

Fears About Mystery Dog Illness May Be Overblown

Most dog parents across the US are aware of the respiratory illness that's received widespread media coverage. Though there is still minimal information available, here's encouragement not to succumb to fear.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Most dog parents across the U.S. are acutely aware of the “mystery” respiratory illness that has received so much media attention in recent weeks
- There is still minimal actionable information available about the illness, but plenty of unproductive fearmongering; thankfully, a relatively balanced article appeared recently that updates the situation and encourages pet parents not to succumb to fear
- The article includes input from several veterinary experts and explains the challenges involved in investigating the illness; veterinarians also offer dog parents common-sense guidance in how to protect their pets

Just like all of you with canine family members, I've been reading and hearing for weeks about a new “mystery” respiratory illness affecting dogs in certain regions of the country.

As of the end of November, cases had been reported in Oregon, California, Colorado, Florida, Georgia, Idaho, Illinois, Indiana, Maryland, Massachusetts, New Hampshire, Rhode Island, Vermont, and Washington,¹ and the standard treatments for **kennel cough** aren't proving very effective.

While I'm certainly concerned and watching for more definitive information on the situation, I'm at the same time reluctant to add to the growing anxiety level around this illness — especially since we don't know what it is, how serious it really is, how to treat it, or how to prevent it.

With that said, a very recent NPR article, written by a reporter, Will Stone, who is also a dog owner, does the best job I've seen to date describing the situation in a balanced manner. The article's headline, “Veterinarians say fears about 'mystery' dog illness may be overblown” even offers a bit of reassurance.²

Experts: 'Mystery' Illness May Not Be a Single Infection

“Reports of respiratory illness afflicting dogs have put many dog owners like myself on edge in recent weeks,” writes Stone. “Social media is filled with increasingly distressing headlines and anecdotes of otherwise healthy pets coming down with a raft of symptoms, everything from a hacking cough to sometimes life-threatening complications.”

None of the experts investigating the illness have been able to identify it, but according to Stone, veterinarians who specialize in infectious diseases believe the new respiratory illness may not be an outbreak of a singular illness at all. There's very little evidence that reported cases share any common pathogen, let alone to an altogether new one.

"It's entirely possible that there are just a ton of different bugs and viruses causing disease in different parts of the country," Dr. Jane Sykes, a professor at UC Davis School of Veterinary Medicine who focuses on infectious disease, told NPR. "We just have to be a bit careful about panicking."

The U.S. doesn't have an effective surveillance system for canine infectious diseases, so it's difficult to track reported cases to try to determine whether anecdotes and "scraps of data" suggest widespread or concerning patterns.

"Two things keep getting mixed up," says Dr. Scott Weese, an infectious disease veterinarian at the University of Guelph's Ontario Veterinary College. "Do we have more disease? And do we have something new? Because those are not necessarily connected."

Weese believes that while it seems certain parts of the U.S. are seeing an increase in canine respiratory illness, it's possible the flood of coverage in all forms of media, including social media, has created the appearance of a nationwide outbreak that may not exist in reality.

"I get an email a couple of times a week saying, 'hey, are we seeing more respiratory disease in dogs?" he says, "But I've been getting that email for like five years."

No Evidence Individual Cases Are Connected

According to Dr. Silene St. Bernard, regional medical director for VCA Animal Hospitals, despite all the coverage of individual cases of respiratory illness in dogs, there's currently nothing "that would indicate there's a national outbreak, anything that would indicate these are all medically connected to each other."

Obviously, the current uncertainty doesn't rule out the possibility of a new pathogen. Researchers in New Hampshire have identified an "odd" bacterium that might be relevant, but they haven't yet been able to link the pathogen to illness in dogs.

Dr. Kurt Williams, director of the Oregon Veterinary Diagnostic Laboratory, tells NPR:

"The three choices are: There is not a new disease out there. There is a disease whose incidence is particularly high right now and it's a known agent. Or there's truly something new and novel out there."

According to Stone, state health officials and medical organizations in over a dozen states report hundreds of cases of an "atypical canine respiratory disease," however, Williams points out that this framing of the situation can give the impression that a clearly defined disease is spreading, when in reality, "We have a very poor understanding of the cases clinically."

The symptom most cases have in common is a persistent cough that doesn't resolve as expected in typical cases of kennel cough. In the worst cases, the dogs develop severe pneumonia that can develop rapidly.

Unreliable PCR Tests, Unnecessary Use of Antibiotics

Dr. Melissa Beyer, who runs South Des Moines Veterinary Center, tells NPR she's not seeing dogs with an unidentified illness dying in high numbers, but like her colleagues in other states, she can't identify the cause(s) of the dogs' illness.

"We've been running respiratory panels to check about 20 different viruses and bacteria," says Beyer. "A lot of them are coming back negative."

The negative panels are what give rise to fears of a new pathogen, but the reality is there are many reasons PCR tests used for canine respiratory illness come back negative, according to Sykes of UC Davis. For example, the sample may be too small or taken from the wrong part of the body. In addition, the levels of pathogen in the bloodstream can vary from day to day; also, the dog's body might have stopped shedding the pathogen by the time the sample was collected.

Even in the case of well-known pathogens, the genetic sequence can be different enough that the PCR test fails to detect it. "For some of these organisms, negative results are even more common than positive test results," says Sykes, who founded the International Society for Companion Animal Infectious Diseases.

The notion that dogs with respiratory illness are resistant to standard treatment is problematic, according to Sykes, because many receive **unnecessary antibiotics** to treat what is actually a viral infection.

"What's actually being said here by veterinarians in these different locations is really that dogs are taking a long time to recover," Sykes says.

'Pathogen Soup'

Sykes suspects the possibility of a "pathogen soup" — a mixture of co-occurring infections that are making dogs especially sick and prolonging their illness and recovery.

Per Weese of Ontario Veterinary College, respiratory diseases in dogs wax and wane, and in the last few years there have been more "dramatic swings" in which outbreaks last longer and spread across broader areas.

To compound the confusion, there's the presence of Bordetella, canine respiratory coronavirus (unrelated to COVID-19), and canine flu in some cases. In addition, dog ownership in the U.S. has increased steadily in recent years, and the holiday season means busier boarding kennels as well as dogs traveling with their families and mingling with other pets.

Pathologists are continuing to collect samples from sick dogs and search for clues. As noted earlier, researchers in New Hampshire have turned up evidence of what seems to be a new bacterium similar to Mycoplasma. They haven't been able to culture it, but they've identified it in samples from sick dogs in NH last year, and sick dogs in neighboring states this year.

Mycoplasmas are small bacteria that lack a cell wall, form biofilms and hide inside cells, making antibiotic resistance a common problem. Mycoplasma causes "walking pneumonia" in humans and may be contributing to the symptoms seen in affected dogs.

"We think this may be a pathogen," David Needle, a pathologist at the New Hampshire Veterinary Diagnostic Laboratory told NPR, "We don't think it itself is responsible for mortalities very often, but it may allow for secondary infections that could cause mortalities."

However, according to Weese, Mycoplasma is commonly found in dogs with and without respiratory illness, so it's way too soon to assume this is behind any of the outbreaks. Williams in Oregon is unconvinced the bacterium is involved in what he's seeing in his state. He has begun examining the lungs of dogs who died from the respiratory illness, and so far, has found acute injury in the small air sacs (alveoli) and bleeding from that into the lungs.

These findings are "a little bit different" from what he normally sees, "So it makes me think, maybe, there's something out there" specific to the Pacific Northwest.

Take Reasonable Precautions, but Don't Live in Fear

For the time being, veterinarians believe it's wise for dog owners to take common-sense measures, "like avoiding contact with sick dogs and making sure your dog is up to date on its vaccine." I assume the vaccines they're referring to are non-cores such as bordetella and canine influenza viruses H3N8 and H3N2.

I generally do not encourage non-core vaccines. You can find more information and my recommendations [**here**](#). The best way to help your dog stay healthy and disease-free (or alternatively, ensure he can bounce back quickly if he acquires a respiratory illness) is to keep his immune system strong and resilient in the following ways:

- Keep him at a **healthy weight**
- Feed a **nutritionally optimal, species-specific, fresh food diet** that includes a variety of fresh fruits and veggies
- Reduce or eliminate her **exposure to toxins**
- Refuse **unnecessary vaccinations**

Common-sense precautions might include being more restrictive with your own dog if there are a lot of sick dogs in your area, or your dog is at high risk for disease. You might want to steer clear of places where lots of dogs congregate, such as dog parks, boarding facilities, and groomers.

"Those are the activities that if you're nervous about exposure, I would avoid because that's where dogs with many backgrounds, many immunization levels and things like that mix," says Dr. Ashley Nichols, president of the Maryland Veterinary Medical Association.

Nichols is seeing an "exponential rise in fear" among some pet owners, who may be skipping routine veterinary exams, worried their dog might catch something at the clinic.

My suggestion for additional support for higher-risk dogs who have more exposure via doggy day cares or boarding environments, includes cordyceps mushrooms, Chinese skullcap, olive leaf, n-acetyl cysteine (NAC), and vitamin E.

Take home message: Don't succumb to fear over this "mystery" illness, which may or may not be a mystery, and may be a combination of different, common respiratory illnesses. Take common-sense precautions with your dog depending on their health and age, but don't "protect" them from living their best life. And, of course, if your pet does get sick, get them seen immediately.

Sources and References

¹ [Reuters, November 29, 2023](#)

² [NPR, December 1, 2023](#)
