

WATER ON, WATER OFF...Keeping your (horse's) Cool

by Esther "Boots" Wright, Chairman Events Standards Committee

You've just finished your marathon, you're in the vet check after section E and the vet says "Your horse's temp is 104 and his P&R's are 80 and 100. What does that mean?"

What those numbers are is a description of how your horse is dealing with and recuperating from the stresses of the marathon. Here, I'll talk about the temperature.

Let's backtrack... You've decided to move up a competitive level. (I say this because at the Training level, fewer hazards are driven with fewer gates and the time in the hazards is not taken.) You've put all those endless hours of going around and around in circles of varying sizes to good use. You really thought you were perfecting your dressage and your accuracy in the cones, huh? Well, you were doing those, but you were also putting what the race horse people call "bottom" on your horse.



Vet taking pulse and respiration as Judge looks on.

What is "bottom"? It's the increased stamina your horse develops from the long, slow work. It's the ability the horse develops to recover from stress. Part of that recovery is dissipating the heat his body makes through pushing the breastplate. (A physics teachable moment here: the horse responds to your stimulus asking him to move forward by pushing against the ground with his feet and against the breastplate with his chest. He is doing this because he is kind, well-trained and doing what you have asked him to do. He is also avoiding falling on his face by putting one foot in front of the other. The carriage is merely an afterthought following along behind. Yes, it is being pulled by the horse but only because he is PUSHING on the breastplate.)

Anyway, when your horse works, he gets hot, his temperature goes up and he sweats. His pulse (heart beats per minute) and respiration (breaths per minute) will go up as well. It's not necessarily how hot he gets, although that decides how you deal with him, it's how quickly the horse can recover from the heat.

When a horse works, he inhales air to feed oxygen to his muscles. It also cools his blood because his heart is pumping blood through the vessels surrounding his lungs and just under his skin. The veins and arteries are acting like your car's radiator does. By exposing blood to cooler temperatures (the air) or sweat evaporating (another physics moment: the coldest temperature water achieves is just as it evaporates, not the temperature of ice which produces heat by melting... go figure) the blood is cooled and when it is circulated back into the body, it cools it, too.

When your horse has worked really hard, he sweats and his blood vessels expand. You can see them standing out on his neck, the insides of his legs and his under belly. Your job as a horseman is to help him cool himself by applying cold water and ice, sponging or scraping the water off and putting more on again and again. Give him sips of water every 4-5 minutes or so. Water on, water off (sponges, scrapers and baggies of ice are good) and sips of water. After his temp comes down, walking is a great idea. Practice this at home before you come to an event. That way you will know how your horse will react to liniment, and ice water sponges under between their hind legs.

So, before the marathon, you check the weather. Hot, humid? Cool, dry? You will have picked up several bags of ice, collected AT LEAST one sponge and scraper and two buckets- one for drinking, one for washing (alcohol or liniment may be added to the wash water, but beware of cuts and scrapes...)and taken these to the vet check areas. If the one after Section D is not in the same place or near to the one after Section E, you will have to double up on the supplies. If you drive multiples, the numbers of buckets, sponges, etc. escalates. (as will the number of helpers...)



Get electrolytes into your horse anyway you can.



You must have a navigator and before the marathon, you should discuss with him or her what to do in the vet checks. At the end of D, you sit in your carriage and hold your horse. You may not get out of the carriage unless your groom gets in to hold the horse. So, while you sit there thinking about your routes in the hazards, your hard-working groom is cooling out your equally hard-working horse. Cool or cold water is probably all you'll need here as A and D are normally not too stressful. Your horse may come in with a temp of 102 or so. This is pretty normal but will require cooling before going out on E. If your horse doesn't recover sufficiently, you may not be allowed to go out on E. It's the vet's call although the Judge in the vet check has the responsibility of sending you out or not.

Here's where the first bit of water on, water off is necessary. It's the best way to cool out your horse and, in 10 minutes will usually do the trick. Offering your horse water to drink is good. My ponies will usually tell whoever is sponging them that they would like a drink by sticking their noses in any bucket that gets remotely near them. Others may need to be offered the bucket and even then, may just rinse their mouths and not actually drink. Or they may play in the bucket. This is a good thing as it shows you the horse is not tired at all. It also gives your groom a refreshing bath.

After the last hazard, assess your horse's condition. Is he still lively? Is he listless and tired? Is he breathing very hard or panting? (Side note: horses who pant are trying to move vast volumes of air quickly. It's not a bad thing unless his panting doesn't slow down.) A really hot, stressed horse behaves like a really sick one. He will "go inside himself" and not react to outside stimuli. He may act depressed with a lowered head and splayed legs. He may stagger.

At the vet check, if the horse is very hot or stressed, immediate cooling is necessary. You will have the info from the vet and if his temp is above 104 or so, get to work FAST. More water is a must; water on, water off, keep that cold water evaporating. If you have more than one person helping you, keep rubbing ice or cold water on the large blood vessels on the front legs, between his back legs and underbelly. It is helpful if the vet or another person can keep re-checking the horse's temperature. One of the things I love about driving people is that they will pitch right in and help another driver to help his horse.

In the case of a really hot horse-107 or 108- three or four folks per horse is the best; one to hold him, one on each side of him cooling and one to get his boots or bandages off and help with un-hooking, un-harnessing, thermometer and to get more ice or water. In this case DO NOT ask the horse to pull the carriage. NOT ONE STEP! Start cooling the horse before you even try to un-hook or un-harness. Only when the horse has started to stabilize and his temp has come down a degree or more, should you get his harness off.

Body temps of 106 or above are very serious conditions. Temps of 107 or 108 are potentially fatal. If a horse with these temperatures isn't cooled out very rapidly, brain damage can occur and his organs can start shutting down. When a horse this hot comes in to the end of E, the more people available to cool him the better. Cool him and let him stand still. You'll notice when he starts to become himself again. He'll look for some grass to nibble and for a drink. At this point you can walk him a while. If he wants to pee, let him. Consider the fact that the urine is probably still 107 or 108 and the best thing you can do is to let him get rid of it. If he'll roll, allow him, or better yet if there's an area for turnout, you can let him go for a while under close supervision. Keep him moving and return to the water on water off until the water coming off his body is cool and the blood vessels have returned to their normal size. At this point, his temp should be close to normal.

After you have cooled the horse and he is back in his stall, check on him every hour or so. Take his temperature as it can spike. Walk him several times during the afternoon and evening. Make sure he has

clean water to drink and hay to munch. If his temp has spiked go back to cooling him and if he looks stressed, I would call the vet. A horse that has been very hot sometimes takes long hours to really recover.

It is really to yours and your horse's benefit to chat with your vet. He or she will have good info to pass along. There are also some really good books on conditioning a horse.

Our sport asks many difficult questions of both horse and human. It is our responsibility to be the best horse keepers we can. Hear what your horse is telling you. You'll both be the better for it.