



## Introduction

Canine distemper (CDV) is caused by a paramyxovirus. Raccoons, grey fox, and skunks are most affected in the spring and fall. Canine distemper is highly contagious and transmitted through the air and direct contact. It is a hardy virus and can persist in the environment through below-freezing temperatures without a host.

## Species Affected

Canine distemper can affect domestic dogs, wolves, foxes, coyotes, raccoons, some marine mammals, ferrets, mink, skunks, black bears, monkeys, tigers, and lions.

## Clinical Signs

Clinical signs start 10 to 14 days after infection. Infected animals can experience discharge from the eyes and nose and respiratory tract issues including difficulty breathing, coughing, and pneumonia. Distemper can also cause issues within the gastrointestinal system, thickening of the nose and foot pads, as well as neurological symptoms similar to rabies. These can include seizures (jaw snapping and spasms), disorientation, fearlessness, aimless wandering, and aggressiveness.

## Transmission

CDV is transmitted through the air and direct contact. CDV is also shed through urine, feces, and secretions. CDV is a very hardy virus and can persist through cold weather.

## Diagnosis

Canine distemper can be diagnosed with nasal or ocular swabs. It can also be diagnosed via tissue samples.

## Epidemiology

Canine distemper is a highly contagious virus with worldwide distribution. In domestic dogs, the mortality rate is 50% in adults and 80% in puppies. In the 1920's a vaccine for domestic dogs was created and is still used to protect dogs against canine distemper. Wildlife cases typically occur in the spring and summer due to the increase in juvenile animals. In mustelids (mink, ferrets, skunks) the mortality rate is close to 100%.

## Additional Information

[Canine Distemper | Cornell Wildlife Health Lab](#)

Cover Image: USFWS