**Presentation:**

- **Dogs, ferrets** – also coyote, dingo, wolf, fox, mink, skunk, raccoon, panda, lion, cheetah, jaguar, margay, ocelot
- **Generalized distemper** in dogs – lethargy, poor haircoat, dehydration  
  - Respiratory and ocular signs first  
  - Gastrointestinal signs second  
  - CNS signs third (usually 1-3 weeks later, or months)  
    - Seizures – “chewing-gum” seizures to generalized  
    - Myoclonus – rhythmic twitching
- Canine survivors may develop: Hyperkeratosis of footpads, enamel hypoplasia, old-dog encephalitis
- **Distemper encephalomyelitis** may occur in older dogs with no history of systemic disease and with adequate vaccination history.
- **Ferrets**  
  - Papular chin dermatitis, cheilitis with swelling and crusting, perineal dermatitis (may be orange-tinged) – dermatitis is pathognomonic when other symptoms are present  
  - Anorexia, depression, dyspnea, pyrexia, pruritus, mucopurulent ocular nasal discharge

**Test(s) of choice:** If generalized, clinical signs can give presumptive diagnosis  
- Fluorescent antibody – cytologic smears (conjunctival, tonsils, CSF, bone marrow, urine sediment)  
- PCR for CDV – whole blood, serum, CSF  
- RT-PCR of buffy coat, conjunctival, preputial or vaginal swabs

**Rx of choice:** Supportive care, antibiotics for secondary infections, anticonvulsants

**Prognosis:** Guarded to poor – worse prognosis with CNS signs; Ferrets: usually fatal

**Prevention:**
- Dogs: Modified-live canine distemper vaccine
- Ferrets & Weimaraners: Recombinant canary-pox vector vaccine

**Pearls:** Viral shedding begins by 7th day and may persist up to 90 days

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**Zuku Review FlashNotes™**

**Classic Question(s)**

What is the general course of distemper infection in a young unvaccinated dog?

What is a classic initial symptom in ferrets with canine distemper infection?

What measures can be taken to prevent canine distemper infection in dogs and ferrets?

What are 3 possible complications that can occur if a modified-live distemper vaccine is used on a young Weimaraner under 1 year old?