

## Dr. Justine A. Lee, DVM, DACVECC

Justine has more than 18 years of experience in the veterinary industry and is a board-certified emergency critical care veterinary specialist and toxicologist as well as the CEO and founder of Vetgirl. She is also a founding member of IDEXX's Pet Health Network team.

After summiting Mt. Kilimanjaro earlier this year, I'm much more empathetic to patients that have breathing problems due to oxygen starvation. It's a miserable – almost inhumane – the feeling of struggling to breathe.

### Difficulty breathing is not the same as a shortness of breath

Dyspnea, which means [difficulty breathing](#), occurs when a pet is having the feeling of shortness of breath. The true term dyspnea shouldn't be confused with tachypnea which means an increased respiratory rate.

Semantically there's a difference between these two words. When you go jogging with your dog, your dog is tachypneic after the run. In other words, he's panting and has an increased respiratory rate; however, that doesn't mean he's having difficulty.

### How do I know if my dog or cat is having difficulty breathing or shortness of breath?

As a pet guardian, you have to be able to observe the difference between dyspnea and tachypnea, because dyspnea is a life-threatening [emergency](#). Most of the time pets are tachypneic first, which can serve as your first clue that dyspnea may be on the way.

What signs does a pet show when they are having difficulty breathing? Clinical signs differ slightly between [dogs](#) and [cats](#):

#### Cat signs include the following:

- An increased respiratory rate > 40 breaths per minute (bpm)
- Hunched over in sternal
- Hiding
- Coughing (which sounds like "hacking" up a hairball)
- Open mouth breathing (unless it's a stressful

event like a car ride, this is always abnormal as cats always prefer to breathe through their nostrils)

- Blue-tinged gums
- Foam or froth coming out of the mouth

Dog signs include the following:

- Constant coughing, especially at night
- Exercise intolerance (for example, and most notably, when you take them for a walk)
- An increased respiratory rate > 40 bpm
- A change in bark, where it sounds more hoarse
- Anxiety, restlessness, pacing
- Constant panting
- Stretching the neck out to breathe
- Sitting up to breathe, with the front legs/elbows spread out (like a English bulldog stance) to breathe
- Using the abdomen to breathe better (you'll notice the sides of the belly heaving in and out more)
- Blue-tinged gums
- Foam or froth coming out of the mouth

Note that this list of signs isn't all-inclusive, but if you notice any of these signs, a visit to the veterinarian or emergency veterinarian is a must.

### Why is my dog or cat having difficulty when breathing?

Difficulty breathing can typically be linked to the following anatomical locations in the body:

- Upper airway (i.e., the throat, larynx, or pharynx area)
- Lower airway (i.e., the trachea and lungs)
- Pleural space (i.e., the area surrounding the lungs)
- Lung parenchyma (i.e., the lungs)
- Chest wall (i.e., the ribs and associated muscles)
- Diaphragm

Look-a-likes are problems that often make it look like your pet is having difficulty breathing and may include severe pain, abnormal oxygen levels in the red blood cells, [stress](#), hyperthermia, metabolic abnormalities, drugs, neurologic problems, shock, etc.

Assuming the issue isn't a look-a-like, causes of difficulty breathing in dogs and cats include the following:

- [Asthma \(in cats\)](#)
- Infectious diseases (e.g., [kennel cough pneumonia](#), [canine influenza](#), [upper respiratory infections](#), etc.)
- A problem in the pharynx or upper airway (such as a polyp growing in the oropharynx in young cats, or a cancerous growth growing in the airway in dogs or cats)
- Heart failure
- [Chronic bronchitis \(in dogs\)](#)
- [Cancer](#)
- Metabolic problems (e.g., gastrointestinal problems resulting in a low protein in the body and fluid accumulation in the chest and abdomen, kidney failure, etc.)
- [Laryngeal paralysis](#), which is a narrowing of the airway (predominantly in dogs)
- [Pneumonia](#) (which can be due to aspiration or inhalation of vomit into the lungs, or infectious causes like bacteria or fungal infections within the lung)
- Bleeding into the lung (often seen in dogs secondary to getting into anticoagulant [mouse and rat poison](#))
- Trauma (e.g., lung bruises [pulmonary contusions], abnormal air leaking into the chest cavity [pneumothorax], rib fractures, a diaphragmatic hernia [tear in the diaphragm resulting in abdominal organs entering the chest cavity])
- Pulmonary embolism (e.g., a blood clot to the pulmonary vessels that results in sudden death and difficulty breathing)
- Numerous other causes

## How will my veterinarian help my dog or cat to breathe?

If your pet has difficulty breathing, diagnostic tests and treatment that your [veterinarian](#) may perform include the following:

- Oxygen therapy
- Life-saving stabilization
- Possible IV fluids
- [Medication](#) to help your pet breath better (which may include bronchodilators [lung expanders], steroids [to reduce inflammation from asthma], diuretics [to remove water from the lung], etc.)
- Blood work (to evaluate the white and red blood cells, platelets, kidney and liver function, electrolytes, and clotting ability)
- Monitoring of the blood oxygen levels (e.g., with a pulse oximetry [a device that non-invasively monitors how much oxygen is being carried by the red blood cells] or an arterial blood gas [a sample of the blood from the artery])
- Chest [x-rays](#) (to look at the appearance of the trachea, ribs, lungs, diaphragm, etc.)
- Abdominal x-rays (to rule out other underlying problems in the abdomen)
- An electrocardiogram (to look at the rhythm of the heart)
- Echocardiogram (an ultrasound of the heart to rule out underlying heart disease)

## What is the prognosis for difficulty breathing?

Unfortunately, the prognosis for survival from difficulty breathing varies with what the underlying problem is, financial constraints (which may limit treatment options), and severity of the disease. In the case of trauma or bleeding into the lungs from mouse and rat poison, the prognosis is better, as long as prompt, aggressive therapy and treatment can be initiated. With certain diseases like pneumonia, the prognosis is fair with treatment but with cancer, the prognosis is poor to grave.

When in doubt, seek veterinary attention and a full work up as soon as you notice any trouble breathing. Keep in mind that pets often don't show clinical signs until those signs are very severe, and any signs listed above warrant a trip to the veterinarian. The sooner you notice a problem, the sooner we can treat it and potentially the better the outcome.

*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.*