



Virulent Newcastle Disease: Information for Bird Owners

Virulent Newcastle disease (VND), previously known as exotic Newcastle disease and sometimes referred to as Asiatic or Doyle's form of Newcastle disease, is a contagious and fatal disease affecting all species of birds.

Definition: VND is a virulent strain of the Newcastle disease virus and is one of the most serious disease of chickens throughout the world. It is characterized by the lesions produced in the gastrointestinal tract or the brain. In susceptible chickens, morbidity rates approach 100% and mortality rates may exceed 95%.

Host: All birds, both domestic and wild, are susceptible to VND. The mortality and morbidity rates vary drastically between species and with the strain of virus. In poultry, chickens are very susceptible to the disease, while ducks and geese tend to be resistant. Mortality rates in psittacine birds have ranged from zero up to 75% prior to depopulation. Certain psittacine birds, especially Amazon parrots, have been demonstrated to shed VND virus intermittently in excess of one year.

Transmission: Within an infected flock, VND is transmitted by direct contact, contaminated feeding and watering equipment, and by aerosols produced by coughing, gasping, and other disturbances of respiration. Dissemination between flocks over long distances have been due to movement of contaminated equipment and service personnel such as vaccination crews. Movement of carrier birds and those in an incubating stage account for most of the outbreaks in the pet bird industry.

Clinical Signs: There may be considerable variation in the severity of clinical signs, depending on species, age, vaccination, and natural resistance of the birds, as well as the virulence of the VND strain. Certain species demonstrate a period of depression, diarrhea, and loss of appetite. Clinical signs are more pronounced in susceptible chickens. Edema of the tissues around the eye, especially of the lower eyelid, are common. Straw colored exudate may flow from the mouth or nasal openings. Respiratory distress may vary from mild to severe. Clinical signs in turkeys and pet birds are usually mild. Neurologic symptoms, such as twisting of the head and neck (torticollis) and paralysis of the wings and/or legs are commonly seen 10-20 days following onset of clinical signs.



Twisting of the head and neck (torticollis)

Human Health: VND is not a food safety concern; properly cooked poultry products are safe to eat. In rare cases, humans that have exposure to infected birds may get eye inflammation or mild fever-like symptoms. These signs generally resolve without treatment, however, medical care should be sought if symptoms persist. Infection is easily prevented by using standard personal protective equipment.

Reporting: This is a reportable disease under emergency conditions; suspect cases must be reported to CDFA within 24 hours.

To report an unusual number of sick or dead birds, call:

Sick Bird Hotline
(866) 922-2473



Conjunctivitis and edema of the eyelids



Excessive fluids are commonly seen in the respiratory tract



Normal appearing chicken with a pale comb

CDFA Animal Health Branch

Headquarters - (916) 900-5002

Redding District - (530) 225-2140

Modesto District - (209) 491-9350

Tulare District - (559) 685-3500

Ontario District - (909) 947-4462

USDA-APHIS-VS (916) 854-3950 or (877) 741-3690

For more information and updates on VND, please visit:

https://www.cdffa.ca.gov/ahfss/Animal_Health/Newcastle_Disease_Info.html

CDFA Animal Health Branch: www.cdffa.ca.gov/ah

