



## FELINE ASTHMA & BRONCHITIS

### **What is Meant by Asthma and Bronchitis?**

Chronic bronchitis is a condition that causes a long term cough, in which other causes of cough (such as pneumonia, heartworm infestation, cancer, or heart failure) have been excluded.

Asthma, on the other hand, is a disorder characterized by abrupt constriction of the bronchioles and the resulting interference of air flow in and out of the lungs, which may resolve on its own or in response to therapy.

**What Causes These Conditions?** Although the potential causes of chronic bronchitis are numerous, the airways are capable of responding to noxious stimuli in only a limited number of ways. The cells lining the airways may thicken, undergo cellular anatomy changes, erode, or ulcerate. Excessive amounts of viscous mucus may be produced. Inflammatory cells may infiltrate the linings. Bronchial smooth muscle may remain unaffected, become thickened, or have spasms.

The resulting clinical signs are a result of airflow limitation from excessive mucus secretions, airway swelling, airway narrowing from cellular infiltrates, and airway smooth muscle constriction.

Eosinophils (white blood cells associated with allergies) specifically have been implicated as primary effector cells in the development of asthma. Toxic eosinophil proteins can cause sloughing of the bronchial lining, stasis of the mucus, and airway muscle contraction.

**How Common Are These Diseases?** The prevalence of these airway diseases in the general adult cat population is estimated to be approximately 1%; prevalence in the Siamese breed may be 5%.

**What Signs Are Associated With These Conditions?** Clinical signs include cough, wheeze and decreased activity. In mild cases symptoms may be limited to occasional and brief episodes of coughing. All cats with chronic bronchitis, by definition, have symptoms of cough on most days throughout the year. Some cats with asthma may be seem normal in between occasional episodes of acute

respiratory distress. Severely affected cats may have a persistent daily cough and many episodes of life-threatening distress.

Chronic cough is the defining feature of chronic bronchitis. Acute bronchoconstriction manifested as respiratory distress is a defining feature of asthma. Respiratory distress primarily during expiration is the hallmark of chronic bronchial disease. Wheezing is more commonly found in cats with asthma although it can be heard in cats with both conditions.

**How are They Diagnosed?** The history and symptoms give us a presumptive diagnosis of the disease. Blood tests and chest x-rays are often needed. Some cats may need echocardiography to determine the condition of the heart. Some other tests that may be indicated are: Transtracheal wash, bronchial wash, or bronchoalveolar lavage; Bronchoscopy; and Pulmonary function studies (available at some universities).

**How is It Treated? - INPATIENT VERSUS OUTPATIENT?** The decision to hospitalize a particular cat is determined on an individual basis. Cats with asthma more commonly require emergency hospitalization in an oxygen cage. Corticosteroids are the primary method of long-term treatment. Many cats can be effectively maintained on a small dose of prednisone given by mouth every other day. Antibiotics and bronchodilators may be needed too.

**Prognosis** Chronic bronchitis and asthma are progressive syndromes that are rarely cured. The frequency of cough in bronchitis can usually be reduced while on medicine, but not eliminated. Obese cats benefit from weight reduction. Owners of cats with asthma should report early signs of wheezing or cough immediately. Acute bronchoconstriction is a feature of asthma. This may be life-threatening and should be identified, reported, and treated promptly.

**Call Us If...** Your cat has difficulty breathing. Your cat does not seem to respond to the treatment. Your cat takes a downturn in general health. Your cat loses its appetite or loses weight.

*Thank you for this opportunity to serve you!*