



# Frequently Asked Questions About CWD

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## CWD Basics

### 1. What is Chronic Wasting Disease?

- Chronic Wasting Disease (CWD) is a progressive neurological (brain and nervous system) disease found in deer, elk, moose, and reindeer. CWD belongs to a family of diseases known as transmissible spongiform encephalopathies (TSE's), which is the same family of disease that includes mad cow. CWD causes a spongy degeneration in the brains of infected animals resulting in emaciation, abnormal behavior, loss of bodily functions, and ultimately death. It is always fatal.

### 2. What causes CWD?

- The infectious agent that causes CWD is an abnormally shaped protein, called a prion, which is typically found in the nervous system and lymph tissues. Prions "infect" host animals by converting a normal protein to the abnormal form. The misfolded prions begin to accumulate in the brain and eventually cause clinical neurological signs. Unlike bacteria or viruses, prions do not cause an immune response in the infected animals. Prions are resistant to enzymes and chemicals that normally break down proteins, making disinfection difficult and treatment impossible.

### 3. How Does CWD Spread?

- CWD is spread both directly (animal-to-animal contact) and indirectly (contact with an object contaminated with prions, such as soil). Prions are shed through the saliva, feces, and urine of infected deer. Prions can remain infective in soil for years.



- A possible mode of CWD spread is through the movement of infected carcasses. Therefore, many states, including Virginia, have adopted some form of carcass transportation regulations.
  - Deer feeding, baiting, and rehabilitation of deer may increase the prevalence and spread of the disease. Due to this, these practices have been banned in certain areas of Virginia.
- 4. If scavengers feed on a carcass, can they spread CWD?**
- The role that scavengers may play in the spread of CWD is not well understood. It is possible that certain scavengers, like birds, may be able to transmit and spread CWD prions. There is emerging research that indicates mountain lions and bobcats may eliminate most prions ingested through eating CWD-infected meat.
- 5. How can you tell if a deer has CWD?**
- In the early stages of infection animals do not show symptoms but are already spreading infectious prions. The incubation period ranges from 1.5-2+ years. In later stages, infected animals display abnormal behavior such as staggering, carrying the head and ears lowered, drooling, lack of fear of humans, and standing with an exaggerated wide-legged stance. Animals at the end stages of the disease may have poor hair coats and appear emaciated, or starving. Clinical symptoms are rarely seen in deer less than 16 months of age. Some CWD symptoms are characteristic of diseases or conditions other than CWD (e.g., bacterial brain abscesses, hemorrhagic disease, normal spring and fall hair shedding, vehicle collisions, etc.).

## See a Sick Deer?

- 1. What should you do if you see a deer with CWD-like symptoms?**
- Do not attempt to contact, disturb, kill, or remove the animal. Please document the location of the animal and contact DWR via the Virginia Wildlife Conflict Helpline at 855-571-9003.
- 2. If a hunter sees a sick-looking deer and takes it, does that count as one of their license tags?**
- Yes, the law is very clear on this issue. If you kill a deer your license tag must be notched. Please report sick-looking deer instead of killing them yourself.
- 3. If I find a dead deer in the woods, what should I do?**
- If it is fresh and has symptoms of illness (extreme emaciation, pus or abscesses in the chest, etc.) please call the Virginia Wildlife Conflict Helpline. Otherwise, leave it where it is or bury it.

## CWD in Other Species

- 1. What species are known to be susceptible to CWD?**
- Elk, moose, mule deer, black-tailed deer, reindeer, Sika deer, red deer, and muntjac deer are all susceptible. Susceptibility of other deer species (e.g., fallow deer, etc.) remains unknown.



## 2. Can CWD infect livestock or pets?

- There is no evidence at this time that CWD can be naturally transmitted to livestock, pets, or humans. However, research on transmission potential between species is ongoing.

## 3. Can humans be infected with CWD from deer?

- At this time, there is no evidence that suggests humans can get CWD from deer. Research is ongoing, though, and the possibility has not been definitively ruled out. Animal studies suggest that CWD may pose a risk to some types of non-human primates, such as macaques, if they eat meat from CWD-infected animals. The Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) do not recommend eating meat from CWD-positive animals. The CDC also recommends that hunters get their deer tested for CWD prior to consumption if they are hunting in areas where the disease is known to exist. These tests are not food safety tests, however. Both the CDC and WHO recommend labeling packages of venison individually so that if multiple deer are harvested by a hunter in one season but only one deer tests positive, meat from that specific deer can be identified and discarded.

## CWD Worldwide

### 1. Which states/provinces/countries have CWD?

- As of September 2024, CWD has been found in 35 US states and internationally in Canada, Finland, Sweden, Norway, and South Korea. An updated distribution map for North America can be found here: [USGS CWD Map](#)

## CWD in Virginia

### 1. Where has CWD been found in Virginia and how many infected deer have been confirmed?

- As of July 2024, 252 cases of CWD have been confirmed in Virginia.
- CWD has been confirmed in Frederick, Shenandoah, Clarke, Warren, Loudoun, Fairfax, Fauquier, Rappahannock, Culpeper, Madison, Pulaski, Montgomery, Floyd, Carroll, and Tazewell counties.

### 2. What counties are included in the CWD Disease Management Areas (DMAs)?

- DMA1 includes all of Frederick, Shenandoah, Clarke, and Warren counties.
- DMA2 includes all of Arlington, Fairfax, Prince William, Loudoun, Fauquier, Rappahannock, Culpeper, Madison, Orange, and Page counties.
- DMA3 includes all of Carroll, Floyd, Franklin, Montgomery, Patrick, Pulaski, Roanoke, and Wythe counties.
- DMA4 includes all of Bland, Smyth, and Tazewell counties **except** the Clinch Mountain Wildlife Management Area that is partially in Smyth County.
- The boundaries of each DMA are established based on county lines. Counties within a 10-mile radius of a positive case are included in the DMA.



## Testing for CWD

### 1. How is CWD diagnosed?

- Deer are tested for CWD after death via extraction of the medial retropharyngeal lymph nodes (from the neck) and/or the obex (a specific part of the brainstem) and submission to a laboratory for either immunohistochemistry (IHC) or enzyme-linked immunosorbent assay (ELISA).
- It is important to note that the currently available CWD diagnostic tests are not food safety tests, and the intent of any testing is not to certify a deer as “safe for consumption”. Test results will be either “positive” or “no prions detected”. In the early stages of infection, prions may be too low in number to be detectable by the test. A “no prions detected” result does not guarantee that an individual animal is not infected with CWD but rather suggests that the deer is significantly less likely to be infected.
- Another test that is being used more frequently to test for CWD in certain contexts is RT-QuIC. This test produces comparable results to ELISA and IHC, but is more sensitive, meaning it can find lower numbers of prions. It is not yet validated for state agency CWD surveillance, however.

### 2. Is there a field test for CWD?

- There are currently no available field tests for CWD – all samples from Virginia go to the Wisconsin Veterinary Diagnostic Lab (WVDL) or Virginia Tech Animal Laboratory Services (VITALS).

### 3. How do I get a deer I harvest tested for CWD?

- **Deer harvested in a DMA:** DWR has set up voluntary CWD testing collection sites in the DMAs. Follow the instructions posted on the refrigerator to remove the deer head and 3-4 inches of neck, bag it, label it, and fill out the data card (bags, maps, and data cards are provided). This testing is free of charge. Locations can be found here: [CWD Testing Locations in Virginia](#). Additionally, certain processors and taxidermists within the DMAs are able to sample for CWD.
- **Mandatory Day:** On the first day of the general firearms deer season, select counties require all deer harvested on that day be brought to a staffed station or a voluntary fridge for CWD testing. The counties and stations participating in Mandatory Day can be found in the annual hunting digest and on the DWR website.
- **Deer harvested in Virginia but not in a DMA:** Hunters may take the head of their deer to a voluntary CWD testing collection site at select DWR office locations. Those can also be found in the map above. Certain VDACS laboratories can also sample deer for CWD – call ahead of time to confirm. Additionally, certain taxidermists are able to sample deer for CWD.

### 4. How long does it take to get sample results?

- It will take between 2 and 6 weeks to receive results via our website: [Check My Results](#)
- Generally, results from samples within a DMA will have a faster turnaround time than results from tests outside of a DMA.
- **DWR will always directly contact hunters that have harvested a CWD-positive deer.**



5. **If I kill a deer on the first Saturday of regular firearm's season in a mandatory CWD testing county and I want to have it mounted, how do I comply with the mandatory sampling requirement without ruining the mount?**
  - We are cooperating with local taxidermists. Please stop by a CWD sampling station, talk to DWR staff and let them know which taxidermist *within the DMA of harvest* you intend to use, and DWR will arrange with the taxidermist to collect samples after they have finished caping the deer.
6. **How does DWR get samples to test for CWD?**
  - DWR tests hunter-harvested deer collected through voluntary fridge collection sites, meat processors, taxidermists, and through Mandatory Day sampling.
  - DWR tests certain deer that are showing clinical signs consistent with CWD.
  - DWR tests all elk and captive deer upon death.
  - DWR occasionally tests road-killed deer for CWD.
7. **When a deer tests positive for CWD, does DWR confiscate the deer?**
  - No. DWR notifies the hunter as soon as possible of the positive test and will assist with correctly disposing of any carcass remains or venison if the hunter requests assistance.

## Transporting Deer and Elk

1. **What parts of a deer or elk carcass can I import into Virginia?**
  - Infected carcasses are likely a major source of CWD spread across North America. In the early stages CWD shows no symptoms, but infectious prions are accumulating in the brain and spine. The goal therefore is to prevent these most heavily infected tissues from being transported long distances.
  - It is illegal to import into Virginia a whole deer, elk, or moose carcass or any part containing brain or spinal tissue originating from anywhere outside of Virginia. However, the following carcass parts are allowed:
    - Boned out meat.
    - Quarters or other portions of meat with no part of the spinal column or head attached.
    - Hides and capes with no heads attached.
    - Clean (no meat or tissue attached) skull plates with or without antlers attached.
    - Clean (no meat or tissue attached) skulls with or without antlers attached.
    - Antlers with no meat or tissue attached.
    - Upper canine teeth, also known as "buglers," "whistlers," or "ivories."
    - Finished taxidermy products.
  - A legible label shall be affixed to packages or containers holding the allowed carcass parts with the following information: the species of animal, the state or province from where the animal originated, and the name and address of the person who killed the animal or possess it in Virginia.
2. **Can I take a deer carcass out of Virginia?**
  - Virginia is a CWD-positive state therefore hunters must follow carcass importation regulations in the destination state. A good place to check for current regulations is the



CWD Alliance website (<http://cwd-info.org/>), or with your destination state's game management/natural resources agency.

**3. Can I take and transport deer antlers and skull plates out of the DMAs?**

- Yes. As long as they are clean of any skin, hair or tissues. The brain, spinal cord, and the fluid surrounding these tissues contain the highest prion concentrations.

**4. What should I do if a deer or elk I killed in another state has CWD?**

- Many states have CWD testing programs. If you are notified that an animal you killed in another state tested positive for CWD, and you have brought any part of the carcass back to Virginia, you are required to contact DWR within 72 hours. DWR may take possession of any imported carcass or carcass parts from a CWD positive animal.

## CWD Management

**1. What is being done about CWD in Virginia?**

- To assess the status of CWD in Virginia, the DWR initiated a CWD surveillance program in the fall of 2002. Between 2002 and 2024, over 48,000 samples have been collected and tested from across the Commonwealth.
- When CWD is initially detected in an area, DWR delineates a Disease Management Area. Currently, there are 4 DMAs. Within these DMAs the following apply:
  - **Whole deer carcasses and parts containing brain or spinal tissue cannot be transported out of the CWD DMAs, except:**
    - Boned out meat.
    - Quarters or other portions of meat with no part of the spinal column or head attached.
    - Hides and capes with no heads attached.
    - Clean (no meat or tissue attached) skull plates with or without antlers attached.
    - Clean (no meat or tissue attached) skulls with or without antlers attached.
    - Antlers with no meat or tissue attached.
    - Upper canine teeth, also known as "buglers," "whistlers," or "ivories."
    - Finished taxidermy products.
    - Carcasses/parts may be transported between counties within the DMA of harvest but they cannot be exported out of the DMA. There are two exceptions: Deer harvested in DMA2 may be transported to DMA1 and deer harvested in DMA4 may be transported to DMA3. See Figures 1 and 2 for details.





DMA 1 and DMA 2 CWD Sampling Stations 2024

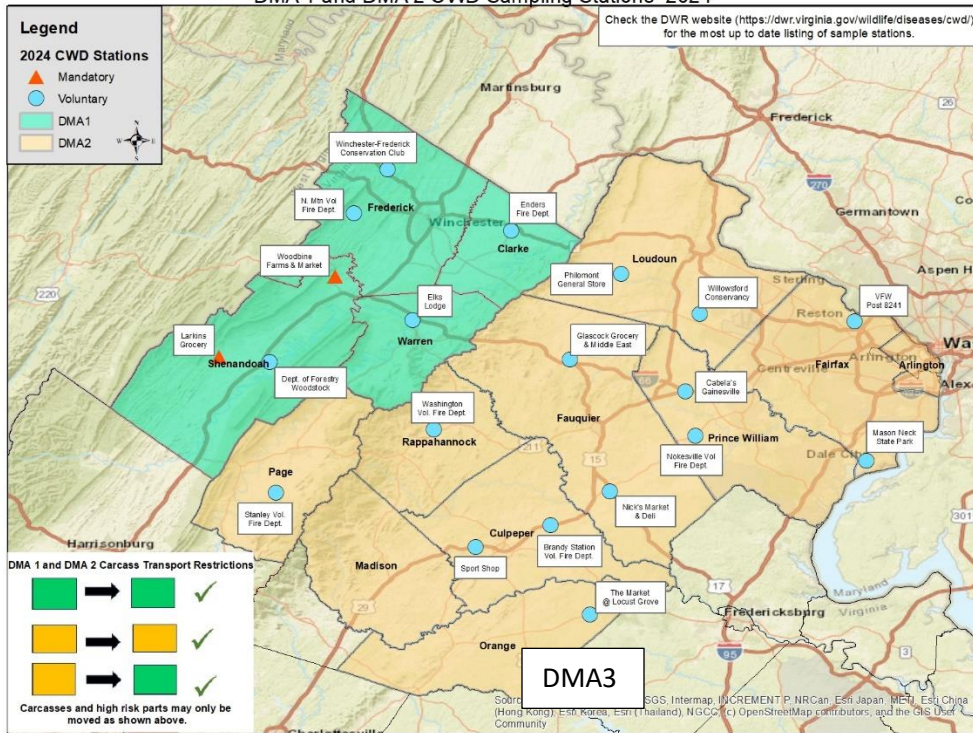


Figure 1. Carcass Transport Map for DMA1 and DMA2.

DMA 3 and DMA 4 CWD Sampling Stations 2024

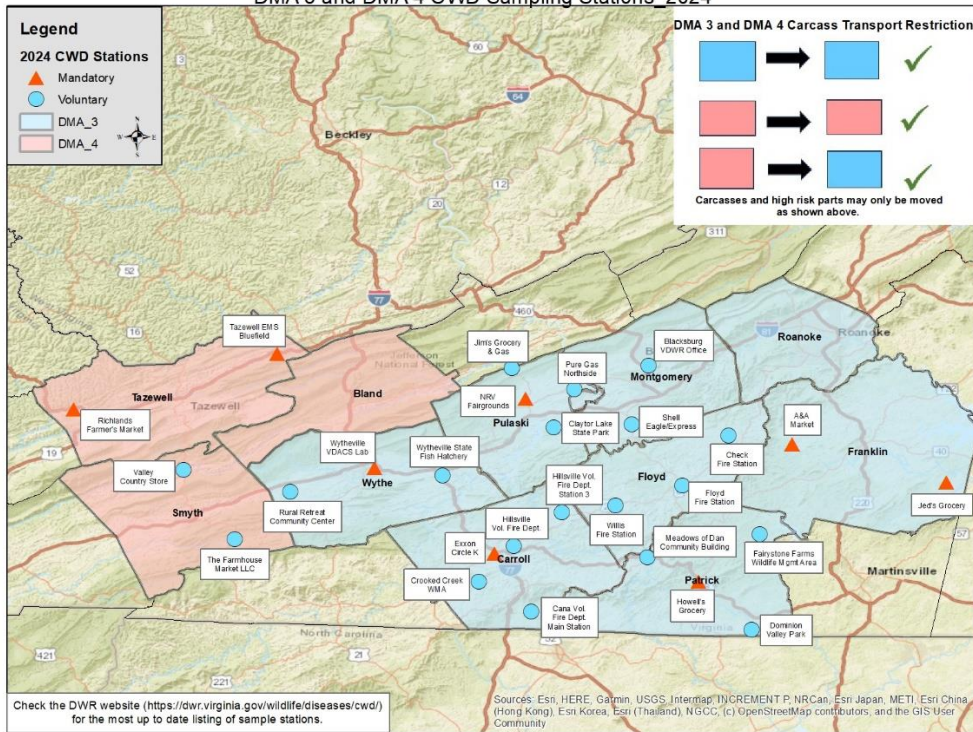


Figure 2. Carcass Transport Map for DMA3 and DMA4.



- **Early and late antlerless-only firearms seasons in DMA1, DMA2, and DMA3 counties except Franklin, Patrick, Roanoke, and Wythe counties.**
    - See <https://dwr.virginia.gov/hunting/regulations/deer/> or the annual hunting digest for the most up-to-date information. These seasons are put in place to meet deer population management objectives.
  - **Earn a Buck (EAB) is in effect in certain localities. See <https://dwr.virginia.gov/hunting/regulations/deer/> or the annual hunting digest for the most up-to-date information.**
    - EAB is used to increase the antlerless deer harvest to meet deer population objectives in specific counties.
    - Within a license year and within each individual county listed, before you can take a second antlered deer on private lands in that county (your second buck), you must have taken at least one antlerless deer on private lands in that county. Furthermore, in those counties listed east of the Blue Ridge Mountains where it is legal to harvest a third antlered deer, before you can take a third antlered deer on private lands in that county (your third buck), you must have taken at least two antlerless deer on private lands in that county
  - **Feeding of deer is prohibited year-round in Albemarle, Arlington, Augusta, Bedford, Bland, Botetourt, Buchanan, Carroll, Clarke, Craig, Culpeper, Dickenson, Fairfax, Fauquier, Floyd, Fluvanna, Franklin, Frederick, Giles, Grayson, Greene, Henry, Loudoun, Louisa, Madison, Montgomery, Orange, Page, Patrick, Prince William, Pulaski, Rappahannock, Roanoke, Rockingham, Russell, Shenandoah, Smyth, Spotsylvania, Stafford, Tazewell, Warren, Washington, Wise, and Wythe counties, and all cities and towns within these counties (see Figure 3).**
    - Elsewhere in Virginia, it is unlawful to distribute food, minerals, carrion, or similar substances to feed or attract deer from September 1 through the first Saturday in January. This prohibition does not include the planting of wildlife food plots.
  - It is illegal to possess or use deer scents or lures that contain natural deer urine or other bodily fluids while taking, attempting to take, attracting, or scouting wildlife in Virginia.
  - **Rehabilitation is prohibited for any deer that originates from within the CWD DMAs**
    - Rehabilitation of adult deer is prohibited throughout Virginia.
  - DWR continually updates its CWD Response and Surveillance Plan that guides response actions when CWD is found in or near Virginia, surveillance efforts, and management actions. DWR monitors CWD status in other states, continues to stay up-to-date on new research and developments, and works to share information with the public and other agencies in a timely manner.
2. **Why are mineral blocks and bags of feed still available for purchase in Virginia during the hunting season?**
- DWR only has the authority to regulate the use of these products in the field. DWR does not have the authority to regulate the sale and purchase of these products.
3. **Are planted food plots legal?**
- Food plots and normal agricultural operations are legal.







## 6. How should I dispose of a deer?

- Leftover parts of deer harvested anywhere in Virginia should be:
  - Double-bagged and placed directly in a landfill, a trash receptacle to be picked up with the regular trash collection, or in a compactor. Landfill disposal is the best way to prevent the spread of CWD.
  - Buried close to the site of harvest. **Burial reduces but does not eliminate the risk of spreading CWD.**
  - Left on the landscape as close as possible to the site of harvest. This is a last resort option.
- Deer carcasses should never be dumped near or into bodies of water or along roadways. Hunters are advised not to move carcasses long distances, if avoidable.

## 7. How low does DWR want the deer population to be?

- There is no magic number. We do know that lowering the population has the potential to slow the spread of CWD, but an exact level needed to significantly do so is not known. Within the DMAs, CWD is not found uniformly. With fewer deer there is less competition for resources and less incentive for deer to move into new areas. The herds are less dense and have less contact between them. A lower density population also lessens the risk of a healthy deer coming into direct contact with a CWD-infected deer.

## 8. What else can be done to contain CWD?

- Measures to prevent deer from congregating together, such as removing bait piles or mineral licks, help to reduce CWD spread. Preventing the importation of infected carcasses or contaminated products, such as attractants or lures that contain natural deer urine, can prevent the spread of prions to new areas.



## CWD vs. HD

### 1. What is the difference between CWD and HD? Why is DWR more concerned about CWD?

- The biggest difference between HD and CWD is that HD has been a yearly occurrence in Virginia for over 50 years (reports of probable HD date back much further) and the epizootology of the disease is therefore predictable; Virginia typically has a significant epizootic, or outbreak, of HD about every five years. While there may be significantly decreased localized harvests in heavily affected areas, harvest levels usually return to normal in two to three years as some deer don't get infected and some deer that get infected survive. In the long run, deer populations are not permanently negatively affected by HD. Because deer cannot spread the infection amongst themselves (spread of HD requires a midge fly to transmit the virus), deer populations typically rebound within two or three years, though sometimes it may take longer. HD is considered in the context of a population fluctuation over a few years.
- Chronic wasting disease, on the other hand, is not a disease that comes and goes and allows a population to recover. CWD is transmitted directly from infected deer to healthy deer *and* indirectly via environmental contamination with the infectious agent that causes CWD (shed into the environment by infected deer and viable for years in soil). As a result of the potential for severe, long-term negative effects (as compared to the more predictable short-term effects of HD), many state and federal wildlife management agencies dedicate significant time and resources to their approach to CWD detection and management. Furthermore, once CWD becomes established in a wild deer population, it is very difficult or impossible to eradicate. CWD is considered in the context of many generations of deer and has been shown to cause population-level declines over time.