

# Heaves (COPD)

## Chronic Obstructive Pulmonary Disease

(My horse is allergic to his food!)

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Chronic Obstructive Pulmonary Disease (COPD) is one of the scientific names given to horses with Heaves. The term heaves conjures up the picture of the old broken winded horse that fights for each breath with flared nostrils and a pumping abdomen. We know that the causes of heaves are varied, but most have an origin in allergens or irritants making it a similar disease to asthma in people. Respiratory therapy and environmental manipulation can reduce the symptoms and the severity of the condition in many horses.

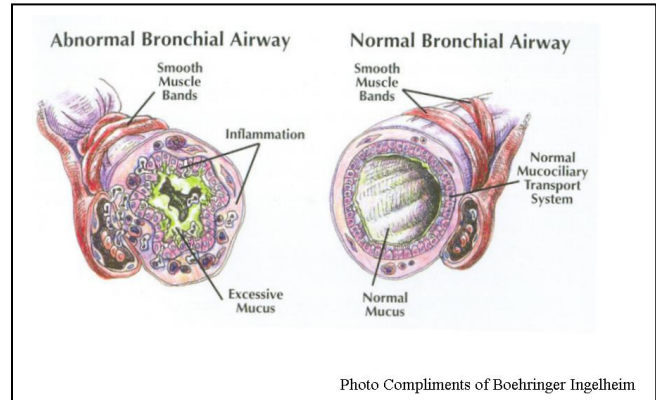
### What causes Heaves?

The respiratory system of the horse is protected by the immune system against invaders that would infect it. At times this defense mechanism can over-react to allergens and noxious irritants, and result in damage to the respiratory tract itself. This reaction causes the airways to constrict closed, the respiratory lining to thicken with inflammation, and excessive mucous to fill the airways. The lung tissue loses its elasticity, less oxygen is absorbed, and a cough develops.

In the winter many of these allergens are related to stale barn air, dust from moldy or brittle hay, and aerosolized dust particles not dampened down because the water in footing and bedding is frozen.

In the spring of the year we see horses that have allergies to leaf and grass mold that has lain under snow all winter. On warm spring days such material dries out and becomes airborne.

In the summer and fall we see horses that have allergies to a variety of pollens, not unlike people with hay fever.



### Environmental Management

The first step in treating horses with heaves is to rid the environment of the allergen. Hay for these horses must be completely dust free. Even good hay may need to be saturated with water. We recommend submerging hay in water (even in this cold weather) for several hours before feeding. Some horses may need to have their hay replaced with moist pellets or Denge. Keep the barn well ventilated, and free of dust and cobwebs.

For horses with seasonal outdoor allergies environmental control is much harder. Mowing weeds and removing moldy hay and bedding from paddocks help reduce exposure. Some horses require relocation to another area with less irritating plants. Confinement to an air-conditioned barn may even be used in extreme cases.

### Signs of Heaves

Horses with heaves may exhibit a combination of signs including:

- Cough
- Cough with gas expulsion
- Increased respiratory rate
- Increased respiratory effort (including a heave line)
- Flared nostrils
- Exercise intolerance
- Core Pulmonale (heart failure and sudden death)

Horses with heaves are never cured, only controlled.

### Medical Management

There are a variety of bronchodilators, muscle relaxants, expectorants and antihistamines that have been used both systemically and as inhaled therapies. As with people with respiratory allergies, some horses respond better to some medications than others. Consult your Veterinarian to determine which therapy is best for your horse.