

# *Bordetella bronchiseptica*

*Bordetella bronchiseptica* is a gram-negative bacterium that causes respiratory infections in dogs and cats. The bacterium is spread through oral and nasal secretions and infection may occur by direct or indirect contact.

The site of infection is the respiratory epithelium cilia where the bacteria replicate and produce toxins that inhibit phagocytosis and induce ciliostasis. *B. bronchiseptica* is able to survive in the environment for many weeks and potential zoonotic cases have been reported in people who are immunocompromised.



## Dogs

In dogs *B. bronchiseptica* is the primary cause of infectious tracheobronchitis (ITB) or "kennel cough". Clinical signs of *B.*

*bronchiseptica* infection include rhinitis, mucous nasal discharge and a loud, high-pitched cough.

Dogs living in shelters or kennels are at higher risk of *B. bronchiseptica* infection. *B. bronchiseptica* vaccines have been shown to reduce the clinical signs seen with ITB in puppies.

Cross species infection has been reported, with dogs being shown to transmit *B. bronchiseptica* to cats.

## Reception Hours

Mon-Fri 9am - 5pm

## Contact Us

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## Cats

In cats clinical signs of *B. bronchiseptica* infection range from fever, coughing, sneezing and ocular discharge, which may resolve within 10 days to severe pneumonia (especially in kittens under 10 weeks of age) and cyanosis.

The reported prevalence of *B. bronchiseptica* in cat populations is up to 22%; with lower prevalences reported in household pets and higher prevalences reported in rescue catteries.

## FAQs

### How is it diagnosed?

*B. bronchiseptica* infection in both cats and dogs can be diagnosed by bacterial culture (isolation) or PCR, with serology being of limited use due to the high seroprevalence present in animals.

The Molecular Diagnostic Unit has developed sensitive real-time quantitative PCR (qPCR) assays to detect *B. bronchiseptica* in dogs and cats. The qPCR assays include internal amplification controls to ensure that a valid diagnostic result is produced for every submitted sample.



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