

SYCAMORE RELATED ATYPICAL MYOPATHY - INFORMATION FOR DONKEY OWNERS



**THE DONKEY
SANCTUARY**

Atypical myopathy (AM) is a potentially fatal metabolic disease affecting the muscles. Cases have only been reported in horses so far but donkeys could also be affected. The disease has been reported in the UK, Northern Europe and North America. In Europe it is thought to be caused by a toxin in the 'helicopter' like seeds from the sycamore (*Acer pseudoplatanus*) whereas in the USA, seeds from the box elder (*Acer negundo*) have been implicated.



Sycamore 'helicopter' seeds



Sycamore leaf

DISEASE DEVELOPMENT

Autumn 2014 saw a sharp increase in cases in the UK, due to extreme seasonal changes in weather. The disease is relatively new and aspects of it are still not fully understood. A link was made between ingestion of seeds containing the toxin hypoglycin A and development of AM in 2013. The condition has a high mortality rate (approx 70%), and time between onset of clinical signs and death can be as little as 12 hours or as long as 10 days.

Symptoms in horses include:

- Depression
- Muscle weakness
- Inability to stand
- Sweating
- Loss of appetite
- Increased heart and respiration rate
- Choke
- Dark red urine and mucous membranes (eg gums)

SEASONALITY

High winds can carry the seeds far from the tree, as can streams and run off water. Very wet conditions may also release the toxin from the seeds into the surrounding land. Donkey owners need to be particularly vigilant in the autumn as seeds can even be found in pastures not necessarily containing sycamore trees. Extreme weather at other times of year may also be of significance.

TIPS FOR DONKEY OWNERS

- Ensure adequate food sources are available (further advice available from the Research Dept)
- Fence off around sycamore trees but be aware that seeds may travel further than expected
- Inspect fields daily and remove any seeds/leaves
- Remove young tree saplings
- Check your animals twice daily and contact a vet immediately if any abnormal signs are seen
- Ensure all people caring for your animals are aware of the dangers and symptoms
- Check insurance policy is up to date

PASTURE MANAGEMENT

Poor pasture management, high stocking densities and poor provision of safe food sources are often major risk factors in the development of poisoning in horses, donkeys and mules. Hungry animals will explore alternative food sources and eat plants that they would normally reject. Once eaten, animals often get a taste for many plants and seeds which we know are toxic such as bitter acorns. With winter right around the corner now is the time to ensure a steady supply of straw and hay or haylage is available to avoid your donkeys looking elsewhere to satisfy their appetites.

We would not recommend removing your donkeys from pasture altogether, but be especially careful choosing grazing for 'at risk' animals such as the very young or old, and those who are ill or convalescing as they will be more susceptible to and less able to cope with AM.

Sycamore has traditionally been used as a source of shelter/browse for horses and donkeys, and there are undoubtedly many situations where equids and sycamores get along just fine. Cut sycamore logs (minus any leaves/seeds) are still safe to be given as environmental enrichment.



The major risk factor is thought to be an abundance of seeds/leaves on the ground together with a lack of suitable forage.

OTHER INFORMATION

The Donkey Sanctuary has more information available on other poisonous plants and trees (see Poisonous Plants factsheet) and also on providing safe browsing for donkeys (see Safe Trees and Shrubs for Donkeys factsheet).

Since the emergence of AM is still relatively new the body of available published research on the disease is in its infancy. However a research group based in Belgium has produced several papers and analysed over 300 cases of AM. For those of you who are interested there is a link to one of the most recent papers published last year on the Donkey Sanctuary research webpage.

Professor Celia Marr, Editor of Equine Veterinary Journal said: "This is an important advancement in our understanding of what causes AM and how it can be prevented. In immediate practical terms owners can take prompt measures to avoid exposing their horses to sycamore seeds this autumn."

"Where horses are grazing in the vicinity of sycamore trees, it is imperative that they are provided with sufficient supplementary feed as this will minimize the risk that horses might be tempted to ingest seeds containing this toxin."

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If you need further advice or information please do not hesitate to contact us on 01395 578222 or by email nutrition@thedonkeysanctuary.org.uk

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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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