

## RESPIRATORY DISEASE IN THE DONKEY

Donkeys can suffer from the same range of respiratory diseases that affect horses and ponies; however frequency and symptoms may vary. A donkey that is sick for any reason may stop eating and develop hyperlipaemia as a secondary complication. Some respiratory diseases are infectious and will spread to other equines. Call your vet if there is any change in your donkey's breathing.

### Main signs of respiratory disease in the donkey;

- Coughing at rest or exercise. The donkey appears to have a relatively insensitive cough reflex and as donkeys are rarely exercised respiratory disease may be quite advanced before it is detected.
- Increased respiratory rate. It is important to be familiar with your donkey's normal respiratory rate. Measured as breaths per minute; it should be around 12 – 16.
- Abnormal respiratory noises; these may include wheezing, honking, snorting etc.
- Increased effort in breathing; seen as flared nostrils and heaving abdomen.
- Nasal discharge; this may range from thin and clear, to thick and yellow and/or foul smelling.
- Swellings of the glands in the throat region and under the jaw.
- General "unwellness", high temperature and loss of appetite.

Your donkey may not have all these symptoms at once but if he/she is showing any of them the following action is recommended;

- Take the temperature, pulse and respiratory rate of your donkey.
- Telephone your usual vet and give a detailed history and information about the problem.
- Check the environment is dust free. Soak hay, change to dust free bedding; turn out to grass if possible.
- Offer fresh feed and water.
- Consider isolating your donkey from other equines until you know if it has an infectious disease.

Your vet may ask for the following information to help with the diagnosis;

- Details of existing vaccination programme including dates of last vaccinations.
- Details of existing worming programme including dates of last worming and product used.
- Any recent stress including transportation or mixing with other equines.
- Any changes in the condition with different seasons or situations.
- Current feeding and housing systems.

Your vet might refer to the **respiratory tract**. This term includes all the structures involved in breathing and includes the nose, pharynx (throat), larynx (voice box) trachea (wind pipe) and lungs.

If called out, the vet will perform a clinical examination of your donkey, this may include;

- Check of temperature, pulse and respiration rate and character.
- Examination of nasal discharge and possibly taking samples from deep within the nose.
- Listening to the trachea and lungs with a stethoscope, a plastic bag called a re-breathing bag may be placed over the nostrils to increase the depth of respiration.
- Blood and faecal samples.
- A fibre optic endoscope may be inserted up one nostril and down the trachea to examine the airways visually and take samples.
- In foals a chest X-ray can be useful, but in adult donkeys this is rarely practical.

Your vet will prescribe treatment or recommend further investigations as appropriate, be sure that you fully understand all instructions and be careful to follow all treatment guidelines accurately.

### Main causes of respiratory disease in the donkey

#### Viral and bacterial infections

The most serious viral disease includes equine influenza and equine herpes virus infections. The most serious bacterial disease is Strangles caused by *Streptococcus* bacteria. In addition bacterial infections often follow viral infections and complicate the course of the disease.

Virus and bacterial infections tend to cause the donkey to look ill as well as having respiratory signs. They may be off feed, have a high temperature, a runny nose and a harsh cough. In addition donkeys may develop hyperlipaemia when affected by these diseases and often require intensive treatment and nursing. As these can be highly contagious so good hygiene must be practiced by all involved in the donkey's care and the donkey isolated from other equines if possible. Isolation may be hard if the donkey has a bonded companion and you will need specific veterinary advice about this depending on your situation.

### **Parasitic infections**

Donkeys are affected by the lungworm parasite *Dictyocaulus arnfieldii*. While this rarely causes a problem in the donkey it will cause severe coughing in horses and ponies that contract the parasite. Heavy lungworm burdens in the donkey may make other respiratory disease worse. In young donkeys infection with *Parascaris* worms migrating through the lungs will also cause irritation and coughing.

### **Allergies**

Allergies to dust/pollen/fungal spores found in hay and/or pasture cause a narrowing of the small airways making the donkey wheezy with increased respiratory effort. The condition is called Recurrent Airway Obstruction (RAO), previously known as chronic obstructive pulmonary disease (COPD) or summer pasture associated obstructive pulmonary disease (SPA-OPD). RAO usually presents as a wheezy donkey with increased respiratory effort. As donkeys are not exercised much the condition may often be very severe before it is diagnosed.

### **Anatomical**

Donkeys can suffer from narrowing of the trachea leading to difficulty in breathing often accompanied by a peculiar honking sound. This is more common in older animals suffering from chronic lung disease. Problems with the structure and function of the larynx, pharynx or palate may also lead to abnormal respiratory sounds.

### **Preventing respiratory disease in the donkey**

- Maintain an up to date vaccination programme against infectious disease.
- Worm your donkey regularly following a strategic worming plan.
- Keep the stable environment as dust free as possible, use good quality hay, soaked if necessary. Use dust free bedding and do not muck out with your donkey inside.
- Ensure stable ventilation is good, do not shut top doors or close windows.
- Know when to call the vet and watch for signs of ill health.