



FIRESTAR

VETERINARY SERVICES LLC

Equine Asthma—Heaves

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Equine Asthma Aka Heaves, COPD, IAD, RAO

Equine Asthma is the newest title for a disease that has plagued horses for as long as there is history of horse keeping. As with asthma in people, this disease can be mild or severe. At worst it can be life threatening. Affected horses experience bronchospasm due to inflammation of their airways. Bronchospasm is a tightening of small muscles throughout the “pipes” of the lungs. This spasm makes the pipes smaller, and therefore making it become harder and harder for the horses to move air. At the same time as the

bronchospasm, inflammation is creating mucous that further blocks the passage of air and triggers coughing. To get this disease the horse needs only a genetic predisposition toward it and exposure to respiratory irritants such as dust, mold, pollen, and air pollution. Over time this is usually a slowly progressive disease, which means that most horses gradually have more severe and more frequent episodes. Exceptions to this do exist, usually these horses have a big change in environment—a move to a new climate, or at least a different air mass.

Successful treatment follows simple principles, but often entails more work for the people caring for the horse. It is important that everyone involved is in agreement as to what success will look like for each case, so be sure to talk to us if that is not clear for your horse.

Don't get overwhelmed. Unless your horse is in really serious distress you can pick and choose a few action items at a time. On the other hand, ***if your horse is having trouble breathing, contact us promptly! We can help!***

Management:

- Determine whether the horse is more triggered by dust and molds found inside the barn or pollens, molds, and air pollution found outside the barn; then try to keep the horse in their healthier place.
- Decrease dust in the barn by vacuuming walls and ceilings, moving hay storage to alternative locations, avoiding the use of leaf blowers for cleaning, dampening the aisles before sweeping or raking, avoiding straw bedding, and keeping stalls very clean. Keep affected horses outside while doing these chores, and for 1-2 hours after chores, to allow dust to settle.

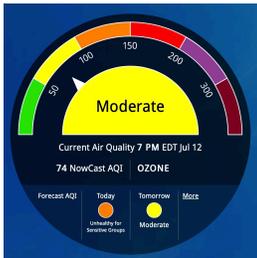
To decide if your horse is having trouble breathing watch the nostrils and the belly. But the nostrils don't work well when he is sniffing or mugging you for treats.



Dust Control
Dust Control
Dust Control

- For some horses changing bedding is key. Not all wood-product bedding is equally dusty. Or a change to hemp, flax, or paper bedding maybe needed.
- Keep barn doors and windows open as much as possible for best airflow.
- Feed only hay that is as free from dust and mold as possible. If you don't know how to evaluate hay, and need some help, please let us know.
- Wet hay completely before feeding, ideally by submerging it for 1-5 minutes. Longer will leach too many nutrients, so don't over-do it. For the worst cases, steaming the hay or eliminating it from the diet completely may be necessary. Be sure to clean up leftover wet or steamed hay, as it will mold easily, making the situation worse.
- Avoid hay from round bales (or the similar sized bales of any shape). When baled in this larger format the final curing happens differently than it does in regular 40-75 lb bales. Even when the farmer does everything perfectly, round bales have a higher level of dust and mold.
- Wet grain or concentrates if possible, many of these are dusty too.
- Feed hay and grain at ground level to reduce dust and to encourage gravity to help clean out mucous from the trachea.
- **Remember that this disease will be made worse by untreated endocrine disease so getting those diseases as well controlled as possible will help control the asthma too. These horses with both asthma and endocrine diseases are at especially**

high risk of pneumonia and should be monitored for changes in their symptoms. We should see these horses promptly if you have any doubts.



Watch the air quality, even when it isn't making the news

[https://
www.airnow.gov](https://www.airnow.gov)

[https://
www.iqair.com/us/](https://www.iqair.com/us/)

- Shipping or trailering can also be a trigger for these horses, talk to us if you need information on how to minimize the impact of shipping.
- **During hot, sticky, poor air quality Virginia summer days be sure to watch these horses for overheating. This can happen even while they are resting quietly.**
- **Your asthma horse is one of those “Affected Groups” during period of general local poor air quality. These horses MUST REST during times of code orange and above. Any period of code orange and above (red, purple, maroon) is a time for NO exercise for these horses. The ones most sensitive to air pollution might need time off during code yellow time periods. For many horses it will take a period of 1-2 weeks rest after bad air for inflammation to decrease before resuming training.**
- Indoor air quality is highly variable in barns and can swing up and down depending on what is happening in the barn. If you are curious, you can buy an air quality monitor, or ask about ours— we might be able demonstrate. **Avoid riding indoors when you have a safe outdoor option. If your outdoor ring is dusty, then water it, improve the footing or ride elsewhere.**
- If you want to evaluate the air quality right where your horse lives and breathes you can get a handheld air monitor for under \$100.

Overview of Possible Medications:

Oral Medications:

- Ventipulmin Syrup (clenbuterol): a strong and generally effective bronchodilator. Given by mouth, usually twice daily.
- Dexamethasone: corticosteroid, decreases inflammation to ease breathing. While generally safe for most horses, this is used for short tapered courses of treatment in order to avoid side effects. Side effects include increased risk of infection, and laminitis. These risks are much higher in horses with PPID (Cushing's) or Insulin Dysregulation (ID).
- Prednisolone: corticosteroid, decreases inflammation to ease breathing. "Pred" can be safer than dexamethasone for longer term use, but it is not quite as strong.
- Apoquel: allergy immune modulator. Newer to equine use, Apoquel avoid the risks of steroids for worsening endocrine related risk for laminitis. These are small pills given twice daily at first, and then decreased to once daily, eventually to every other day or less often. NOTE: This is one of my only anecdotal recommendations. Pharmacologists and most internists will say that it does not work. Having tried it on the recommendation of colleagues, it does seem to work on some horses.
- Oral antihistamines, usually cetirizine (Zyrtec) are very helpful in decreasing the body's over-reaction to common allergens. These are small tablets mixed in the feed. They must be given every day during the horse's asthma season, or all year round for some patients.





Aservo EquiHaler

Photo credit: BI

Inhaled medications:

With inhaled medications the medications are highly concentrated only in the lungs, so that there are no side effects in the rest of the body. There are two main categories of these:

1. Using an Aerohippus or EquiHaler device to deliver human generic bronchodilators is easier than ever before. With this delivery the medications are safer and much more effective than oral medications.

- Albuterol is by far the most commonly inhaled medication—this is a bronchodilator. It makes the constricted air passages relax so air can move more freely.
- Inhaled steroids, like fluticasone, are both safer and more effective than systemic steroids.
- The newest medication is an equine specific inhaled steroid with a built in inhaler device this is Aservo, and it is highly effective in most cases.
- Generally we have some combination of these or similar medications on the truck and can provide them for you.

2. Using a Flexineb is another method of delivering inhaled medications. This can be a very effective way to deliver a combination of medications to relax the constricted bronchi, decrease the reaction that causes the constrictions and to break up and reduce mucous. This has the highest initial investment and takes time for daily during the times that your horse has symptoms. You can find more information on flexineb here:

<https://www.flexineb.us>

The combination medication best for this is custom compounded at Rood & Riddle's pharmacy. I can prescribe there for you, and then they contact you to fill the order.



Flexineb

Photo credit:
flexineb.us

Allergy shots:



While not all experts agree on their utility, many of us treating horses in a primary care setting find them to be an amazingly useful tool in this disease. We take blood and send it off for an allergy serum lab to make a list of your horse's triggers. This list is NOT a solid determination, but more like a suspect list. Then they make custom allergy serum concentrating on that list of allergens. The serum is then given as shots. Most owners can easily learn to give these shots. If your horse is very needle shy we can get the serum as drops, but these are much more labor intensive. Or if you are needle shy we can make arrangements to give the shots for you, or offer extra teaching sessions to get you comfortable.

<https://nextmune.com/us/home-pet-parent/>

Note that the website is oriented to dogs and cats, but the science is still excellent for horses.

Additional support:



Omega-3 fatty acids (DHA) from fish oil have been shown to help reduce the dependency on medications for treating airway inflammation. A product for horses (Aleira, from Arenus Animal Health) has been studied for managing chronic airway inflammation in horses. Feed it according to label instructions.

<https://arenus.com/aleira/>

Spirulina also has some evidence of helping these horses. However, dosing and types of preparation are not settled to my satisfaction. Always take a buyer-beware approach for these products.

IF YOU OR YOUR HORSE IS STRUGGLING, PLEASE LET US KNOW!! WE HAVE SO MANY TOOLS TO HELP!! BREATHING IS FUNDAMENTAL!!