Newcastle Disease in Birds: Causes, Signs, Treatment, and Prevention





Often referred to as Avian Distemper or Velogenic Viscerotropic Newcastle Disease, (VVND), Newcastle Disease is one of the most serious of all avian diseases. First identified in 1926 in Newcastle-on-Type in England, the disease was later found in the United States in 1944. Now, the disease has spread to include world-wide avian populations, affecting birds of all ages. It is most prevalent, however, in birds imported from Southeast Asia and Central America.

What causes Newcastle Disease?

Newcastle Disease is caused by a virus (paramyxovirus, of the Group 1 serotype). Especially aggressive, the first widespread outbreak of Newcastle Disease occurred in the United States in southern California. In 1972, infected birds in an exotic aviary spread the infection to chickens on neighboring farms. Before it was over, millions of chickens either died or were euthanized in a successful attempt to control further spread. This outbreak was directly responsible for the USDA's adoption of quarantine systems for imported birds in 1974. Since that time, there has not been another outbreak of similar severity.

How is Newcastle Disease transmitted?

With an affinity for red blood cells, the virus spreads rapidly throughout the body. The virus is highly contagious and spread in droppings and nasal discharge via direct contact, through the air, or on contaminated items such as bottoms of shoes, food, or infected dishes and cages. The virus can also penetrate eggshells that come in contact with infected tissue or food, thereby, infecting the embryo. It can survive outside a host for several weeks in a warm and humid environment and indefinitely in frozen material.

What are the signs of Newcastle Disease?

The incubation period (time from exposure to the development of signs of disease) is 4 to 7 days. In general, signs can include ocular and/or nasal discharge, dyspnea, and bloody diarrhea. Central nervous system signs can also occur, including depression or the