

Clues to mysterious new sickness affecting dogs

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A new type of bacterial infection could be the culprit behind a

mysterious canine respiratory illness that has been infecting dogs from coast to coast, New Hampshire researchers say.

Genetic sequencing of samples from 70 infected dogs from New Hampshire, Rhode Island and Massachusetts has revealed a previously unknown bacterium, researchers from the New Hampshire Veterinary Diagnostic Laboratory wrote in an [online report](#).

One of the researchers, [Dr. David Needle](#), described the germ as a "funky bacterium" in an interview with *CBS News*.

"It's smaller than a normal bacterium in its size and in the size of its genome," said Needle, pathology section chief at the University of New Hampshire College of Life Sciences and Agriculture in Durham, N.H. "Long story short, it's a weird bacterium that can be tough to find and sequence."

The illness resembles [kennel cough](#), but doesn't respond to standard medical treatments, the New Hampshire researchers said.

It starts with a cough, runny eyes and sneezing that can last for weeks, but can progress to pneumonia and, in rare cases, death.

All breeds appear to be vulnerable to the illness, researchers said. Evidence suggests it's limited to dogs, and humans cannot be infected.

The researchers now are working with samples that have been received from Oregon, and anticipate more from Colorado, Illinois and other affected states, their post said.

They chose to share results online prior to publishing a research article in hope that the information would help vets treat outbreaks in their communities.

If the new bacterium is the culprit, it could explain why some dogs progress to fatal pneumonia, [Dr. Karl Jandrey](#), a professor of clinical small animal emergency and critical care at the University of California-Davis School of Veterinary Medicine, told *CBS*.

Smaller pathogens have an easier time making it down into the deep parts of the lungs, potentially causing pneumonia, Jandrey said.

The New Hampshire researchers have been trying unsuccessfully to grow the new bacteria in the lab, which is necessary to figure out which antibiotics will work best against it, they told *CBS*.

Based on the bacterium's structure, the antibiotic doxycycline might be effective against it, Needle said.

At least 12 states have reported cases of the respiratory illness, according to *CBS*.

The Oregon Department of Agriculture has received more than 200 case reports from veterinarians since mid-August, according to a Nov. 21 [online post](#) from the Oregon Veterinary Medical Association (OVMA).

"We suggest caution rather than worry," the association said. "The number of cases reported to ODA represents a very small percentage of Oregon's dog population."

Other states with cases of the canine illness include California, Indiana, Washington, Idaho, Georgia and Florida.

The New Hampshire researchers said that people can protect their pets by avoiding contact with other dogs, ensuring that their dog is up-to-date on all vaccinations, and contacting their vet the minute their dog develops a cough or sneeze.

"No specific preventative measures or treatments are known now, and the likely timeline of development/understanding of these is long, so the above measures are the best choice," the researchers said in their report.

People traveling for the holidays should reconsider leaving their pets at a kennel while they're away, particularly if the facility keeps [dogs](#) in close quarters and requires that they share communal water bowls, the OVMA said.

"Just like with other respiratory pathogens, the more contacts your dog has, the greater the risk of encountering a dog that's infectious," the OVMA wrote.

A dog walker or house sitter might be a better option for protecting the family dog while you're away, experts said.

More information: The New Hampshire Veterinary Diagnostic Laboratory has more about the [mystery respiratory syndrome](#).

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