



Histomoniasis

Alternate Names: Blackhead disease.

Species Affected: Galliform birds such as turkeys, chickens, and game birds like partridges, pheasants, and quails.

What causes histomoniasis? Protozoan parasites (*Histomonas meleagridis*) which live inside the cecal worm *Heterakis gallinarum*. (the ceca are part of the chicken intestines). *Histomonas* are “parasites of a parasite”.

How is histomoniasis transmitted? Birds get infected when they eat the eggs of *Heterakis* worms that have *Histomonas*. In their natural cycle, *Heterakis* live inside some species of earthworms, so free ranged chickens that eat earthworms are at higher risk of becoming carriers of both *Heterakis* and *Histomonas*. Turkeys are more sensitive to histomoniasis and can get infected if the environment is contaminated with manure from *Histomonas* carrier chickens.

What are the clinical signs of histomoniasis? In general, chickens are asymptomatic carriers of *Histomonas*, which means that they don't show any signs of illness, however, they contaminate the environment with their droppings.

Turkeys are sensitive to histomoniasis. Signs of illness include reduced appetite, drooping wings, listlessness, unkempt feathers, yellow droppings, and death.

What are the consequences of histomoniasis? Acute disease and death are more common in young turkeys, with mortality up to 80-100%. Illness in older birds shows as a progressive loss of weight with secondary bacterial infections before death.

How is histomoniasis detected? Based on clinical signs, flock history, and lesions observed on the ceca and liver of dead birds. Laboratory testing including histopathology (observation of tissue samples under a microscope) and PCR (Polymerase Chain Reaction, a molecular test to detect genetic material), confirm the presence of *Histomonas*.

How can histomoniasis be prevented? Turkeys should be raised separately from other Galliformes (e.g. chickens and game birds). Infected *Heterakis* eggs survive on the soil for years so turkeys should not be placed on ground previously contaminated by chicken manure. During a histomoniasis outbreak, healthy looking turkeys should be separated from sick birds and placed in a separate pen.

How can histomoniasis be treated? No approved vaccines or treatments are available for histomoniasis. Good management practices including clean water, food and bedding plus appropriate temperature improve the chances of survival.

Is histomoniasis zoonotic (transmitted from animals to humans)?
No

References:

- Beckstead, R. B. (2022, November). *Histomoniasis in poultry - poultry*. Merck Veterinary Manual. Retrieved December 10, 2021, from <https://www.merckvetmanual.com/poultry/histomoniasis/histomoniasis-in-poultry?query=histomoniasis>.