

Bordetella bronchiseptica

- *Bordetella bronchiseptica* is a bacterium associated with a highly contagious respiratory disease in dogs.
- It is one of the leading bacterial causes of “kennel cough” in dogs.
- The disease is spread through direct contact and airborne transmission.
- Signs of infection are typically mild, requiring little treatment other than supportive care. However, in certain situations, kennel cough can cause serious illness and even death.
- Risk of illness can be reduced by avoiding high-risk environments. Your veterinarian may recommend vaccination for your dog.

What Is It?

Bordetella bronchiseptica (*B. bronchiseptica*) is a bacterium that is commonly associated with respiratory disease in dogs. It can also infect cats, rabbits, and, in rare cases, humans. It is one of the most common bacterial causes of canine infectious tracheobronchitis, which is also sometimes called *kennel cough*. *B. bronchiseptica* is highly contagious, easily transmitted through direct contact or the air, and resistant to destruction in the environment.

Signs of Illness

Signs of canine infectious tracheobronchitis typically develop 2 to 14 days after exposure to *B. bronchiseptica*. In mild cases, signs typically resolve within 10 to 14 days. More severe cases, particularly when a subsequent infection has occurred, can require a much longer recovery. Infected animals can continue to shed (spread) the bacterium for months after recovery.

Signs include:

- A dry, “honking” or gagging cough
- Nasal discharge
- Lethargy
- Fever

In healthy adult dogs, *B. bronchiseptica* typically causes no more than a mild illness. In puppies or in dogs with other underlying health issues, however, it can cause severe illness or even death in rare cases.

Diagnosis and Treatment

Although sophisticated testing is available, diagnosis is generally based on a history of exposure to infected dogs or a recent visit to a kennel, combined with the presence of signs of illness.

In mild cases, treatment is generally supportive, as the disease typically resolves on its own unless a subsequent infection occurs. Precautionary antibiotics to prevent subsequent infection may be prescribed. In severe cases, treatment may consist of administration of antibiotics as well as medications to help your pet breathe more easily. Cough medication may also be prescribed if appropriate.

To reduce the risk of disease transmission, many boarding facilities require dogs to be vaccinated for kennel cough before entry.

A harness, rather than a collar, is recommended for leash walking of ill dogs. A traditional collar puts pressure on already sensitive and irritated tracheal tissues and can induce coughing episodes.

Prevention

The term *kennel cough* is a misnomer, as dogs don't necessarily contract the disease as a result of being kenneled. Rather, they become ill because kennels can be stressful environments for some dogs, and stress can suppress the immune system, increasing susceptibility to disease. Also, kennel conditions (such as group housing) can make it easier to spread infectious organisms, such as *B. bronchiseptica*. Any place where large numbers

Common Conditions

of dogs gather together increases the risk of disease transmission.

Vaccination is the best way to protect your dog from illness associated with canine infectious tracheobronchitis, particularly if your dog frequents kennels, groomers, dog shows, or dog sporting events. Although the *B. bronchiseptica* vaccination is not

mandatory for every dog, it may be recommended in dogs whose lifestyle increases their risk of exposure to this organism. An intranasal *B. bronchiseptica* vaccine is available in addition to the traditional injectable vaccine. Ask your veterinarian whether vaccination is recommended for your pet and, if so, which type is best for your pet.