

# Newcastle Disease

## Information for Bird Owners

October 2002

Update 1

No. 7

Fact Sheet



### DESCRIPTION



Exotic Newcastle disease (ND), also known as velogenic viscerotropic Newcastle disease, occurs in Central and South America, the Middle East, and most of Europe, Africa, and Asia. Exotic ND is one of several pathotypes of ND. After an incubation period of 2-15 days, exotic ND causes extremely high morbidity (sickness) and mortality (death) in chickens and other birds. Some avian species show few clinical signs and may spread disease. Pet birds, especially parrots, may shed virus for more than a year without showing signs. In contrast, poultry ranches may experience up to 100% mortality in unvaccinated flocks and 10-20% mortality in vaccinated flocks. ND can also cause conjunctivitis in humans.

### HISTORY IN CALIFORNIA

ND was first diagnosed in the United States in California in 1950 among chukars and pheasants imported from Hong Kong. The infection, which spread to five poultry farms in Contra Costa County, was quickly eliminated through the destruction of the infected chickens.

A catastrophic outbreak of ND occurred in California commercial poultry from 1971 through 1973. Poor security at a bird importer's premises led to contact between infected parrots from South America and neighboring commercial poultry. The disease spread rapidly within the Southern California commercial poultry population. Vaccination was widely used, but was not effective until aggressive destruction of infected birds and improved biosecurity were in place. The disease was eradicated, but in the process eight Southern California counties were quarantined and 11.9 million birds were destroyed. Eradication efforts cost taxpayers \$56 million and severely disrupted the operations of many producers.

In 1998, ND was introduced into a small flock of game fowl by a bird purchased from a local swap meet. The flock was quarantined and destroyed. Surveillance was completed on all backyard flocks in the area with no further infection detected.

### SIGNS OF DISEASE

- Sneezing, coughing and gasping for air
- Nasal discharge
- Greenish, watery diarrhea
- Depression, muscular tremors, drooping wings, twisting of the head and neck, complete paralysis
- Drop in egg production and thin-shelled eggs
- Swelling around the eyes and in the neck
- Sudden death

### TRANSMISSION

Birds may become infected directly through contact with other infected birds, fecal material, or aerosol over a short distance; or indirectly through contact with contaminated people, vehicles, equipment, insects, and rodents.

### VIRUS SURVIVAL

The virus may survive for several weeks in a warm, humid environment, and indefinitely in frozen material. The virus is rapidly destroyed by dehydration and sunlight, or 1 minute at boiling temperature.

### REDUCE RISKS OF INTRODUCING ND

To reduce the risk of introducing ND into a flock, maintain a biosecurity barrier (physical barrier, personal hygiene, and equipment sanitation) between wildlife, poultry facilities, other commercial avian facilities, and pet birds. Some examples of good biosecurity practices include:

- Permit only essential workers and vehicles on the premises.
- Provide clean clothing and a disinfection procedure for employees and visitors.
- Clean and disinfect vehicles at the farm entrance.
- Avoid visiting other avian facilities.
- Do not keep pet birds or hire employees with birds.
- Protect the flock from exposure to wild birds.
- Control movement associated with the disposal of bird carcasses, litter, and manure.
- Quarantine new additions to the flock. Never allow people or material to move from the quarantined birds to the flock.
- Report signs of disease to your veterinarian and to your CDFA District Office.

## Animal Health and Food Safety Services

For additional information, contact the Animal Health Branch at:

Phone: (916) 654-1447 Fax: (916) 653-2215

Or visit our Web site at <http://www.cdfa.ca.gov>



California Department of Food and Agriculture

Redding District: (530) 225-2140  
Modesto District: (209) 491-9350  
Tulare District: (559) 685-3500  
Ontario District: (909) 947-4462  
USDA-VS Area Office: (916) 857-6170 (877) 741-3690  
**Exotic Newcastle Disease Hotline: 1-800-491-1899**