

# Ask the Vet with Dr. Steve Fisch, DVM

Dear "Ask the Vet,"

I heard someone talking about losing a horse to "Monday Morning Sickness." I couldn't find much on-line in laymen's terms and was wondering if you could fill me in on what it is and what causes it?

Thanks,  
Ben

This month's Ask the Vet is part 2 and a continuation from last month where we answer the question above regarding "Monday Morning Sickness" or "Tying Up."

## Management of Chronic Tying Up Syndrome

There is no set treatment protocol for the management of horses with recurrent episodes of tying-up, but some general recommendations can be made. For situations in which a nervous disposition might be an important factor for tying-up, steps to calm the horse are important. Day-to-day management routines should be evaluated and changes made where needed. Sometimes moving the horse's location in the barn to be away from main traffic areas or close to horses with quiet dispositions or under veterinary supervision, administration of low doses of a tranquilizer prior to exercise may help.

A regular exercise program is important. Affected horses should be exercised daily. Long periods of complete stall rest (more than two days) should be avoided, particularly in very fit horses. Even when episodes of tying-up occur, rest periods should be kept to a minimum and the horse returned to its normal routine as quickly as possible.

Horses with RER can be returned to exercise when values for serum CK are within normal limits. Horses with PSSM often are very gradually re-



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introduced to a few minutes of exercise a day regardless of serum CK. PSSM horses should be worked gradually starting with only two to three minutes and adding a few minutes each day. After three weeks, CK can be re-evaluated and riding for 30 minutes can begin. Long recovery periods tend to increase the risk of recurrence when training is resumed. Warm-ups should be gradual and thorough. Overexertion is a risk factor for tying-up therefore increases in the duration and intensity of training sessions should be gradual.

Feeding programs should be evaluated. Easily implemented dietary changes have proven effective in the control of chronic tying-up. The most important consideration is a reduction in grain feeding with addition of fat (e.g., corn oil, soya oil, or rice bran) to ensure adequate

energy in the diet. If electrolyte imbalances are suspected, salt (one tablespoon of salt (NaCl) and Lite salt (KCL) per day) should be added to the ration. The diet might also require additional vitamin E and/or selenium.

The diet must contain adequate fiber. As an absolute minimum, each day horses should consume 1% of their body weight in forage and preferably 2%. An 1,100-pound horse would need 11 to 22 pounds of hay daily. Overall energy balance is important and it is critical to provide enough energy to meet the demands of exercise training and to maintain body condition.

It long has been recognized that reducing the level of grain feeding reduces the risk of tying-up. A study in the 1930s demonstrated that working draft horses were more likely to tie-up if fed a diet high in carbohydrates such as that provided by grains and molasses. Addition of fat to the diet of horses prone to tying-up is beneficial for two main reasons. Diets high in carbohydrates can cause excitement. A reduction in grain/sugar feeding with addition of fat to the diet may calm these horses. For horses with PSSM, the underlying problem is one of excess carbohydrate storage in muscle. Therefore grain and sugar feeding simply make matters worse by providing sugar for glycogen synthesis. It therefore is important to completely eliminate grain, sweet feed, and other simple sugars from the diet and to provide fat as an alternative source of energy.

There are various options for fat supplementation. These include vegetable oils such as corn and soya, rice bran which is a 20% fat product and purified animal fats. All these fat sources are very palatable. The diet should consist of good quality hay, a vitamin-mineral mix, as small amount of grain as possible with a maximum five pounds, fat and



added salt. Beet pulp or soya hulls are both highly digestible fiber sources and provide an alternative means for provision of energy and might allow for complete elimination of grain from the diet. A combination of good-quality grass hay, one to two pounds of rice bran, and a vitamin-mineral mix works well for horses with PSSM when combined with daily exercise and turnout. there is no cure for horses with chronic forms of tying-up, such as RER and PSSM. A combination of regular exercise, daily turnout, changes in environment and diet have been a successful combination that has allowed many affected horses to return to competition.

How much fat should be added to the diets of horses with chronic exertional rhabdomyolysis? Low-grain, fat-supplemented diets are beneficial in the management of horses prone to repeated episodes of tying-up. A high-fat palatable diet in horses will be between 10% to 12% fat. To meet the high-energy requirements of racehorses in training, some level of grain feeding is required in addition to fat supplementation. For Thoroughbred and Quarter horse racehorses and barrel horses

with chronic tying-up, diets with some grain but not more than five pounds per day and supplemental fat such that fat represents, by weight 10% to 12% of the diet are beneficial for prevention of the problem.

The situation is different for horses with polysaccharide storage myopathy. With PSSM, feeding grain is not allowable. This restriction also applies to other simple sugars, such as molasses. Therefore do not feed beet pulp that has added molasses. Fortunately, these horses often are easy-keepers and many times do well on a diet of hay, pasture, a small amount of a fat supplement such as one to two pounds of rice bran, and a vitamin-mineral supplement.

While there is no cure for horses with chronic forms of tying-up such as RER and PSSM, a combination of regular exercise, daily turnout, changes in environment, and diet have been a successful combination that has allowed many affected horses to return to competition. Tying up syndrome is a disease which requires an accurate diagnosis and a careful and well thought out management program.

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## Ask The Vet

We would like to help you get your horse health questions answered by a knowledgeable equine veterinarian. Submit your questions to us via email, we will present them to a qualified veterinarian that specialize in equine health and then publish the question

along with the vet's response in a future issue of The Horse Resource. Ask away..... Send questions to us at: [thehorseresource@msn.com](mailto:thehorseresource@msn.com) Subject line: "Ask the Vet"

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