

# Breathing Easy

## Help for Horses with Heaves

by Hannah Mueller, DVM

Heaves is a respiratory illness similar to human asthma, with flare-ups that make it hard for the horse to breath. The original veterinary term for the condition was COPD, or Chronic Obstructive Pulmonary Disease. It's now called RAO, or Recurrent Airway Obstruction. The name was changed because the condition is thought to be recurrent, with repeated episodes, rather than chronic or always present.

### Causes and Diagnosis

Heaves is thought to be caused by chronic exposure to dust, molds, or other air pollutants and allergens. It can be triggered by respiratory tract infections or increased exposure to the above causes.

Diagnosis is often based on the clinical signs of respiratory disease without evidence of infection, fever, or acting sick. In chronic cases, the abdominal muscles become overdeveloped from breathing efforts, causing a "heave line".

A definitive diagnosis can be made by cytology (looking at the cells present) and culture (checking for bacterial growth) of a transtracheal wash (TTW) or bronchoalveolar lavage (BAL), both of which are used to obtain fluid samples from the horse's lungs. When testing is not possible, response to treatment can also help determine a diagnosis.

### Hint

Heaves can lead to clinical signs such as exercise intolerance (easily winded), expiratory dyspnea (difficulty exhaling), chronic coughing or wheezing, nasal discharge, and weight loss.

### Treatment with Western Medicine

**Environmental management** is the first line of defense against heaves, no matter what approach you are taking. Eliminating allergens, especially dust and molds, can be done by:

- switching to pelleted hay
- soaking your horse's hay before feeding
- feeding pelleted grain
- soaking the horse's grain before feeding
- keeping the horse outside 24/7 if possible
- if he must be stalled, using pelleted shavings in a well ventilated stall
- riding in dust free environments

**Steroids** are medications that reduce airway inflammation. They are often needed to control the clinical signs of heaves and to keep the horse comfortable. They are used for maintenance therapy at as low a dose as possible, often once a day or just seasonally or during flare-ups.

Because steroids can have harmful long term side effects, the route of administration is important. Inhaled steroids treat the condition locally and are used at lower doses, which help minimize negative side effects. Flovent (the human inhaler, fluticasone) is the steroid of choice, but others such as Beconase (beclomethasone) or dexamethasone via nebulizer can also be used. Inhaled steroids require the use of a special mask, such as the Aeromask, which is often quite expensive; a second option is the Equine-Haler, which is bit less expensive. However, the Aeromask rates higher in drug disposition in the lungs, making it a better choice long term.

If inhaled steroids are not an option, oral or injectable steroids such as dexamethasone or vetalog can be used.

**Bronchodilators** dilate or open the airways. Inhaled bronchodilators are used as “rescue” therapy on an “as needed” basis.

A long acting inhaled bronchodilator such as Salmeterol can be used, but in some cases a shorter acting but less expensive option such as Albuterol is more reasonable.

The oral bronchodilator Ventipulmin (clenbuterol) is less effective, but can be used if inhaled bronchodilators are not an option.

**Hint**

Bronchodilators should be given 15 to 30 minutes prior to inhaled steroids. This helps open the airways so the steroid reaches further into the lungs.

**Diagnosing and treating allergies** can help decrease the need for steroids and bronchodilators. Allergy testing can be done with a blood test or by intradermal testing. The latter is more accurate, but also more difficult to do. The blood allergy test is controversial among veterinarians because of the high number of positives to antigens, but I have found it to be a helpful guide.

**Hint**

In some cases, secondary bacterial bronchitis can occur; a course of antibiotics may be helpful.

Once allergens are identified, they should be eliminated or minimized. In cases where exposure is unavoidable, allergy shots may be helpful. Antihistamines such as tri-hist granules or hydroxyzine may also help in these cases early on, but tend to be less useful as the condition progresses.

## Going Beyond Western Therapies

**Acupuncture** can be helpful for heaves, although some research shows that one treatment is not enough to make a difference. Treatments should be initially repeated at short intervals (such as every three days) and the interval slowly lengthened as clinical signs resolve. In Chinese medicine, heaves can be a Deficiency of the Lung and/or a Deficiency of the Kidney, or less commonly an excess of Wind and Phlegm.

Acupressure can be performed between acupuncture treatments. Interested clients can learn from their veterinary acupuncturist how to treat their own horses daily with acupressure. Depending on the case, the acupressure points involved may include Bladder-13, Lung-9, Stomach-36 and Spleen-3.

#### Hint

If you are interested in learning more about acupressure for horses, a good place to start is Nancy Zidonis' book *Equine Acupressure: A Working Manual*.

**Supportive herbs and supplements** can help significantly decrease dependence on steroids and bronchodilators. There are now many products available that can be helpful for treating heaves; it is often necessary to try a few combinations before deciding on the best fit for a particular horse.

Common herbs in respiratory formulas include cleaver, elecampane root, eyebright, garlic, ginger, licorice, marshmallow, plantain, and thyme. A combination of Hilton Herbs' Freeway and Equilite's Garlic+C is a good first line of defense. The following supplements may also offer support:

- APF (Advanced Protection Formula) for immune support
- NCD (Natural Cellular Defense) for detoxifying
- VivoZeoComplete2 for both immune support and detox
- Mushroom extracts, such as reishi and cordyceps sinensis. These, in combination with transfer factors, have shown promising results in helping to treat pulmonary function in humans with asthma, and may also be helpful for horses with heaves.
- Antioxidants for additional nutritional support
- Bioflavonoids are pigments found in fruits and vegetables known for their antioxidant activity
- Ester C (calcium ascorbate) is a potent pH neutral form of the antioxidant vitamin C
- Ground flaxseed is high in omega-3 fatty acids and helps with allergies

Homeopathics can also be used, although there is limited data showing their efficacy in treating heaves.

#### Preventing Heaves

Prevention is the foundation of a holistic approach; with heaves, prevention or early treatment is key. Simply providing a healthy living environment with good quality hay, plenty of turn-out and dust free arena footing can help minimize dust and mold exposure. Horses that are continually locked in stalls, with or without small

#### Hint

Respiratory infections can trigger heaves; overall general health helps decrease the frequency or severity of these infections.

paddocks, and ridden in dusty arenas while being fed poor quality hay are at the highest risk of developing heaves.

### **What's the Prognosis?**

With dedicated management and treatment, the prognosis for complete resolution is good. The outcome is dependent on the level of care, though, so without commitment heaves can easily become harder and harder to control, ending the horse's athletic potential and lowering his quality of life. Prevention is important, but if heaves does occur, the earlier a diagnosis and treatment plan is established, the better the prognosis is for the horse.

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Dr. Hannah Mueller is a 2004 graduate from Oregon State University College of Veterinary Medicine. She has loved, cared for, ridden and trained horses most of her life -- they are her passion. She started her own mobile veterinary practice in Monroe, Washington in December of 2004 and offers full service equine veterinary care including acupuncture, chiropractic, advanced dentistry, sports medicine and more. Find out more at [www.cedarbrookvet.com](http://www.cedarbrookvet.com).

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