



Cough: What, when and why?

WHAT IS COUGH?

Cough is a wonderful natural reflex that protects your pet's lungs. Every time a potential "offender" (foreign bodies, smoke, dust, etc.) penetrates your pet's airways, this reflex pushes it out with a forceful and loud expiration called "cough." To improve this protective mechanism, coughing teams up with another defensive system called the "mucociliary escalator" which is formed by mucus (a slimy substance that entraps small particles like bacteria and viruses) and cilia (which are tiny, hair-like projections in the respiratory tract) that beat constantly in order to move mucus and debris up and out of the respiratory tree, in order to protect the lung from infection or irritation.

WHEN DOES COUGH BECOME A PROBLEM?

Occasional coughing is hardly ever a problem and a few isolated coughing episodes during the day can be completely normal. However, if cough becomes persistent and starts affecting your pet's quality of life by interfering with normal daily activities, like eating, drinking, exercising, and sleeping, a visit to your veterinarian is recommended. A persistent cough can also indicate an underlying disease and can potentially spread infections, which might be important if you have other pets in your household. Please note that transmission of infectious diseases from pets to humans by coughing is extremely rare.

WHAT ARE THE CAUSES OF PERSISTENT COUGHING?

The most common cause of coughing in young dogs and cats is infectious diseases of the upper airways, like "kennel cough" in dogs and "cat flu" in cats. The onset of this cough is usually sudden, but tends to be a self-limiting condition, comparable to a human cold. Only occasionally this cough persists for more than a few weeks. Another common cause of cough in cats is "feline asthma." Asthma can occasionally be accompanied by laboured breathing caused by bronchospasm, which is an abnormal contraction of the smooth muscle of the bronchi. This condition requires prompt medical attention by your veterinarian. In middle age and geriatric patients, cough can be caused by degenerative conditions, such as tracheal and bronchial collapse (which more frequently affects small and toy-breed dogs) or chronic bronchitis. Chronic bronchitis is a chronic inflammation of the airways accompanied by excessive mucus production and there seems to



be an increased prevalence in some canine breeds, such as Terriers, Labradors, Golden Retrievers, Springer Spaniels, and Cocker Spaniels. Although cardiac disease is often reported as a primary cause of coughing in dogs, this is not entirely accurate, since advanced cardiac disease can aggravate underlying airway diseases, rather than causing cough directly. In older patients, lung tumours can certainly be a cause of coughing but this is usually accompanied by other signs, like lethargy, weight loss and difficulty breathing.

WHAT TESTS ARE NEEDED?

A thorough physical exam is usually sufficient to identify the primary cause of persistent cough and conservative management may be sufficient to alleviate the symptoms in most cases (as happens in most people with a cold). However, when needed, your veterinarian may recommend a blood test, a faecal exam or chest X-rays. In some selected cases, advanced diagnostic tests or specialist referral may be discussed.

WHAT TREATMENT CAN BE USED?

If coughing is persistent, your veterinarian will try to identify and eliminate the underlying cause. Coughing should not be suppressed unless it is interfering with the quality of life of your pet. Several non-pharmacological interven-



tions can be considered initially for the management of persistent cough:

1. Avoidance of irritants:

Cigarette smoke, dust, sprays from deodorants, perfumes and house cleaning products are all potential irritants. If present in the house, carpets should be vacuumed frequently. Cleaned cotton sheets should be used to cover the pet's bed and changed frequently.

2. Avoidance of excessive, strenuous exercise in dogs:

Gentle and long walks are more indicated than fast short runs. Light exercise can assist in dislodging bronchial mucus and helps open small airways by promoting increased lung volumes associated with a standing position. A harness should be worn instead of a collar when the dog is walked on a leash.

3. Weight control:

Fat tends to accumulate in the chest and reduces the lung volume. This can cause compression of the airways and stimulate coughing. Weight reduction will improve respiration, exercise capacity, and cardiovascular functions with dramatic results.

4. Relief of airway obstruction:

Nebulisation favours expectoration of the mucus from the deeper airways, bronchi, and trachea because it thins and lubricates the irritated respiratory tract. Cool-mist ultrasound nebulisers are available in many health and beauty shops and they can be activated overnight in the room where the animal sleeps. During, or immediately after, nebulisation the owner can perform "coupage." This manoeuvre seems to dislodge some of the deeper secretions and helps them move into the airways, so that the mucus can be removed from the lung tubes.

If your pet does not improve following the above conservative interventions, pharmacological treatment (e.g. inhaled steroids, antibiotics, antitussives) should be discussed with your veterinarian.

This handout provides a general overview on this topic and may not apply to all patients.

Please do not hesitate to contact us if you require any additional information (www.cardiospecialist.co.uk)