

Tying up

Equine Exertional Rhabdomyolysis (ER) is the fancy medical term for what is commonly known as tying up. Unlike the common perception, tying up is not a straight-forward problem and incorporates many different categories.

WHAT IS ER?

ER occurs when there is an inadequate flow of oxygen-carrying blood to the muscles of an exercising horse. This alters the muscle fibers' ability to contract efficiently, and continued exercise causes muscle damage and cramping.

WHAT ARE THE CAUSES OF ER?

1. Horses maintained on a high carbohydrate diet during periods of rest, and then exercised heavily.
2. Unfit horses, worked too hard.
3. Young fillies (usually racehorses) with Recurrent Exertional Rhabdomyolysis (RER).
4. Polysaccharide Storage Myopathy (PSSM), a genetic disease seen in QH and related breeds.
5. Horses worked to a state of metabolic collapse (eg. Endurance horses).
6. Electrolyte and mineral imbalances

WHAT ARE THE SIGNS OF TYING UP?

The first sign of tying-up is a stiff gait and often complete reluctance to move forward. This can occur during exercise, but more commonly following work, when the horse has been standing still and is then asked to move. A horse that has tied-up often appears anxious, has an increased heart and respiratory rate and may be sweaty. On palpation (which is often resented!), the hindquarter muscles are hard and painful. In severely affected horses, the breakdown of muscle is enough to cause brown discolouration of their urine.

IMMEDIATE TREATMENT

Absolute restricted movement is the key, until the horse is willing to move without encouragement. We recommend veterinary treatment, as prescription medication is required to alleviate pain, reduce ongoing muscle damage and encourage muscle repair. Electrolyte supplement is also beneficial to maintain muscle hydration and support kidney function. It is important to keep the horse warm. Massage is best avoided until several days following an episode.

BLOOD TESTING (CK AND AST MUSCLE ENZYMES)

We can perform in-clinic blood tests, allowing us to quickly diagnose an episode of tying-up, assess the severity of muscle damage that has occurred and monitor recovery over the following weeks.

ONGOING MANAGEMENT

Once a horse has had an episode of tying-up, they are at a high risk of having repeat episodes. Certain dietary changes have been shown to reduce the incidence of tying-up, and this is particularly important for horses that experience chronic tying-up problems. Low carbohydrate, high fat diets are recommended, with additional Vitamin E, selenium and electrolyte supplementation. Management changes are also recommended, such as 24/7 turnout and extended warm-up and cool-down periods when the horse is exercised.

