



RESPIRATORY DISEASE IN THE DONKEY

Donkeys are susceptible to the same respiratory diseases as horses, however, as donkeys are very stoic and tend not to be athletic, signs may get missed and diseases may progress significantly before illness is noticed. The respiratory system starts at the nose which leads to the windpipe (trachea), which branches into bronchi leading to each lung. Tiny hairs in the nasal passages trap dust and other particles that would otherwise irritate the sensitive lining of the lungs. Mucous production throughout the system also serves to trap foreign particles. Coughing is a reflex designed to 'cough up' mucous covered foreign particles.

CAUSES OF DISEASE

There are many causes of respiratory disease and some of the common causes are included here:

Infections

Several viruses may affect the donkey such as Equine Influenza, Equine Herpes Virus (and a donkey-specific herpes virus called Asinine Herpes Virus).

Bacterial infections include Strangles (*Streptococcus equi*)

Parasites include an equine specific lungworm.

Allergies

This is the equivalent of asthma and could be caused through dust, pollen or fungal spores. A notable condition in the donkey is Recurrent Airway Obstruction - in some cases pasture associated. RAO used to be called chronic obstructive pulmonary disease and has also been known as 'heaves' in the past.

Fibrosis

This is a reduction in the elasticity of the lungs so essential for effective inspiration and expiration. This may occur with age or as a sequel to another pathological insult such as viral diseases.

Tumours

Not very common but they do occur.

Tracheal narrowing/collapse

The windpipe cannot function effectively if it loses its shape.

SIGNS OF RESPIRATORY DISEASE IN THE DONKEY

It is essential that you know what is the normal respiratory rate for your donkey. Get used to checking the rate of respiration (how often your donkey breathes in and out). This is variable but on average a donkey breathes in and out between 13 and 31 times per minute, with an average of 20 times a minute. More details can be found in the Donkey Care Handbook in the section on Donkey Health.

- If nostrils flare excessively with each inspiration there may be a problem.
- Breathing should be as easy for a donkey as it is for us. Excessive abdominal movements are abnormal.
- An outstretched neck or very noisy respiration is abnormal.
- Persistent coughing is abnormal.
- Any nasal discharge, whether thick or thin, is abnormal. Check if it is one sided or coming from both nostrils.
- Feel around your donkey's head, especially between the bones of the lower jaw and throat area. There should be no abnormal swellings which could indicate swollen lymph glands as a result of infection.
- If your donkey is off his/her feed and/or has a high temperature it could indicate respiratory infection.

WHAT TO DO?

Call your vet without delay! Any information regarding breathing characteristics, body temperature and/or discharges will be very useful to let your vet know about. Your vet will certainly want to confirm that vaccination against Equine Influenza is up to date. De-worming information will also be vital. Information regarding any change of bedding material may be relevant. It is essential that you let your vet know if your donkey has travelled recently and whether there has been contact with other equines.

Your vet will carry out an examination which may include checking the body temperature, pulse rate and respiration rate. A sample of nasal discharge may be taken away for analysis, this is usually taken using a long swab inserted briefly up one nostril.

A stethoscope will be used to listen to the breathing sounds in the lungs. Blood and dung samples may well be taken. Xrays can be useful for examining the chest of a donkey and an ultrasound scan can help detect damage. An endoscope (a tube containing a light source which can be inserted into the windpipe via a nostril) can be used to look for signs of disease in the windpipe.

TREATMENT

This will depend upon the vet's findings but could include, anti-inflammatory medication, antibiotics and drugs to expand the airways and reduce excessive mucous production. More complex procedures such as Xrays, ultrasound and endoscopy may be recommended (does your insurance cover vets fees?) In some cases changes in management are essential, for example, if a dust allergy is suspected then dust free management must be put in place. This will involve a change to dust free bedding, soaking of feeding straw/hay and turn out as much as possible. Many respiratory diseases are highly infectious and you will need to prevent transmission of the infection by careful hygiene and isolation precautions. Seek your vet's advice about what to do if an infectious cause is diagnosed, but always remember never to separate your donkey from his/her companion.

A donkey that has a fever and respiratory disease, may go off their food and develop hyperlipaemia. Sick donkeys will need good nursing care and tempting feed (see fact sheet for Hyperlipaemia).

REDUCING THE RISK

Ensure your donkey is vaccinated against Equine Influenza – this requires an annual booster. Even if your donkey never leaves the paddock it is still at risk. Other equines may be in the vicinity and could spread infection. You could even bring infection in yourself.

Ask your vet about testing for worms by carrying out a faecal worm egg count (FWEC). Ask your vet to check for lungworm in the faeces using a specific test as a FWEC will not detect these parasites.

Make sure your bedding and feeding straw/hay is good quality and as dust free as possible. If you see mould on the hay or straw discard it. Clean and disinfect your donkeys stable on a regular basis, removing mouldy, dirty damp bedding, dust and any cobwebs. Ensure stables are well ventilated but not drafty.

Your donkey will thrive on an enrichment program. Highly intelligent and inquisitive they will greatly enjoy being taken out for walks and the exercise provides real health benefits. It will also be much easier for you to spot abnormalities if you are walking your donkey out as their respiratory apparatus is put to the test!

If you need further advice or information on feeding your donkey with respiratory disease please do not hesitate to contact us on **01395 578222** or by email **nutrition@thedonkeysanctuary.org.uk**. For all other respiratory disease related enquiries please contact your vet.