

# Roundworm parasite targets canine eyes

April 16 2015, by Randy Dotinga, Healthday Reporter

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Report says small number of cases reported in the United States.

(HealthDay)—A small number of dogs and cats across the United States have been infected by a roundworm parasite that targets the eye, according to a new report.

While the condition isn't fatal, researchers say vets and owners should be aware of the outbreak and test dogs from areas where infections are widespread.

"Infection can be a serious threat to animals, leading to the loss of vision in some cases," said report lead author Dr. Domenico Otranto, a professor of [veterinary medicine](#) at the University of Bari in Italy.

Otranto said he became interested in the roundworm parasite—known as *Onchocerca lupi*—in 2011 when he was sent a roundworm of that species that had infected the eye of an 8-year-old girl from Turkey.

"This was the first confirmed human case," he said. "At that time this parasite was almost unknown to vets and physicians."

Since 2011, 20 cases have been reported in dogs and two in cats in the United States, Otranto said. But the new report focuses on eight cases in dogs: four from New Mexico, two in Colorado, and one each from Minnesota and Florida.

According to Otranto, the roundworm seems to infect animals and humans who encounter biting insects known as black flies. "These insects live in environments with flowing fresh-water streams," Otranto said. "The risk for the infection increases if dogs are kept outdoors."

Thomas Nolan, a parasite specialist at the University of Pennsylvania School of Veterinary Medicine, has reported on an earlier case of the parasite infecting a dog. He said the roundworm targets the tissue around the eye, causing a mass of swelling that can disrupt vision.

"At this point the dog is brought in to the veterinarian who removes the mass with the worms inside through minor surgery," he said. "The dog is then generally given drugs to attempt to kill any remaining worms."

As for the threat of being fatal, "I doubt this infection would be life-threatening to the dog," Nolan said. "But it certainly could impact the quality of life."

An analysis of the DNA of roundworms that infected dogs in the United States suggests that the parasite possibly traveled to the country from Europe. Otranto said the parasite has been reported in Portugal, Germany, Greece, Hungary and Spain.

One human case has been reported in the United States—a 22-month-old girl whose cervical tract was infected with the parasite, according to the

researchers. It's unclear whether this parasite has infected other humans in the United States, however.

Vets, physicians and pet owners should be aware of the condition, Otranto said, and pets should be tested for larvae if they enter the United States from countries where the parasite is present.

Nolan said that "all dogs would be at risk, although most of the cases in the U.S. are in [dogs](#) from the Southwest or that have visited this region."

The report is published in the May issue of *Emerging Infectious Diseases*.

**More information:** For more about roundworm, visit the [Companion Animal Parasite Council](#).

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Citation: Roundworm parasite targets canine eyes (2015, April 16) retrieved 24 April 2024 from <https://phys.org/news/2015-04-roundworm-parasite-canine-eyes.html>

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