

# Canine Respiratory Mystery

## 4 Things to Know About the Outbreak

### What is CIRCD?

#1

**Canine infectious respiratory disease complex (CIRDC)** is a syndrome of diseases that can be caused by several different—and often highly contagious—bacterial and viral pathogens in which coinfections are common.

### What is the mystery canine respiratory infection?

This infection is part of CIRDC. Clinical signs are frequently mild and self-limiting but some individual cases progress to severe disease and, in instances, death.

#2

### Where it's showing up

Ten states have reported cases, including Colorado, Florida, New Hampshire, Oregon, and Rhode Island. Cases are estimated to be in the thousands nationwide, but there are no official numbers because there's no definitive test for the illness and the signs are so similar to other causes of CIRDC.

#3

### Signs reported

- **Chronic mild to moderate tracheobronchitis** with a prolonged duration of 6 to 8 weeks or longer that is minimally or not responsive to antibiotics.
- **Chronic pneumonia** that is minimally or not responsive to antibiotics.
- **Acute pneumonia** that rapidly becomes severe and often leads to poor outcomes in as little as 24 to 36 hours.



### What's concerning?

Evolution Veterinary Specialists in Lakewood, Colorado, reported that their most severe cases displayed:

- **Purple or cyanotic** mucous membranes.
- **Pulse oximeter in the 80s** (normal is around 95).
- **Elevated heartrate.**
- **No improvement after 3 to 5 days of doxycycline.**



#4

### Possible treatments

- **Antibiotics:** If a bacterial cause is identified or strongly suspected, initial therapy may be based on likely respiratory pathogens and coverage provided by various antibiotics.
- **Hospitalization** (with isolation), provision of **IV fluids, oxygen support, nebulization, coupage**

### Research

Researchers at the University of New Hampshire's (UNH) Veterinary Diagnostic Lab have identified a small portion of the genome of a previously uncharacterized bacteria that may be causing the illness. They believe the bacterium may be host-adapted and may potentially be part of the dog microbiome and has recently developed the capacity to cause disease. They hope identifying the bacterium might help determine the right course of treatment for infected dogs.



### Resources:

- [Canine respiratory mystery: What we know about the outbreak \(NEWStat, Dec. 2023\)](#)
- [2022 AAFP/AAHA Antimicrobial Stewardship Guidelines](#)
- [Worms and Germs blog](#)
- [Canine Respiratory Illness Q&A with Trupanion \(Webinar\)](#)

