

EQUINE ASTHMA

What is Equine Asthma?

- The term Equine Asthma is an umbrella term which encompasses inflammatory airway disease (mild equine asthma) and recurrent airway obstruction (also known as heaves, chronic obstructive pulmonary disease but broadly classified as severe equine asthma).

What horses does it effect?

- Largely those kept in stables/stalls, although not exclusively.
- Incidence of mild-moderate equine asthma may be as high as 80-95% in Thoroughbreds and Standardbreds in USA and Europe.
- Severe Equine Asthma is the most common chronic respiratory disease in adult and senior horses.

Signs and Symptoms of Equine Asthma

- Although Mild Equine Asthma and Severe Equine Asthma are part of the same disease process, they generally present differently.
- Mild Equine Asthma typically affects younger to middle aged horses; results in decreased performance and the horse sometimes has a cough
- Severe Equine Asthma typically occurs in older horses; generally have frequent coughing; difficulty breathing at rest; exercise intolerance; often have a heave line.

What is actually happening in the respiratory system of horses with Equine Asthma?

- Airway walls become inflamed (which causes narrowing of the lumen).
- The lower airways and bronchioles constrict- like a spasm.
- Excess mucous and other secretions are produced in the airways, which causes obstruction in the airways.
- Over time, there is remodelling of the cells lining the lungs. Smooth muscle cells of the always grow excessively and fibrosis/scarring in the lungs can occur.

What causes Equine Asthma?

- In a nutshell, airway irritation.
- Largely dust and inhaled particulate matter (aero-allergens, mould spores, mites, pollens, endotoxins)
- Some horses may have an allergic component to their asthma (immune dysfunction).
- Mild Equine Asthma may involve an infectious component in some horses (bacterial or viral).
- Dust drives inflation of airways. Inflammation of airways compromises performance.

What can we do to help these horses?

- Reduce exposure to dusts, moulds and environmental allergens.
- Modify our feeding and management practices.
- Special considerations for stabled horses.
- Remember that particles that irritate airways aren't always visible to the naked eye.

What medications are commonly used in Equine Asthma and what do we need to be aware about with their use?

- The two most common medications are corticosteroids (inhaled/oral/injectable) to reduce inflammation and bronchodilators (paste or puffers) which help to open up the airways.
- Inhaled corticosteroids cause changes in the microflora of the respiratory tract, can actually provoke coughing in some cases and are absorbed into the bloodstream even though they are inhaled.
- Injectable or oral corticosteroids (such as prednisolone or dexamethasone) deplete important nutrients such as magnesium, calcium, vitamin D, zinc, selenium, etc.
- Bronchodilators may cause central nervous system and heart stimulation- and can make horses edgy or nervous. They can deplete important minerals such as magnesium, and can cause muscle cramps and tachycardia.

Natural Alternatives for horses with Equine Asthma

- There are many terrific nutrients and herbal medicines, which when used correctly and in therapeutic doses can be very effective, particularly alongside environmental changes.
- From a nutritional perspective, omega-3 fatty acids are incredibly useful.
- When there's an allergic component involved in the asthma, then remedying gastrointestinal microflora is important.
- When using nutrients and herbal medicines, I always look to use those which can confer benefits across multiple health and performance aspects, in addition to helping with asthma.