

## Pet Dogs Can Carry Human Norovirus, Study Shows

by [Gretchen Goetz](#) | Jan 20, 2012

While dogs may indeed be man's best friend, it turns out that they also have the ability to harbor one of man's most common enemies - norovirus.

A [study](#) out of Finland has shown that pet dogs can carry human strains of norovirus and pass them on to people in the household.

Researchers at the University of Helsinki's Department of Food Hygiene and Environmental Health took 92 fecal samples from dogs living in households where either the dog or family members had recently experienced vomiting or diarrhea - the most common symptoms of norovirus infection. They found human strains of norovirus (HuNov) in 4 of these samples.

Norovirus is the leading cause of gastroenteritis, or what is commonly thought of as stomach flu symptoms, in the United States. It affects 23 million individuals in the country each year. While most cases resolve within a few days, some can be severe and in rare cases fatal.

Until recently, it was thought that animals did not carry human noroviruses, since "generally species barriers seem to be rather strong for viruses," explains Carl-Henrick von Bonsdorff, co-author of the study and member of the Faculty of Veterinary Medicine.

However, "with the great number and variability of human norovirus strains the idea of animal reservoirs has become more interesting," von Bonsdorff told **Food Safety News** in an e-mailed statement.

The results of this study - published this month in the [Journal of Clinical Virology](#) - show that it is indeed possible for animals to carry human strains of norovirus. In fact, 2 of the dogs whose stool tested positive for human norovirus had even displayed symptoms of infection themselves.

When asked whether this means that dogs might not only carry human noroviruses but actually be sickened by them as well, von Bonsdorff noted that this study cannot answer that question.

"Infection transmission will require more rigorous studies. The study just shows that it is possible," he said.

So where do these dogs come into contact with the virus? Von Bonsdorff says the most likely source is family members who have the disease, specifically small children. Norovirus is most highly concentrated in feces, he explains, but can also be transmitted through saliva and vomit.

This does not mean that dogs can't also pick up HuNoVs outside the home by sniffing, licking or eating contaminated materials, notes von Bonsdorff.

But before you lock up Fido and stop the children from playing with him, keep in mind that the most common path for norovirus transmission is still human to human.

"Viruses are in general rather species specific. It seems very unlikely that the transmission would be as easy between man and dog," says von Bonsdorff.

The next step for studying HuNoVs in animals is to look at whether the virus can multiply within a dog's intestines, or whether it simply passes through the animal.

For now, scientists have proof that dogs are capable of carrying the disease, and can pass it on to their owners.

While von Bonsdorff says it is possible that other animals, such as rodents, may also carry HuNoVs, as of yet there is no hard evidence that this occurs.

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