



## Chronic Wasting Disease Surveillance Program

Chronic wasting disease is a fatal neurologic disease affecting free-ranging and captive cervids and is characterized by progressive weight loss, abnormal behavior, and eventual death. Species affected include mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), elk (*Cervus elaphus*), and moose (*Alces alces*). Chronic wasting disease belongs to a group of diseases called transmissible spongiform encephalopathies (TSE). Chronic wasting disease is similar to scrapie in sheep and bovine spongiform encephalopathy (also known as mad cow disease) in cattle as well as variant Creutzfeldt-Jakob disease (vCJD) in humans. These disease syndromes are associated with the accumulation of abnormal prions, a cell regulation protein, in the brain of affected animals.



Elk exhibiting clinical signs of CWD  
Photo Dr. Beth Williams

Chronic wasting disease was first identified in captive deer in Colorado in 1967 and has since been detected in both captive and free ranging cervids in at least 24 states and 2 Canadian provinces. CWD has also been reported in reindeer (*Rangifer tarandus*) and/or moose in Norway, Finland, and Sweden. Arizona is currently a CWD-free state but it shares borders with three states where CWD occurs: Utah, Colorado, and New Mexico.

The Department began conducting CWD surveillance in 1998 and has since collected over 23,000 samples. Samples are acquired through four different processes: a reimbursement program established with taxidermy and meat processor businesses throughout Arizona; at the check station on the Kaibab Plateau; by regional personnel from hunter-harvested animals; and targeted surveillance.

Surveillance in Arizona has thus far shown that CWD is not present in our deer or elk populations. The Game and Fish Department has implemented steps to reduce the potential for this disease so that it doesn't establish itself in Arizona. Extra efforts are being made to focus on areas bordering CWD-positive states. Protocols have been established should the disease find its way across our borders.

### Objectives

1. To conduct hunter-harvested and targeted surveillance of both deer and elk throughout the state of Arizona.
2. To increase surveillance efforts in areas bordering CWD-positive states.
3. To increase sampling of cervids harvested outside of Arizona that are brought back into the state.

### Project contacts

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