RT-QuiC is a next generation test for CWD that can amplify prions to allow detection where previously deployed tests could not.

Greater than 40 peer reviewed publications use RT-QuIC to detect prions diseases like CWD.

- Real-time quaking induced conversion or RT-QuIC (pronounced RT-quick) has been used in laboratories to detect prions in biological samples such as urine, saliva and feces from CWD infected deer.
- RT-QuIC is greater than 10,000 fold more sensitive than IHC and ELISA used by diagnostic labs today.
- Increased sensitivity allows for detection of CWD in samples where detection was not previously possible.
- Because levels of CWD are so minute in urine, the RT-QuIC test not only requires amplification for detection of CWD, but also requires the CWD prions to be concentrated prior to testing.

Urine tested using the RT-QuIC test is certified to have no detectable levels of CWD

- No test, including those offered by diagnostic laboratories, can certify that a sample is CWD free. The reported results are either positive or not detected.
- If CWD is present in a sample at a concentration that would be concerning for contact by wildlife the RT-QuIC test will detect it.
- Each RT-QuIC test ensures that a 1,000,000 fold dilution of CWD can be detected. That is well below what would be needed to naturally infect a deer.
- Each RT-QuIC test must meet standards for sensitivity and specificity to be valid.

RT-QuIC testing is another safeguard to ensure that CWD is not spread though the use of natural deer urine products.



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CWD Evolution™

Expert Testing to Ensure Safety of Deer Urine Based Products

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What is Chronic Wasting Disease (CWD)

Chronic Wasting Disease (CWD) is a prion disease affecting deer, elk and moose in North America and Scandinavia. CWD is a neurological disease and is fatal for deer and related species. Scientists do not know exactly how the disease is spread, but theories include animal to animal contact, transport and disposal of infected carcasses onto the landscape, and possibly the long-term environmental build-up and contamination on a landscape through excreta, including saliva, feces, blood and urine from infected live animals over long periods of time. Deer that have succumb to CWD in the wild likely contribute substantially to environmental CWD contamination.

Detection of CWD

Industry and wildlife professionals have been seeking answers to how CWD is spread and reliable ways to detect prions especially in samples where CWD is at such low levels it cannot be detected by using traditional methods.

RT-QuIC testing was developed as a cutting-edge research technique to push the boundaries of detection for prion diseases like CWD. The basis of the test is fundamentally different than any other test currently used to detect CWD. Instead of relying on the stability of prions for detection, RT-QuIC can amplify very minute quantities of CWD to a detectable level.



CWD in Urine

In infected animals, the presence of CWD prions in urine is at such low levels, that traditional testing methods could not detect its presence. With the employment of RT-QuIC Testing Technology detection of CWD in urine was made possible in the late stages CWD.

This type of amplification testing is necessary to detect CWD in urine from deer. No other test previously available could detect CWD content in urine. Studies conclude that CWD levels in urine are exponentially lower than what can be found in other bodily parts and fluids. Even though detection in urine is now possible, the fact remains that infection via urine is highly unlikely. It is estimated that the infectious dose for a deer to get CWD through oral ingestion is approximately 16 oz of infected urine. Said a different way, a single animal would have to consume all 16 oz of urine collected entirely from infected deer.

Considering a population of CWD positive animals inhabiting the same location for many years, it is reasonable to conclude that excreta from those animals could eventually contribute to the contamination of that environment.

When considering commercially available natural urinebased scents, practical aspects of how they are used, and the testing protocols and biosecurity measures taken by responsible collection facilities like those participating in the ATA Deer Protection Program, the risk of those products spreading CWD is virtually zero.



Even so, the scent industry and wildlife disease professionals have continued to research methods that would provide additional confirmation these products are safe.

Developing a Certification Test for Natural Urine-Based Scents

Years ago, the scent industry made a commitment to invest in the advancement of CWD science and research to keep taking steps in the fight against CWD.

CWD Evolution[™], with support from industry leaders like Wildlife Research Center[®] and Tink's[®], have developed the next generation RT-QuIC test for urine. This adds yet another level of confidence that natural deer urine products are safe for wildlife. Today, CWD Evolution LLC uses this same test to ensure that all urine products with the RT-QuIC tested logo have no detectable levels of CWD.



Look for products with the RT-QuIC logo to ensure you're doing your part to prevent the spread of CWD.