

Crows don't digest prions, may transport them to other locations

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Crows fed on prion-infected brains from mice can transmit these infectious agents in their feces and may play a role in the geographic spread of diseases caused by prions, such as chronic wasting disease or scrapie.

The new research published Oct. 17 in the open access journal [PLOS ONE](#) by Kurt VerCauteren from the US [Department of Agriculture](#) (USDA) and other colleagues, shows that prions can pass through crows' digestive systems without being destroyed, and may be excreted intact after ingestion by the birds. According to the authors, their results demonstrate a potential role for the common crow in the spread of infectious diseases caused by prions.

Prions are infectious proteins that cause diseases in humans and other animals. Studies so far have suggested that insects, poultry and scavengers like crows may be passive carriers of infectious prions, but this is the first demonstration that prions can retain their ability to cause disease after passing through the avian digestive system.

The authors fed crows with brain samples from mice infected with prions, and found that the crows passed infectious prions up to 4 hours after eating the infected samples. When healthy mice were injected with the infected crow excretions, all the mice showed signs of prion disease. The authors state that their results support the possibility that crows that encounter infected carcasses or consume infected tissue may have the capacity to transport infectious prions to new locations.

More information: VerCauteren KC, Pilon JL, Nash PB, Phillips GE, Fischer JW (2012) Prion Remains Infectious after Passage through Digestive System of American Crows (*Corvus brachyrhynchos*). PLoS ONE 7(10): e45774. [doi:10.1371/journal.pone.0045774](https://doi.org/10.1371/journal.pone.0045774)

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