



# Azoturia (“Tying-up”)

### What is azoturia?

Azoturia has many different names including “tying up” or “exertional rhabdomyolysis” and is a condition where a horse’s muscles become tight or ‘cramp up’ over their back and hindquarters. There is a range of preventing severity and signs but sometimes the muscles contract so much that they become rock solid and the horse’s back end appears to be glued to the floor.

In severe cases, myoglobin is released from the muscles and into the kidneys, which is why the horse’s urine can become a dark red colour. Azoturia should be classed as an emergency and your vet should be called straight away.

### What are the types of Azoturia?

Sporadic azoturia is a single episode due to external factors such as exercise, environment or diet e.g. a three day eventer on a really hot day.

Chronic azoturia is a recurrent problem due to an underlying defect in the muscles. It can be triggered by exercise or poor diet management, however, there will be an underlying defect in the muscles.



### Clinical signs:

- Firm painful muscles
- Excessive sweating
- Rapid heart rate
- Reluctant to move
- Dark red/brown urine
- Poor performance



### Diagnosing Azoturia:

Diagnosis of azoturia is by careful clinical examination, some cases can mimic other conditions such as colic or pelvic fracture so veterinary attention is important. Blood samples are usually taken to measure the levels of two muscle enzymes, creatinine kinase (CK) and aspartate aminotransferase (AST) which are released when muscles are damaged. The blood tests allow us to confirm the condition, to assess the severity of the attack and to compare to future samples when monitoring recovery.



# Kings Bounty Equine Practice Client Fact Sheet

## Treating azoturia

- The vet is likely to administer an intravenous painkiller and possibly a muscle relaxant
- Severely affected horses will require intravenous fluids to reduce the risk of kidney damage
- Box rest is needed initially while the muscles recover, followed by gentle exercise either in hand or turned out in a paddock depending on the individual case
- Blood tests can be repeated prior to commencing exercise to confirm that muscle enzyme levels have returned to normal

## Preventing azoturia

The best way to prevent horses from azoturia is through careful management:

- Avoid days off or prolonged box rest in susceptible horses
- Reducing hard feed when in light work
- Feeding a high fat/low starch diet
- There is some evidence that low vitamin E or selenium levels may be implicated in a few cases and supplementation can be given (contact your vet for further information)

In complicated cases and in certain susceptible breeds such as quarter horses and warmbloods, genetic testing and muscle biopsies can be useful to give further information.



## Remember azoturia is classed as an emergency!

If you suspect your horse has azoturia, your vet should be called straight away. If possible try not to move the horse and make the surroundings as quiet and safe as possible.

