

## Q & A—Overexertion in Horses

**Q** How common is overexertion in horses? Is this the same as “exhaustive disease syndrome”? Is there a way to avoid overexertion through proper nutrition?

**A** This question seems appropriate for this time of year, when many horsemen are actively competing their horses in a multitude of disciplines.

If by “overexertion” you mean the horse is asked to perform beyond its level of fitness or conditioning, often to the point of fatigue or injury, then overexertion is likely a common occurrence among sport horses. To minimize the risk of fatigue or injury, a well-designed conditioning program should be implemented. Such a program takes into account the individual horse (age, experience, present physical condition and predisposition to injuries), the


sport in which it competes (level of competition and the proposed competition schedule), and the environment (weather).

Though a nutritionally balanced diet is undeniably a feature of any successful conditioning program (the horse must consume adequate dietary energy to fuel exercise), diet alone will not prevent overexertion. Avoidance of overexertion depends almost entirely on the creation of an exercise program that slowly conditions a horse to the level of fitness that will be necessary for competition. Familiarity with the horse is also key in recognizing when a horse may be faltering due to lack of proper conditioning.

With that said, exhaustive disease syndrome has been diagnosed in horses, though usually only those that compete in submaximal exercise for a sustained period of time such as three-day eventing and endurance riding. The extreme fatigue associated with this syndrome is linked to nutrition, but only in the sense that the horse was not adequately nourished or hydrated for the athletic task, or factors related to the competition (heat and humidity) exacerbated normal metabolic processes.

Simply stated, exhaustive disease syndrome is characterized by an empty fuel tank. This lack of energy is usually accompanied by electrolyte and fluid imbalances. When these imbalances occur, the mechanism designed for heat dissipation—namely sweating—operates inefficiently and the horse is unable to adequately cool itself. The elevated body temperature leaves the horse vulnerable to heat-related injuries involving the cardiovascular, nervous, and muscular systems.

Clinical signs of exhaustive disease syndrome include depression, dehydration, lack of interest in feed or water despite dehydration, and significantly elevated body temperature (sometimes exceeding 41° C [106° F]) for an extended period.

Prevention of exhaustive disease syndrome centers on a carefully designed conditioning program that appropriately prepares a horse for low-intensity, long-duration exercise. This conditioning program should include a well-formulated diet so the horse has at his disposal appropriate energy reserves to perform his job. Additionally, a balanced electrolyte supplement should be provided during training and competition when significant sweat loss is noted. Efforts to keep the horse properly hydrated during extended periods of athletic effort will help prevent the development of fluid and electrolyte disturbances. 

*Horses that are properly conditioned for three-day events and endurance rides rarely feel the effects of overexertion. However, those horses whose training regimens are less thoughtfully planned may encounter problems.*



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