



Circovirus in Dogs FAQ

October 3, 2013

Canine circovirus infections have been documented in dogs with vomiting and diarrhea. The distribution of the virus in the U.S. is not yet known, but dogs infected with circovirus have been reported in California and circovirus may be associated with recent illness and death of dogs in Ohio.

Listen to our [podcast](#) (Sept 23) about the Ohio investigation.

[Guidance for veterinarians](#)

Q: What are circoviruses?

A: Circoviruses are small viruses that have been known to infect pigs and birds. They are also known to survive well in the environment once shed from affected animals. Porcine circoviruses are very common throughout the world. Porcine circovirus 2 can cause postweaning multisystemic wasting syndrome in 2-4 month old piglets, resulting in weight loss, poor growth and high death rates. Although porcine circoviruses were first identified more than 30 years ago, there is still much unknown about the viruses. Circovirus can also infect birds, causing beak and feather disease in psittacine birds (such as parrots, parakeets, budgies and cockatiels), infectious anemia in chickens, and deadly infections in pigeons, canaries and finches.

Q: What is canine circovirus/dog circovirus?

A: The circovirus identified in dogs shares more similarity to porcine circovirus than to the avian circovirus, but it is not the same as porcine circovirus. This canine circovirus was [first reported](#) in June 2012 as part of a genetic screening of canine samples for new viruses ([Kapoor et al 2012](#)). Circovirus was detected in 2.9% of canine sera collected for routine serological testing. In April 2013, a similar virus was detected in a California dog that presented to the UC Davis School of Veterinary Medicine for worsening vomiting (containing blood) and diarrhea. PCR tests on dogs with and without clinical disease indicate a prevalence rate of between 2.9-11.3%. The data suggest that this new virus, either alone or as a co-infection with other pathogens (disease-causing organisms, such as bacteria and viruses), might contribute to dog illness and deaths. However, the authors also reported that circovirus was identified in the stool of 14 out of 204 healthy dogs, suggesting that infection with circovirus does not always result in illness.

There is still much to learn about this newly identified virus, including its role in disease.

Q: Are the dogs in Ohio infected with circovirus?

A: No. Circovirus was suggested as a possible cause of illness and death of dogs in several parts of Ohio in late August/early September 2013, but it is no longer being considered as the primary cause of the illnesses. Circovirus was detected in the stool of one ill dog in Ohio, which is the first time the virus has been identified in Ohio, but this does not mean that circovirus has been confirmed as the cause of any of the recent illnesses. The Ohio Department of Agriculture continues to investigate the illnesses, and this will take time.

Q: Are the dogs in Michigan infected with circovirus?

A: As of October 3, the Michigan Department of Agriculture and Rural Development has been investigating illnesses similar to those observed in Ohio. The investigation will take time, and at this time they are not confirming that circovirus is involved.

Q: How are dogs being infected with circovirus?

A: The route of infection is still unknown, but the basic principles of viral spreading suggest that direct contact with an infected dog or its vomit or diarrhea would present a higher risk of infection. However, many viruses can be spread from animal to animal through the use of shared bedding and equipment or through human contact with an infected animal prior to handling of an uninfected animal. In pigs, circovirus is spread through the manure and through contact with respiratory secretions.

Although some of the dogs showing clinical disease were recently boarded or at doggie daycare facilities, this should not be taken as an indication that this virus is only spread at boarding kennels or that boarding your dog or taking it to daycare will result in infection. Any parent who has taken their child to daycare knows that a high concentration of children in an area can increase the spread of colds and other illnesses; the same thing can happen when dogs are gathered in an area.

Q: Are there other diseases that are similar to circovirus infection?

A: There are many potential causes of vomiting and diarrhea, so the presence of these signs does not mean your dog is infected with circovirus. For example, vomiting and diarrhea can also result from infection with canine parvovirus, canine enteric coronavirus, Salmonella bacteria, canine distemper virus, Campylobacter bacteria, Clostridium perfringens enterotoxin A gene bacteria, and Cryptosporidium and Giardia species (both of which are single-celled parasites). Even a simple "dietary indiscretion," such as getting into the garbage or overeating rich foods or treats, can result in vomiting and diarrhea. Not all of these problems are life-threatening, and many cases of diarrhea and vomiting resolve with simple treatment.

If your dog is showing signs of illness, contact your veterinarian to get the correct diagnosis (including any necessary laboratory testing). Even if it turns out to be something minor, you can have peace of mind knowing that your dog's health is not threatened.

Q: What should pet owners do?

A: If your dog is vomiting or has diarrhea, contact your veterinarian. Dogs with diarrhea and vomiting could have a range of diseases, some of which can be life-threatening unless diagnosed and treated early. Prompt treatment of vomiting and diarrhea, regardless of the cause, gives your dog a better chance of a quick recovery and can also cost you less in the long run – delaying veterinary care can mean that your veterinarian has to treat a dog that's much more sick than he/she would have been if seen earlier, and that costs more. In the small number of cases so far, prompt veterinary treatment was critical to a good outcome for that dog.

Although we still have a lot to learn about this circovirus, there's no cause for panic. We know that dogs infected with circovirus don't always become ill, but we don't know how much of the virus they may shed in their stool or how much risk these dogs present as sources of infection for other dogs. Theoretically, it's possible, and that's one of many reasons why it's so important that you pick up after your own dog and avoid contact with stool from other dogs when possible.

Simple, common sense measures are in order, including the avoidance of contact with ill animals (and if your dog is ill, avoid contact with other dogs until your dog has fully recovered) and cleaning up after your pet passes stool. A healthy

pet is more likely to have a fully functional immune system to fight infections, so keeping your pet healthy with good preventive care is also important.

Q: Is there a vaccine for circovirus?

A: Not at this time. This is a very recent development, and it takes years to develop vaccines and get approval for use in pets.

Q: What should kennels and doggy daycare facilities do?

A: Follow good hygiene and sanitation measures, as you should always do: don't allow ill dogs to mix with others; clean and disinfect areas where ill animals have been, and regularly clean and disinfect all dog areas; and monitor dogs for signs of illness, and immediately report any signs of illness to the dog's owner.

Q: If my dog has circovirus, can I become infected?

A: There is no evidence to date that this virus can be transmitted to you from your dog.

The AVMA would like to thank the [American Association of Veterinary Laboratory Diagnosticians](#) for their assistance in creating this resource.

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