

## BASICS

Columbid herpesvirus-1 (CoHV-1), also known as pigeon herpesvirus-1, causes inclusion body disease or inclusion body hepatitis in some types of raptors.

The natural hosts of CoHV-1 are domestic and wild pigeons and doves. The virus causes disseminated infections in owls, falcons, and hawks with **MORTALITY** approaching 100%.

**TRANSMISSION** of CoHV-1 among pigeons occurs by direct or indirect contact with nasal secretions, saliva, and feces. Stress associated with breeding, crowded flocks, poor nutrition, and other diseases may increase viral shedding by infected birds. Transmission of CoHV-1 to raptors occurs mainly by ingestion of infected pigeons.

In raptors, CoHV-1 causes depression, anorexia, and sudden death. Raptors infected with CoHV-1 may be found dead in good body condition with **NO PREVIOUS CLINICAL SIGNS**.

Adult pigeons are typically asymptomatic carriers of the virus. Young pigeons, especially racing and fancy breeds, may show **CLINICAL SIGNS** including depression, anorexia, inflammation of eye membranes, difficulty breathing, ulcers in the mouth, and diarrhea. Systemic infections may result in sudden death.

Confirmation of the **DIAGNOSIS** is made by PCR analysis or virus isolation. Eosinophilic viral inclusion bodies may be seen in histologic sections of liver, spleen, and bone marrow.

There is no **TREATMENT** for CoHV-1 infection. Supportive care can be provided to infected birds.

To help **PREVENT** the spread of CoHV-1, pigeons should not be fed to raptors in captivity or rehabilitation centers.



**HIGH  
MORTALITY  
IN  
RAPTORS**

**DIRECT  
CONTACT &  
INGESTION**

**OWLS,  
FALCONS,  
HAWKS, &  
PIGEONS**

## DETAILS

Pigeon herpesvirus, now known as columbid herpesvirus-1, was first identified in domestic pigeons in the US in the 1940s. Since then, it has been reported worldwide and is widespread in North America and Europe.

**SPECIES AFFECTED** The virus causes disease in a variety of birds of prey, including great horned owl, barking owl, powerful owl, prairie falcon, American kestrel, peregrine falcon, and Cooper's hawk. Although the virus can cause persistent mortality in urban great horned owls, it does not impact populations of raptors.

**TRANSMISSION** Spread of CoHV-1 among pigeons occurs year-round as virus is shed intermittently by infected birds. When the virus enters a pigeon flock that has not been previously exposed to the virus, high mortality can be seen. Surviving birds remain subclinically infected and act as carriers of the virus. Transmission of the virus from parent to young

birds may not result in disease because of passively transferred immunity. These young birds will also become carriers of the virus, contributing to the establishment of large populations of infected pigeons.

Raptors are affected most often in the spring when preferred food sources may be limited and they resort to preying on pigeons. Mortality events are often seen in urban and peri-urban great horned owls.

**CLINICAL SIGNS** Birds that survive infection may develop inflammation in the cornea and mucous membranes of their eyes.

Internally, the virus affects the liver, spleen, and bone marrow resulting in acute tissue death.

**PRECAUTIONS AND PREVENTION** CoHV-1 does not infect humans, but people in contact with infected birds should avoid contact with other birds for one week to prevent transmission.



Pigeons are asymptomatic carriers of CoHV-1 and are a source of infection for raptors that prey on infected birds.