



HYPERLIPAEMIA - HYPER (TOO MUCH) LIP(ID) (FAT) AEMIA (IN THE BLOOD)

ALL DONKEY OWNERS SHOULD BE AWARE OF THIS CONDITION AS IT CARRIES A HIGH RISK OF DEATH EVEN WHEN RECOGNISED AND TREATED PROMPTLY.

Donkeys (as well as some native pony breeds) are particularly susceptible to this devastating condition, which has been recognised since the late 1960's. These types of equines are designed to live in harsh environments where vegetation may be sparse and of poor quality, necessitating walking for up to 16 hours a day in search of food. As a result they tend to put on weight and gain excess fat reserves when living on the relatively lush pasture and with limited exercise. Unfortunately when these animals stop eating for any reason hyperlipaemia may develop.

THE DISEASE PROCESS

When the donkey stops eating enough it goes into a state of 'negative energy balance' (more energy being used up than is being taken in) , The essential organs still require a food supply, so the body tries to use energy that is stored as fat deposits. The result is that free fatty acids are circulated to the liver to be converted to glucose for use by the body. This system is controlled by complex hormonal events, which should shut down the amount of fat released from fat stores as the liver produces the glucose for the body.

However, donkeys and small ponies are not able to efficiently turn off this fat release and the blood soon fills up with excess fat in circulation. This circulating fat can be measured in the blood as triglycerides by a veterinary surgeon. Large amounts of fat cause the liver and kidneys to degenerate and fail, and eventually all the organs in the body fail. The result is irreversible organ damage and death.

CAUSES OF HYPERLIPAEMIA

A number of risk factors have been identified as contributing to this condition. It is known that a female donkey is at higher risk than a male, especially when there are high energy demands such as if she is pregnant or lactating. Overweight and obese animals are at higher risk than those in average condition but even thin donkeys are at risk. Donkeys that have lost significant weight in the preceding weeks should be monitored carefully as they are at a much higher risk of developing this disease, when dieting donkeys care should be taken not to crash diet as this will put the animal at risk.

“Stress” will cause an animal to reduce its feed intake and can be brought on by many stressors:

- Pain
- Loss of a companion
- Sudden dietary change
- Transport
- Social mixing
- Bad weather
- Sudden weight loss

Any underlying disease can set off the process such as, dental problems, colic, a heavy worm burden, choke etc.

SIGNS OF HYPERLIPAEMIA

Subtle changes in behaviour are very important early indicators of possible disease problems. So the key to spotting this condition is to know how your donkey normally looks and behaves so you can spot any subtle changes. Owners should investigate further any suspicion that their donkey may be unwell as delays in treatment can reduce the chances of successful outcome.

As with so many diseases this stoic animal may simply appear DULL with a reduced appetite. Halitosis (bad breath) may be evident and there may be reduced production of dung or mucous covered dung. Later there may be ventral oedema (excessive build-up of fluid in the body's tissues), and signs of liver and kidney failure such as head pressing, circling and ataxia (lack of voluntary coordination of muscle movements). Lastly animals collapse and may suffer seizures before death.

Because the signs are so vague initially, donkey owners must act upon even minor signs, as delays in treatment can reduce the chances of successful outcome.

PREVENTION IS MUCH BETTER THAN CURE!

- Where possible avoid or minimise stressful events – make changes slowly, plan ahead, prepare or train your donkey for new situations. Follow the advice in the 'Travelling Donkeys' fact sheet.
- Do not let your donkey get over-fat, monitor feed intake carefully, especially with pregnant and lactating Jennies. If they are overweight follow advice contained in Management for Weight Loss factsheet.
- Underweight donkeys are also at increased risk of hyperlipaemia so try to maintain your donkey in a healthy condition and use fibre based supplementary rations where possible. Refer to factsheet??
- Provide shelter in bad weather.
- Put rugs on old, thin animals. Follow advice in the 'Caring for the Older Donkey' factsheet
- Watch when new members are introduced to the group, make introductions gradually, over several days and even weeks to avoid bullying and minimise stress. This is particularly important if animals other than donkeys are introduced as donkeys are frequently the 'bottom of the pecking order' when living with horses, ponies or mules.

COMPANIONS, BONDING AND DEATH

The death of a companion is very stressful and requires careful management. Always allow the bereaved donkey to remain with the body of its companion until interest appears to have been lost. Observe the surviving donkey very closely for at least three weeks after the loss of a friend as it is our experience that hyperlipaemia may not occur for some time after the stressful event. Lots of extra attention will help but do not feed extra treats as this will lead to weight problems and it's a habit that a donkey will relish!

A DULL DONKEY IS A VETERINARY EMERGENCY!

If you are concerned ask your vet to visit. In the meantime encourage your donkey to eat. Try fresh grass, or taking the donkey to a hedgerow where they can be allowed access to non-poisonous plants, grated apple/carrot and ginger biscuits or any other foodstuff you know your donkey enjoys– this is one time when sweet treats maybe called for! Offer some warm clean water to drink. Your vet may take a blood sample and examine it by eye once the red blood cells have settled out as fat can be seen in the serum.

The key to dealing with hyperlipaemia is to reverse the 'negative energy balance' before the fat released into the bloodstream has time to cause organ failure. If the donkey will eat then encourage him/her to do so. If the donkey is inappetant your vet may introduce liquid food via a tube passed up the donkey's nose and into the stomach. In severe cases the donkey may require an intravenous fluid

drip. If the donkey has to be hospitalised his/her companion **MUST GO TOO!** (are you insured?). Depending on the cause of the hyperlipaemia your vet may also give anti-inflammatory/antibiotic medication.

WHERE CAN I FIND OUT MORE?

The Donkey Sanctuary vets have extensive experience of recognizing and treatment this catastrophic disease and are always available to discuss cases with veterinary surgeons. Contact details are: 01395-578222 or vets@thedonkeysanctuary.org.uk. We also offer a free laboratory service for donkey blood samples submitted by your vet.

THE DONKEY SANCTUARY

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The Donkey Sanctuary was founded by Dr Elisabeth Svendsen MBE in 1969.

The Donkey Sanctuary (registered charity number 264818) and its sole corporate trustee, The Donkey Sanctuary Trustee Limited (Company number 07328588) both have their registered office at Slade House Farm, Sidmouth, EX10 0NU.

Incorporating: The Elisabeth Svendsen Trust for Children and Donkeys (EST); The International Donkey Protection Trust (IDPT).

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