



Horse Health:

Equine Asthma

What is it?

Equine asthma is one of the most common causes of coughing and poor performance in horses. It is a long-term (chronic) respiratory condition that affects the lower airways of horses. It causes inflammation and narrowing of the small airways in the lungs, making it harder for the horse to breathe.

It is part of a spectrum of conditions that used to be known by several names, such as **Recurrent Airway Obstruction (RAO)**, **Chronic Obstructive Pulmonary Disease (COPD)**, and **Inflammatory Airway Disease (IAD)**.

These terms are now grouped together under “**Equine Asthma**” which can range from mild to severe:

- **Mild to moderate equine asthma:** Previously known as IAD, this is often seen in younger horses, particularly those in training.
- **Severe equine asthma:** Formerly labelled RAO or COPD, this is more common in older horses, especially those that have been stabled for long periods.

What causes it?

The condition is caused by an allergic-type reaction to inhaled particles such as dust, mould spores, and pollen, which irritate the airways and trigger an inflammatory reaction.

The main cause of equine asthma is inhalation of irritants and allergens in the environment. Horses spend a large proportion of their time breathing in small airborne particles, and in some animals, the immune system reacts abnormally to these substances.

Common triggers include:

- Dust from hay and bedding (especially dry hay or straw).
- Mould spores found in hay, bedding, or feed.
- Ammonia fumes from urine in poorly ventilated stables.
- Pollen and environmental dust from arenas or paddocks.
- Cold or humid air, which can worsen symptoms in some horses.

Repeated exposure to these irritants causes chronic inflammation, mucus build-up, and narrowing of the airways, leading to coughing and difficulty breathing.

What horses are at risk?

Any horse can develop asthma, but certain groups are more prone:

- Middle-aged and older horses, particularly those kept indoors for long periods.
- Horses fed on dry hay or bedded on straw. Both release high levels of respirable dust.
- Competition or racehorses. Those exposed to dusty arenas and/or intensive training schedules can be more likely to develop mild asthma.
- Horses with poor stable ventilation.
- Horses with a genetic predisposition. Some bloodlines appear more susceptible.

What are the symptoms?

Signs can vary depending on the severity of the condition. They often develop gradually and may worsen at certain times of year or when environmental conditions change.

Common symptoms include:

- **Coughing:** This can occur both during exercise and (in more severe cases) at rest.
- **Nasal discharge:** This is usually clear or slightly cloudy mucus.
- **Increased breathing effort:** Especially apparent after exercise or when stabled.
- **Heaving at the flanks:** This “heave line” develops in chronic cases due to overuse of breathing muscles.
- **Reduced performance:** Horses may tire quickly, resist work, or show a decline in stamina.
- **Nostril flaring or noisy breathing:** Again, this can be both during exercise or at rest in more severe cases.

In severe cases, horses may show laboured breathing at rest, and some may stand with their head and neck extended to ease airflow. Symptoms usually improve when the horse is turned out to pasture and worsen when stabled, but not always.

How is it diagnosed?

Your vet will start by taking a detailed history and performing a full clinical examination. They will listen to your horse's lungs and airways with a stethoscope and may carry out further tests to confirm the diagnosis and rule out other causes of coughing or poor performance.

Diagnostic tests may include:

- **Endoscopy:** This involves using a flexible camera, which is passed into the trachea and bronchi to examine the airways and collect fluid samples if necessary.
- **Tracheal wash or bronchoalveolar lavage (BAL):** Fluid is flushed into the airways and then retrieved to look for inflammatory cells under the microscope - this confirms airway inflammation.
- **Blood tests:** May help identify systemic inflammation or infection.
- **Response to environmental management:** Improvement after reducing dust exposure can also support the diagnosis.

How can it be treated or managed?

The key to managing equine asthma is reducing exposure to airborne irritants and controlling airway inflammation. The condition can't be "cured," but with good management and veterinary care, most horses can live and work comfortably.

1. Environmental management

This is the most important part of treatment:

- **Maximise turnout:** Fresh air and low dust exposure help the lungs recover.
- **Feed dust-free forage:** Use haylage or thoroughly soak hay for at least 30 minutes before feeding.
- **Avoid straw bedding:** Use low-dust alternatives such as paper, cardboard, or dust-extracted shavings.
- **Improve ventilation:** Open stable doors and windows to allow air circulation.
- Avoid **sweeping or mucking out** while horses are in the stable.
- Store hay and bedding **away** from stabled horses.

2. Medication

Your vet may prescribe medicines to control inflammation and ease breathing:

- **Corticosteroids:** Drugs such as dexamethasone or prednisolone can be used to reduce airway inflammation. The risk of laminitis is low, but can be reduced further by using inhaled therapy.
- **Bronchodilators:** Drugs such as clenbuterol (in food) or salbutamol (in an inhaler) are used to relax the airway muscles and improve airflow.
- **Mucolytics:** These can sometimes be used to help clear mucus from the lungs.

Medication can be given orally, by injection, or via inhalers using specially designed equine masks. Inhaled therapy is usually very effective with fewer side effects, especially for long-term management.

3. Exercise management

Once your horse's breathing has improved, regular gentle exercise helps clear mucus and strengthen the respiratory system. Work levels should be increased gradually and always under veterinary guidance.

Can it be prevented?

Not all cases can be completely prevented, but careful stable management and attention to the horse's environment make a huge difference:

- Feed dust-free forage and avoid dry hay if possible.
- Use low-dust bedding and keep the stable clean and well ventilated.
- Turn out as much as possible.

- Avoid storing hay above the stable or feeding hay nets at head height — feeding from the ground encourages natural drainage of mucus.
- Maintain good overall health and fitness, as respiratory health is linked to the horse's immune system and condition.

Monitoring your horse for early signs, such as an occasional cough or mild nasal discharge, allows prompt action before the condition becomes severe. While it's a lifelong condition, even small environmental changes, combined with appropriate veterinary treatment, can make a huge difference - allowing most horses to live happy, comfortable, and active lives. If you notice your horse coughing, breathing heavily, or showing any signs of respiratory distress, contact your vet for advice. Early intervention gives the best long-term outcome.