

A New Virus Threatens Dogs: Circovirus

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Pet food recalls can really confuse pet owners. Potentially tainted pet food was initially blamed for the death of three dogs that died while boarding at a Norwood, Ohio boarding and grooming facility. Owners of the deceased dogs were upset and rightfully demanded answers from veterinary health officials. What happened next is the stuff of a science fiction horror story, only it's happening right now.

The recalled dog food was quickly eliminated as a culprit by Ohio Department of Agriculture and The Ohio State University. Officials suspected a viral outbreak at the boarding facility. Initial tests for all major pathogens and diseases soon returned negative. Poisons, toxic chemicals and injury were also ruled out. Disease experts were facing a diagnostic dead-end. Before the deaths could be chalked up to bad luck, social media helped uncover some surprising clues and kicked off a nationwide detective hunt.

Awareness by media and social media reports led other Ohio veterinarians to report similar suspicious dog deaths. Canine patients were vomiting, experiencing bloody diarrhea, had high hematocrit values (a blood test), vasculitis (damage to blood vessels), fluid in the lungs, and profound weakness. Many died within days despite aggressive treatment. Other dogs survived after being severely ill. The Ohio state veterinary pathology lab couldn't find a cause. August 2013 was turning into a deadly month for many unfortunate Ohio dogs. The tragedy was that no one knew why.

As the story spread on Facebook and Twitter, infectious disease expert veterinarians learned of the Ohio dogs and began to suspect a new type of virus might be to blame. The problem was, only one lab possessed the tools to diagnose the virus and it was in California.

Veterinarians believed a relatively common type of virus found in pigs and birds known as Circovirus now posed a threat to dogs. An April 2013 paper published in the CDC's [Emerging Infectious Diseases](#) described similar symptoms in a sick California dog. Sadly, the California dog died after being kenneled for three weeks and contracting the virus. Other comparable deaths were investigated and canine *Circovirus* identified. Could this new dog virus be killing the Ohio dogs?

Initial lab results confirmed *Circovirus* in the first Ohio dog tested. Results are pending on other dogs with similar symptoms in the Cincinnati and Canton areas. Of eight dogs reported with vasculitis, vomiting, bloody diarrhea, rapid heart rate, and fluid in the lungs, four died. Officials say it could take weeks to completely determine the exact cause of death and if the Ohio dogs have the same viral strain as the one from California. Good science takes time.

Because this is a new virus for dogs, we don't fully understand how it affects the majority of dogs. We don't even completely know how canine *Circovirus* is spread. Based on initial research conducted at University of California, *Circovirus* seems to be more of a problem as a secondary infection in dogs. Other research suggests that individual animals may be more susceptible to this type of virus due to genetics and other factors. What does this mean for your dog?

Experts urge caution and stress this isn't a national epidemic. If your dog develops sudden vomiting, bloody diarrhea, and acts very tired, have them examined by a veterinarian immediately. Early treatment seems to improve survival chances. Ask about *Circovirus* and if your veterinarian has observed cases with these clinical signs. If so, have them contact their state veterinary office at once. If you kennel your canine, have a frank conversation about any illnesses and what steps the facility takes to ensure safety and sterility. Pay particular attention to fecal wastes. Feces may be key in the transmission of this virus. This is yet another reason immediately picking up your dog's poop is a good idea.

Finally, while I don't want to needlessly spread alarm, I encourage pet parents to monitor social media and veterinary news outlets for further updates. There's going to be a lot of misinformation, sensationalism, and

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false blame on this in the upcoming weeks. If you have any questions or concerns or read somewhere that pickle juice cures *Circovirus*, please ask your vet before taking any action or sharing questionable news. You can bet I'll be watching this situation closely and will provide any new information as it develops.

My hope is that this viral outbreak will prove to be a rare and isolated incident. History teaches us that truly devastating viruses only appear every few decades. I'm confident that in today's social media savvy world, even remote and sporadic cases will be broadcast and we'll be able to prevent widespread illness. My secret hope is we'll determine canine *Circovirus* is really a wimpy virus and reduce it to another trivia question future veterinary students will face on their medical boards, not in their exam rooms. Until then, be vigilant and report any unusual illnesses to your veterinarian.

If you have any questions or concerns, you should always visit or call your veterinarian – they are your best resource to ensure the health and well-being of your pets.