

Veterinary Fact Sheet

Frequently Asked Questions - Kennel Cough

This FAQ explains the importance of appropriate identification and management of Kennel Cough in greyhound racing kennels.

What is Kennel Cough?

Kennel Cough, or Canine Infectious Respiratory Disease Complex (CIRDC), is a highly contagious disease in dogs, caused by a number of upper respiratory viruses (including canine parainfluenza virus) and bacteria (usually *Bordetella bronchiseptica*). A table of the infectious agents which can cause Kennel Cough is given at the end of this document. Diagnostic testing performed via your veterinarian can accurately confirm the infectious agent to tailor appropriate treatment and prevention.

How do dogs get Kennel Cough?

Kennel Cough is spread as droplets in the air from a coughing dog to a healthy dog that come into close proximity. Once a greyhound has inhaled the infection, it usually takes between five and seven days for symptoms to appear. It is important to note that even after coughing has ceased and your greyhound appears well, it may remain infectious for up to three months.

What are the symptoms of Kennel Cough?

The symptoms of Kennel Cough include:

- runny nose
- sneezing
- dry, hacking cough

How long does Kennel Cough last?

Depending on the general health of your greyhound, the exact infectious agent(s) associated with the disease, and your greyhound's vaccination status, Kennel Cough can last from a few days to several weeks.

Can Kennel Cough be prevented?

Annual vaccination against *Bordetella bronchiseptica* and canine parainfluenza virus (part of the C5 vaccination) can aid in the prevention of Kennel Cough outbreaks and help to reduce the incidence and/or severity of the disease in racing kennels. Although Kennel Cough is often caused by a combination of viruses and bacteria, it is often the *Bordetella bronchiseptica* component that causes the severe cough, and, through that coughing, facilitates the spread of disease.

Vaccination to prevent the disease is especially important because dogs with Kennel Cough can continue to spread the infection for up to three months after their symptoms have disappeared. Kennel Cough vaccinations can be obtained through your veterinarian in injectable, intranasal (up the nose) or oral forms. The intranasal and oral vaccinations can be far more effective in preventing the spread of Kennel Cough, as they help the immune system react more rapidly than the injection. This is because the intranasal and oral vaccines induce an immune response in the mucus membrane

lining of the nasal and oral passages, the first line of defence, reducing the likelihood that the viruses and bacteria can gain entry into the animal.

Please note that for Racing Rules, the required C5 vaccination can be given in any combination (though the intranasal Kennel Cough vaccination is recommended). The injectable *Bordetella bronchiseptica* vaccine is NOT accepted for entry to GAP Victoria however. Options for GAP are therefore **either** C3 + the intranasal Kennel Cough vaccine **or** C4 + oral *Bordetella bronchiseptica*. For entry into GAP the C3 can be given up to 2½ years prior, but because immunity levels for Kennel Cough wane rapidly compared to those for other infectious diseases, and because many greyhounds from across the state are mixing in close proximity, the Kennel Cough components must have been administered within the last 6 months. There are different intranasal and oral Kennel Cough vaccinations available, speak to your veterinarian about your options. Further information regarding vaccination can be found in the *Greyhound Vaccination Requirements Fact Sheet*¹.

Are there any other ways to protect my dog from Kennel Cough?

Maintaining good biosecurity is key to preventing Kennel Cough from entering your kennels. New greyhounds on the property should be quarantined on arrival for 7-14 days to ensure they are not showing any signs of Kennel Cough or incubating the disease at time of arrival. For further information, refer to the *Greyhound Fact Sheet FAQ Biosecurity for Participants*².

My greyhound has Kennel Cough, what do I do?

Kennel Cough can spread rapidly through kennels so early recognition and action can help prevent other greyhounds from becoming infected. The sick greyhound should be immediately isolated from all other dogs on your property. Greyhounds in contact with affected greyhounds should be quarantined and monitored closely for symptoms.

The kennel area where your sick greyhound was being kept should be completely disinfected with hospital grade disinfectant. Remember, the disease travels from dog to dog through droplets in the air, so the whole kennel facility should be disinfected and all bedding, drinking and feeding utensils, and lures washed in hot, soapy water. Scrubbing is important to breakdown the surface of infection droplets and prevent spread. Any outdoor housing (e.g. undercover kennel areas in day yards etc) should also be disinfected. In addition, ventilating your kennel building (opening doors at either end to allow fresh air in) will also help reduce disease spread. For further information on good hygiene practices, refer to *Greyhound Fact Sheet Frequently Asked Questions: Greyhound Husbandry (Part 1): Facility Design*³ and *(Part 2): Sanitation*⁴.

Your veterinarian can provide you with information about treatment, isolation/quarantine and vaccination options for the affected greyhound(s) and any other dogs on your property. Greyhounds which become unwell in themselves, are lethargic, anorexic or have severe and/or persistent coughing (>24 hours) should be seen by your veterinarian. Diagnostic testing performed via your veterinarian can accurately confirm the infectious agent to tailor appropriate treatment and prevention, which can reduce unnecessary or ineffective treatments.

My greyhound is developing more severe respiratory symptoms, what do I do?

Some respiratory diseases are more serious and can cause significant damage to the lungs including

severe pneumonia such as that caused through Canine Haemorrhagic Pneumonia (CHP). CHP is more serious and manifests as acute pneumonia, lethargy, fever, cough, increased or difficulty breathing, and sudden death. Where these cases with more severe clinical signs develop, you must seek immediate veterinary attention as the disease is often fatal, so urgent medical attention is required including intravenous antibiotics and fluids.

CHP does not generally progress from Kennel Cough and can occur in a kennel with or without Kennel Cough, but the risk factors for both diseases are similar. CHP is caused by a bacterial infection of *Streptococcus equi zooepidemicus* or *E. coli* in the lower respiratory tract (also zoonotic diseases). The morbidity due to CHP is low and typically only one case in a group of greyhounds, but mortality is high at between 50 to 100%. Response to treatment is usually rapid where started without delay and these recover fully and return to racing. However, cases of severe pneumonia may result in scarring of lung tissue that may affect oxygen exchange in a high-performance athlete. Maintaining a current Kennel Cough vaccination will reduce the risks of CHP but will not prevent the disease.

My greyhound has Kennel Cough, can I use my own medicine?

No. Always seek veterinary advice prior to administering any medication, including cough medicines. Every year several greyhounds test positive to cough suppressants (antitussives) or expectorants generally purchased over the counter at a pharmacy. A cough suppressant may delay recovery in the case of a productive cough. In some cases, the prohibited substance given will remain in the system for several weeks, e.g. pholcodine has an extremely long half-life and is eliminated very slowly.

Further information:

Greyhound Vaccination Requirements Fact Sheet

¹<https://greyhoundcare.grv.org.au/wp-content/uploads/2019/10/GRV-Vaccinations-Fact-Sheet-211019.pdf>

Greyhound Fact Sheet Frequently Asked Questions: Biosecurity for Participants

²<https://fasttrack.blob.core.windows.net/fasttrackpublic/stewardsHearing/2020/biosecurity%20information%20for%20participants%20faq%2028.02.20b3d53131-1338-4ce0-a2e3-bfad15faade2.pdf>

Greyhound Fact Sheet Frequently Asked Questions: Greyhound Husbandry (Part 1): Facility Design

³[https://fasttrack.blob.core.windows.net/fasttrackpublic/stewardsHearing/2020/greyhound%20husbandry%20\(part%201\)%20facility%20design%20faqs%20\(1\)ada4b046-bb6b-4674-a08b-6f1bd3326e2d.pdf](https://fasttrack.blob.core.windows.net/fasttrackpublic/stewardsHearing/2020/greyhound%20husbandry%20(part%201)%20facility%20design%20faqs%20(1)ada4b046-bb6b-4674-a08b-6f1bd3326e2d.pdf)

Greyhound Fact Sheet Frequently Asked Questions: Greyhound Husbandry (Part 2): Sanitation

⁴[https://fasttrack.blob.core.windows.net/fasttrackpublic/stewardsHearing/2020/greyhound%20husbandry%20\(part%202\)%20sanitation%20faqs%20\(1\)9bb26c81-fb27-451c-99a2-54afd003a133.pdf](https://fasttrack.blob.core.windows.net/fasttrackpublic/stewardsHearing/2020/greyhound%20husbandry%20(part%202)%20sanitation%20faqs%20(1)9bb26c81-fb27-451c-99a2-54afd003a133.pdf)

Or contact GRV Veterinary Services at vets@grv.org.au

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Table 1: Kennel Cough – Most common infectious agents (includes those not currently in Australia) that can be diagnosed on PCR respiratory panel.

Agent	Classification	Transmission	Symptoms	Diagnosis	Susceptible to disinfection	Treatment	Preventable by vaccination?
Adenovirus-2	Virus	Direct contact between infected dogs shedding virus in secretions	Typical signs of Kennel Cough when involved in disease. Can rarely infect a sole agent causing tonsillitis.	Usually based on symptoms. Swabs from nose or throat and PCR. Results may not always correlate with presence of disease	Yes – use hospital grade disinfectants.	Antibiotics will not treat viral infection but may be needed for secondary bacterial infection.	Vaccination available and required under Greyhounds Australasia Rules and Code of Practice
Canine Herpesvirus Type 1	Virus	Aerosol, direct contact or contaminated material	Sudden death in puppies. Cough and respiratory signs may affect the eyes in adult	Swabs from nose or throat, and performing PCR (respiratory panel)	Yes – use hospital grade disinfectants.	Treatment is not usually effective. Preventative measures should be taken.	No vaccine is available
Canine Influenza Virus (H3N8) and (H3N2)	Virus, exotic to Australia	Aerosol, direct contact or contaminated material	Mild infection, with a cough that persists 1-3 weeks. Pneumonia, and secondary bacterial infection can occur.	Swabs from nose or throat, and performing PCR (respiratory panel)	Yes – use hospital grade disinfectants.	Supportive care. Antibiotics may be needed for secondary bacterial infection.	Vaccine is available in USA, but not in Australia
H1N1 Influenza Virus	Virus	Aerosol, direct contact or contaminated material, generally low numbers of human to dog transmission	Uncommon however, manifests as normal flu	Swabs from nose or throat, and performing PCR (respiratory panel)	Yes – use hospital grade disinfectants.	Supportive care. Antibiotics may be needed for secondary bacterial infection.	Human vaccines are available, but not used as only isolated cases in dogs previously.
Canine Distemper Virus	Virus	Primarily aerosol transmission (airborne) but can be spread in other body secretions	Haemorrhagic diarrhea, vomiting, anorexia, depression and dehydration	Samples from eyes, discharges and performing PCR (respiratory panel)	Yes – use hospital grade disinfectants. Does not survive in warm or dry environments, can survive in cold.	Supportive care and fluid therapy, antibiotics may be needed for secondary infection.	Vaccination available and required under Greyhound Australasia Rules and Code of Practice
Canine Respiratory Coronavirus	Virus	Aerosol, direct contact or contaminated material	Can cause Kennel Cough symptoms alone or in combination with other agents.	Usually based on symptoms. Swabs from nose or throat and PCR. Results may not always correlate with presence of disease.	Yes – use hospital grade disinfectants.	Antibiotics will not treat viral infection but may be needed for secondary bacterial infection.	No vaccine is available

Canine Parainfluenza Virus	Virus	Aerosol, direct contact or contaminated material	Limited to dry cough and nasal discharge if only agent implicated, multiagent infections more common and clinical signs can vary	Usually based on symptoms. Swabs from nose or throat confirm via PCR.	Yes – use hospital grade disinfectants.	Antibiotics will not treat viral infection but may be needed for secondary bacterial infection.	Vaccination available and required under Greyhound Australasia Rules and Code of Practice
Bordetella bronchiseptica	Bacteria	Aerosol transmission or direct contact.	Typical signs of Kennel Cough. May progress to pneumonia and result in breathing abnormalities and more severe illness.	Swabs from nose or throat and PCR, or a tracheal wash. May require a culture and sensitivity swab to direct therapy.	Yes – use hospital grade disinfectants.	Antibiotics may be required.	Vaccination available and required under Greyhounds Australasia Rules and Code of Practice
Mycoplasma	Bacteria	Most commonly aerosol but can occur via direct contact.	Rare to see illness but can cause nasal discharge. Can cause disease in combination with other agents.	Swabs from nose or throat and PCR, or a tracheal wash. May require a culture and sensitivity swab.	Yes – use hospital grade disinfectants.	Antibiotics can treat mycoplasma.	No vaccine is available
Streptococcus equi subs. zooepidemicus	Bacteria	Aerosol, direct contact between infected dogs or contaminated material from secretions	Starts as moist cough and fever then escalates to show hemorrhagic nasal discharge. Sudden death can occur	Swabs from nose or throat or tracheal wash and PCR. May require a culture and sensitivity swab.	Yes – use hospital grade disinfectants.	Antibiotics can treat <i>S. zooepidemicus</i> but recent cultures resistant to clindamycin and lincomycin.	No vaccination. However, vaccination against Kennel Cough may reduce the severity of clinical signs.