



Potomac Horse Fever

As summer heats up, so does concern over a serious equine illness: Potomac Horse Fever (PHF). Once considered rare in Canada, PHF is now appearing more frequently prompting veterinarians and horse owners to stay alert.



What Is Potomac Horse Fever?

Potomac Horse Fever (PHF), also known as equine neorickettsiosis or equine monocytic ehrlichiosis, is a serious intestinal disease that affects horses, especially during the warmer months. It was first identified in 1979 near the Potomac River in Maryland, but cases have since been reported across North and South America—including a growing number in Canada.

PHF is caused by a type of bacteria called *Neorickettsia*. For many years, the only known culprit was *Neorickettsia risticii*. However, researchers in Canada and USA have recently discovered a new species, *Neorickettsia findlayensis*, in horses showing signs of PHF.

These bacteria live inside tiny parasitic flatworms (called trematodes) that infect aquatic insects like mayflies, caddisflies, and dragonflies. Horses can become infected when they accidentally eat these insects—often while grazing or drinking from contaminated water sources.

Once inside the horse's digestive system, the bacteria are released and begin to invade the lining of the colon and cecum. From there, they can enter the bloodstream and infect immune cells, leading to symptoms like fever, diarrhea, and in severe cases, laminitis.

PHF is typically a seasonal disease because the insects that carry the bacteria are most active in summer and early fall.

Why the Sudden Rise?

According to Dr. Luis Arroyo from the Ontario Veterinary College, climate change and shifting insect populations may be contributing to the spread of PHF into new regions, including parts of Ontario where it wasn't previously seen. Increased awareness and better diagnostic tools are also helping identify more cases.

Signs to Watch For

PHF can come on suddenly and progress quickly. Common symptoms include:

- High fever
- Lethargy
- Loss of appetite
- Diarrhea
- Colic-like symptoms
- In severe cases, laminitis (a painful hoof condition) or even abortion in pregnant mares

Early detection is critical. If your horse shows any of these signs, contact your vet immediately.

Diagnosis and Treatment

Diagnosis typically involves blood and fecal tests, including PCR testing. Treatment usually includes oxytetracycline, an antibiotic that can be effective if given early. Supportive care like IV fluids may also be needed.

Prevention Tips

Talk to your veterinarian to learn about available vaccines and how well they protect against different strains of PHF, including newer ones found in Canada. Other preventive steps include:

- Turning off barn lights at night to avoid attracting insects
- Covering water troughs and feed bins
- Cleaning up dead insects around the barn
- Avoiding turnout near ponds, rivers or streams during peak insect season

PHF is a serious but manageable disease. With vigilance, early intervention, and preventive care, horse owners can help protect their herds.

Resource Links:

Potomac Horse Fever (PHF) Webinar

<https://www.youtube.com/watch?v=teVDOJxuZ50>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC8118184/>

Arroyo LG, Moore A, Bedford S, Gomez DE, Teymournejad O, Xiong Q, Budachetri K, Bekebrede H, Rikihisa Y, Baird JD. Potomac horse fever in Ontario: Clinical, geographic, and diagnostic aspects. Can Vet J. 2021 Jun;62(6):622-628. PMID: 34219771; PMCID: PMC8118184.