

# Atypical Myopathy

## What is Atypical Myopathy?

Atypical myopathy is a potentially fatal disease of horses in the UK and Northern Europe which affects grazing horses. It is linked to the toxins that are present in sycamore seeds and has a seasonal prevalence, with most cases occurring in autumn/early winter and sometimes the following spring.

Sycamore seeds and seedlings contain the toxin Hypoglycin A. When ingested, the toxin causes muscle damage and particularly affects the postural muscles (those that enable the horse to stand), the diaphragm (the muscles that facilitate breathing) and the heart.

## Signs of Atypical Myopathy

Atypical myopathy is a disease that affects the skeletal, respiratory and cardiac muscles of the horse, resulting in a range of clinical signs with variable severity:

- Weakness
- Trembling
- Recumbency (lying down)
- Muscle soreness
- Stiffness
- Lethargy
- Fast or laboured breathing
- Reluctance to work
- Red or brown urine
- Choke
- Whinnying
- Head tossing or low head carriage
- Fast or irregular heart beat
- Sudden death



## Confirming the disease

Vets may suspect a diagnosis of atypical myopathy on the basis of their clinical examination and the horse's recent grazing history.

One of the most reliable signs is the passing of red or brown urine. There are very few diseases that will cause this to occur and if a horse has signs of atypical myopathy and has been grazing near Sycamore trees, then the presence of red/brown urine is as good as proof that the horse has the disease. The dark colour is caused by the presence of muscle pigment (myoglobin) which is released from damaged muscle cells into the blood and is then removed by the kidneys. The presence of muscle damage can be confirmed by measuring levels of enzymes in the blood that are released from damaged muscle cells.



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## Treatment for Atypical Myopathy

It is a common misconception that the disease always results in death. However, the chances of survival are 50:50 at best so it is vitally important that treatment is thorough and starts immediately. Horses often get worse for 24-48 hours before they start to improve so even if the signs are mild, transport to a hospital should be considered, whilst it is still possible.

Treatment involves:

- Intravenous fluids are used to help protect the kidneys from being damaged. Fluids are also important because horses with Atypical myopathy tend to become very dehydrated
- Infusions of powerful painkillers and anaesthetic drugs
- 24/7 intensive nursing care
- Supplementary vitamins and minerals

Initially recovery is slow, but most affected horses that recover go on to make a complete recovery and return to work with no long-term effects of the disease.

## How to prevent Atypical Myopathy

Horses that develop the disease are usually kept in sparse pastures with an accumulation of dead leaves and are often not fed any supplementary hay or feed. While the seeds may not be directly palatable, horses grazing on poor quality pasture may ingest considerable numbers of them.

Horse owners are advised to:

- Check fields carefully for sycamore leaves and seeds
- Fence off areas where sycamore seeds and leaves have fallen
- Hoover-up/pick up sycamore seeds from the pasture
- Turn horses out for shorter periods
- Provide extra forage (hay or haylage), especially where pasture is poor or grazing is sparse
- Reduce stocking density so there is plenty of good grazing for every horse



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