

Aspiration Pneumonia in Dogs

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Aspiration pneumonia happens when gastrointestinal contents have been inhaled into your dogs' lungs. This results in a secondary inflammation and infection of the lung. Due to this inflammation, excessive fluid and mucus accumulates within the lower airway, causing difficulty breathing. Aspiration pneumonia is typically a life-threatening emergency that warrants an immediate trip to your [veterinarian](#) or emergency veterinarian.

What could cause my dog to have aspiration pneumonia?

Dogs that develop aspiration pneumonia typically have a history of^{1,2}:

- Recent [anesthesia](#) or sedation
- [Vomiting](#)
- A diagnosis of an underlying medical condition that predisposes the dog toward aspiration
- Neurologic problems

Medical conditions that make a dog more likely to aspirate vomitus into their lungs include^{1,2}:

- [Laryngeal paralysis](#)
- [Megaesophagus](#)
- Persistent right aortic arch (seen in [puppies](#))
- Congenital esophagus problems
- Gastrointestinal disease

Also, if your dog had recent sedation or anesthesia for surgery, has an underlying medical condition that predisposes him to aspiration or gets sick after vomiting, he may have aspiration pneumonia. Clinical signs of aspiration pneumonia include:

- [Not eating](#)
- [Coughing](#)
- [Fever](#)
- [Lethargy](#)
- Panting

- An increased respiratory rate
- Exercise intolerance
- Open mouth breathing
- [Noisy or wet breathing](#)
- Blue-colored gums
- Stretching of the neck out to breath
- Weakness
- [Collapse](#)

Diagnosis of aspiration pneumonia

The diagnosis of aspiration pneumonia in dogs typically starts with a thorough physical examination by your veterinarian (including careful auscultation [listening to internal body sounds] with a stethoscope for abnormal lung sounds). Additional tests to diagnose aspiration pneumonia include:

- Chest [x-rays](#)
- Abdominal x-rays (to look for the cause of vomiting)
- Baseline blood work to make sure the [kidneys](#), [liver](#) and other organs are working appropriately and to see if the white blood cell count is elevated
- Pulse oximetry or an arterial blood gas to measure the oxygen level within the lungs or blood.*

Sometimes, a transtracheal wash or endotracheal lavage is necessary to diagnose the underlying bacterial infection within the lung. This is a "fluid wash" where fluid is flushed into the lung and then taken back for culture testing. This is often important to help rule out other causes of pneumonia, such as other bacterial causes (e.g., kennel cough pneumonia secondary to *Bordetella bronchiseptica*), fungal causes (e.g., *Blastomycosis*), or even [cancer](#).

Treatment of aspiration pneumonia

If you notice any of the clinical signs of aspiration pneumonia, immediate treatment at your veterinarian is necessary. Treatment includes oxygen therapy, intravenous (IV) catheter access, IV fluids, and IV antibiotics. Additional therapy may include:

- Anti-vomiting medication (e.g., maropitant)
- Nebulization and coughage (your veterinarian will explain)

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- Lung expanders (e.g., bronchodilators)

Once your dog is more stable, diagnostics such as blood work and x-rays should be performed.

Treatment should not include diuretics (e.g., water pills) that can dehydrate the patient or cough suppressants (which can prevent the pus in the lungs from being coughed up). Also, drugs that suppress the immune system (e.g., cyclosporine, prednisone) typically should not be used as they can prevent the body from fighting the infection within the lung.

Once a dog can breathe without the support of oxygen therapy, treatment at home includes antibiotic therapy for 3-5 weeks. Frequent veterinary rechecks should be performed to make sure the pneumonia is resolving – this will include recheck of chest x-rays approximately once a week for several weeks. Oral antibiotics should be continued for one week past the resolution of abnormal x-ray patterns.

Thankfully, the prognosis for aspiration pneumonia is good, with an average 77-81.6% survival rate^{1,2}. However, this can be a significant complication of even elective [surgery](#), and can add significant costs due to hospitalization and treatment.

Questions to ask your veterinarian:

- How well is my dog oxygenating?
- Does my dog need oxygen?
- Does my dog need to be referred or transferred to an emergency clinic or specialty hospital for oxygen?

If you have any questions or concerns, you should always visit or call your veterinarian -- they are your best resource to ensure the health and well-being of your pets.

References:

1. Kogan DA, Johnson LR, Sturges BK, et al. Etiology and clinical outcome in dogs with aspiration pneumonia: 88 cases (2004-2006). J Am Vet Med Assoc 2008;233:1748-1755.

2. Tart KM, Babski DM, Lee JA. Potential risks, prognostic indicators, and diagnostic and treatment modalities affecting survival in dogs with presumptive aspiration pneumonia: 125 cases (2005-2008). J Vet Emerg Crit Care 2010;20(3):319-329.