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A horse asked to perform strenuous exercise often is pushed to the limits of his body's mechanisms to recover. In most cases, these mechanisms allow the horse to finish the exercise with no problem. Sometimes, however, the horse's ability to recover is inadequate, putting the horse into a shock-like state. This means that more than one organ--such as the muscles, kidneys, central nervous system, or clotting system--might stop functioning properly. Without prompt veterinary care, the horse might die.

Examples of exercise that can lead to exhaustion include endurance and competitive trail rides, three-day events, and foxhunting. The chances of overworking a horse increase when any of the following conditions exist:

- heat and humidity
- poor fitness
- high altitude
- rough or steep terrain
- rider inexperience
- the horse has the inability to sweat
- presence of another disease or lameness

An exhausted horse typically is distressed and anxious. He might have a high heart and respiratory rate that does not decrease with rest, and his skin might feel hot and dry. Signs of shock include pale, dry mucous membranes; increased capillary refill time; increased jugular vein fill time; a weak, irregular pulse; and no gut sounds. Some horses become stiff and experience pain due to muscle cell damage, which can be detected by observing red urine or by running specific blood tests. Horses affected this badly might go down or develop other, often life-threatening conditions such as laminitis, kidney failure, or diarrhea. A badly affected horse also might appear wobbly or demented.

Horses with any of these signs must be treated right away. While waiting for the veterinarian to arrive, the horse should be moved slowly to a cool, shady area, if possible. Strong efforts should be made to lower the rectal temperature below 100.5 degrees Fahrenheit. The best remedy is whole-body ice water rinses in front of fans, or simply repeated rinsing/scraping cycles. In the past, riders were cautioned against applying cold water to the muscles of overheated horses because it could make the condition worse. However, research has shown that this method quickly and safely reduces the horse's core temperature, protecting him from serious illness.

Once the veterinarian arrives, he or she will decide the right type, amount, and method of fluids to be given based on the horse's condition, the type of exercise, and the response to treatment. Medications might be given to relieve pain and improve proper metabolism.

Ideally, the horse should not be transported for 48 hours.

Based on the conditions listed above, there are a number of ways to help prevent exhaustion in the horse. For example, horses should be thoroughly prepared over the same type of terrain over which the event will be held. If the event involves transporting them to a hot, humid climate (the 1996 Atlanta Olympics is a good example), they should be given at least three weeks to get used to the conditions in the new location.

The commonly used method of "salt-loading" a horse for several days before a competition probably offers no advantages. However, your veterinarian might recommend a specific electrolyte paste, top-dress, or mixture be added to a second bucket of water just before and during exercise to protect against electrolyte losses. Horses should have free-choice access to water (and roughage) during training, before the event, and at each rest stop, if this applies to your sport. It generally is accepted that horses (and humans) do not voluntarily drink enough water or take in enough electrolytes to completely prevent dehydration. Therefore, every effort should be made to replace fluid and electrolyte losses during the overnight portion of events.

Also, it probably is wise to avoid feeding a large concentrate meal before a competition. Instead, small amounts (one to two pounds) of concentrate can be fed one to two hours before the event, and at each rest stop (if this applies to your sport). In events that span more than one day, these small amounts of concentrate should be fed every few hours until competition begins again.

Being able to identify and assist an exhausted horse--as well as knowing how to prevent the condition--might save your horse or the horse of a friend or competitor. Consult your veterinarian for other ways to bring your horse home from your particular competition in the best physical condition.

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