

CLIENT INFORMATION:



Feeding and management advice for Equine Rhabdomyolysis Syndrome

('tying up' / 'azoturia' / 'Monday morning disease')

Introduction

This syndrome affects primarily the muscles of horses of any age, breed or gender and results in the partial or complete inability to move (e.g. show pony reluctant to extend or racehorse unable to finish a race and collapsing). It is a serious syndrome that in the worst cases can lead to death.

Sufferers have an underlying susceptibility to the condition, which may then be triggered by one or more factors, usually including exercise, resulting in the clinical signs. The underlying predisposition, as well as the trigger factors differ between horses and so measures that may be successful in one individual may not be successful in another.

The condition is usually easy to diagnose using a simple blood test that we can process in our laboratory at the practice. Sometimes a muscle biopsy is needed to help with the diagnosis.

There is no single treatment or procedure that can guarantee against further attacks in an individual but the following guidelines may help to reduce the likelihood or frequency of future episodes.

These notes are taken from the latest advice given by Dr.P.Harris MRCVS having completed a PhD study into this syndrome at The Animal Health Trust, Newmarket.

DIET

1. Forage

- The major proportion, if not all of the diet should be forage – either fresh (pasture) or preserved (hay or equivalents)
- For most horses, it is preferable not to feed large quantities of alfalfa or other legume-rich hays
- An appropriate general vitamin/mineral supplement will normally be required (plus additional salt if working hard or in very hot weather if on mostly forage diet)
- Avoid turning the horse out onto fast growing lush paddocks – in fact prolonged daily periods on a sparse paddock are better
- Some reports have shown that change to haylage/silage diet in hard working horses can increase incidence

2. Supplementary Feed

If the horse's energy need cannot be met entirely by forage alone then provide in addition either:

- a) Fibre-based complete manufactured feed (i.e. high fibre / low cereal - especially *low oat* – feed) e.g. high fibre complete nuts/cubes
- b) Short-chopped forage and/or chaff

Both of the above will probably be required to be fed with supplementary oil (especially b).

3. Supplementary fat / oil

This provides extra energy without high protein levels in the diet

- This is easiest to provide as either soya or corn oil.
- Corn oil seems to have the best palatability, some seem to get bored with soya oil.

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- Any supplementary oil should be introduced slowly. Most horses can safely be fed about 5-8% of the total diet as fat and about 400ml per day for a horse, and about 250 ml per day for a pony can be fed safely provided it has been introduced slowly.
- In order to obtain the benefits of feeding oil, it is recommended that it be fed for several months at least.
- It is important to note that oil does not provide any protein, vitamins or minerals. If the horse does not receive sufficient levels of these from the basal diet, consider adding some commercial supplement mix.
- It is recommended that additional Vitamin E is fed with any supplemental fat (see below)

4. Electrolytes

Electrolytes (sodium, potassium, magnesium and calcium) are very important for normal neuromuscular function.

- Some cases seem to be greatly helped or even 'cured' by appropriate electrolyte supplementation
- The supplementation should only be done on the results of a blood and urine test known as fractional excretion (FE). Again, we are able to perform this test in our practice laboratory.
- Random supplementation is unlikely to be beneficial

5. Salt

- Most complementary feeds do not provide sufficient salt (sodium and chloride) for horses that are in hard work and sweat a lot. As a rough guide, add about 56g (2 oz.) for an average 16hh hunter (building up slowly).
- For horses in little or no work, provision of a salt block may be sufficient. If the horse is receiving a vitamin/mineral supplement it should be of pure salt rather than a 'mineral block'.

6. Vitamin E and Selenium

- These are important for removal of 'free-radicals' – chemical compounds that can kill or damage muscle cells.
- Research shows that low levels of Vitamin E and selenium may be 'permissive' factors in this syndrome
- Additional supplementation is recommended as most feedstuffs and other supplements will not contain necessary levels to help prevent ERS. We have researched the products available and our recommended Vitamin E and selenium supplement is available from the surgery.

7. General Advice

- Avoid the addition of wheat bran to the diet (due to unbalanced calcium and phosphorus ratio)
- Small amounts of sugar beet may be fed, preferably the non-molassed variety
- Do not feed in anticipation of an increase work load – wait until additional energy is needed before the intake is increased.