to the recently detected cases of chronic wasting disease on a farm in Quebec, comprehensive chronic wasting disease monitoring will also occur in wildlife management unit 65 and 64B in eastern Ontario.[[4]](#footnote-4)

**Recommendations**

No case of transmission of chronic wasting disease prions to deer hunters has yet been reported.[[5]](#footnote-5)

Although the risk of human infection with CWD prions appears to be low, **hunters should not shoot or consume** an elk or deer that is acting abnormally or appears to be sick and to avoid the brain and spinal cord when field dressing game. As an additional precautionary measure, it is recommended that one does not **consume brain, spinal cord, eyes, spleen, or lymph nodes of these animals.**

1. <http://www.virology.ws/2015/03/11/is-chronic-wasting-disease-a-threat-to-humans/> [↑](#footnote-ref-1)
2. <https://www.sciencedaily.com/releases/2019/06/190611102715.htm> [↑](#footnote-ref-2)
3. <https://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/cwd/fact-sheet/eng/1330189947852/1330190096558> [↑](#footnote-ref-3)
4. <https://www.ontario.ca/page/chronic-wasting-disease> [↑](#footnote-ref-4)
5. <https://www.ontario.ca/page/chronic-wasting-disease#section-4> [↑](#footnote-ref-5)