

Bear Creek Mobile Veterinary Services

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# Chronic Obstructive Pulmonary Disease

(Equine Asthma or Heaves)

## **General Information**

Chronic obstructive pulmonary disease (COPD), also known as “heaves,” is a complex respiratory disease. This disease is better described by its newer name, Equine Asthma. Signs range from exercise intolerance in performance horses, to coughing, nasal discharge and weight loss. The airways of these horses are very sensitive to any irritants or infectious agents. The cause in many horses is an allergic reaction to agents commonly found in the horse’s environment, such as hay, mold or dust. In other horses, the disease begins with a viral infection. COPD of different severities can affect young athletic horses, as well as older horses. However, in almost every case, the disease progresses with each hot, humid summer.

## **Clinical Signs**

The mildest signs of an irritated respiratory tract include coughing when eating, when first going out for exercise, or just after trailering. Repetition of these signs daily for a week may be the earliest signs of COPD. At this early stage, the horse does not usually have a fever. These signs can suddenly or gradually progress to the point where the horse appears to have trouble breathing, nostrils flared, coughing increases, a wheezing sound is heard with the breathing, the abdominal muscles contract with each breath, and the horse seems to have an intolerance for exercise. Weight loss can be a problem in severe cases and the horses stop eating.

## **Causes**

Causes include inhalation of or exposure to dust of any kind, such as from hay, straw, grain, sweeping the barn, and the arena. Other factors include confinement to the barn where allergens are more concentrated and during periods of hot and humid weather, long hours of trailering, and close quarters at competitions.

## **Diagnosis**

Various methods are used to diagnose COPD and monitor the response to treatment.

\_\_\_ *Physical examination.* This may include examining the horse before and after exercise, before and after a rebreathing bag is placed over the nostrils, and again when signs are more apparent.

\_\_\_*Blood tests.* Certain blood tests can be done to rule out other respiratory problems like infections.

\_\_\_*BronchoAlveolar Lavage.* Small volumes of fluid can be injected into the horse's airway and collected for microscopic examination. This may reveal the number and types of cells and any bacteria present, and can be used to monitor the response to therapy. This procedure is usually done at a referral hospital.

\_\_\_*Skin testing.* Intradermal tests can be used to identify specific agents to which your horse is allergic. This procedure is usually done at a referral hospital.

\_\_\_*Rhinolaryngoscopic examination.* "Scoping" can be done to evaluate the upper airway. This procedure is usually done at a referral hospital.

\_\_\_*Chest radiographs (x-rays).* This is rather difficult to do with adult horses, except in referral hospitals

## **Allergies**

Once allergies become apparent in a horse, the signs seem to get worse each time the horse is exposed to the allergic agent. Molds in dusty hays are the most common cause of allergies in horses. Exposure to these molds in a dusty, confined environment is especially harmful. This situation can be common in closed barns during the winter. Seasonal allergies occur as a result of spring or summer release of pollens or are caused by specific feeds, such as certain types of hay or grain.

## **Important Points in Treatment**

Effective treatment depends on identifying the cause and severity of COPD in your horse. Begin by changing one part of the horse's environment or management for a period of at least 3 weeks. For example, feed a complete, pelleted feed like an Equine Senior diet instead of hay, or leave the horse out on pasture with no barn confinement and no hay, if possible.

Reduce the amount of exercise. Slowly bring your horse back into condition over the next few weeks. In general, horses with sensitive lungs should be conditioned over a longer period than less sensitive horses.

If your horse's condition has not improved in several weeks we should consider additional diagnostic tests and treatments. Many mild to moderate cases respond to antihistamine therapy where as severe cases usually require steroids to reduce the clinical signs. It is important to know that steroids can increase a horse's risk of laminitis (founder).