

Pullorum Disease in Poultry

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Pullorum disease, also called *Salmonella pullorum* and bacillary white diarrhea (BWD), is caused by the bacterium *Salmonella pullorum*. Although chickens are natural hosts of *Salmonella pullorum*, other birds can also become infected. There have been reports of infections in turkeys, quail, guinea fowl, pheasants, ducks, pigeons, sparrows, canaries, bullfinches, and parrots. Infection by *Salmonella pullorum* has also been reported in pigs, cattle, cats, dogs, foxes, mink, rabbits, and guinea pigs.

Pullorum disease can be introduced into a flock by wild birds, mammals, and flies. Within a flock, infection is spread by bird-to-bird contact, as well as through cannibalism of infected carcasses, wound contamination, and fecal contamination of feed, water, and litter. More importantly, the bacteria can be transferred through the egg, so chicks hatched from an infected flock can also be infected. A hen that has recovered from pullorum disease typically passes on the bacteria to one-third of her eggs.

Clinical Signs

When hatched from infected eggs, chicks and poults begin to sicken and die within a few weeks of hatching. Affected chicks and poults huddle near the heat source and are weak, with poor appetites and stunted growth. They typically make shrill chirping and peeping sounds. Infected chicks have chalky, white droppings and affected chicks frequently have characteristic white "pasted" vents. Signs of the disease may not appear for the first five to ten days. Most deaths occur in the second or third week of life.

Treatment

Treatment of pullorum disease is not feasible. Recovered birds have a tendency to become carriers of the bacteria. It is best to depopulate a flock that tests positive for *Salmonella pullorum*.

Prevention and Control

To prevent pullorum disease, obtain your birds or hatching eggs from a hatchery participating in the [National Poultry Improvement Plan \(NPIP\)](#). Do not mix NPIP-certified flocks with noncertified birds. Maintain a rigorous biosecurity program.

NOTE Pullorum is a reportable disease. If you suspect your flocks has this disease, contact your state veterinarian.

For More Information

[Pullorum disease and fowl typhoid](#). Tina Savage, University of New Hampshire, and Michael Darre, University of Connecticut.

Fowl typhoid and pullorum disease. The Center for Food Security and Public Health and the Institute for International Cooperation in Animal Biologics, Iowa State University.

The Merck Veterinary Manual. Merck.