



Heat Stroke in Working Stock Dogs

This article is aimed at addressing a condition that occurs all too frequently in working stock dogs around the world. This problem is overheating a dog in working environments that can vary from hot/humid areas, very dry desert country, or high altitude mountains. This subject came to light after seeing a post on Facebook from Australia. The following is a short correspondence between Dr. Janice Mytton, who has practiced veterinary medicine for over 40 years, and Dr. Mark Koepl, who has been the head veterinarian at an Emergency and Critical Care Hospital for over 30 years.

Dr. Janice Mytton -“Hi, Mark! Hope all is going well. A question for you... in Australia many dog people say that when a dog is overheated, it should be put in cold water, but not to put water on the head and back. Is there any reason for this?

Dr. Mark Koeppel—"It can be life saving to immerse a fully overheated dog in tepid to cool water. There is zero basis to avoid head and back and must be an Australian old wives tale! Head and ears are the most dynamic heat exchange areas and maybe paws."

Dr. Janice Mytton: " Thanks, I thought I was losing the plot."

Dr. Janice Mytton: "The Australians came back with hearing that many of the old guys swear by cutting open a distended vessel in the ear flap on dogs that are overheated. Your thoughts, other than being thankful you are not a Kelpie in the Outback!"

Dr. Koeppel: Yes, I suppose a massive hemorrhage would lower body temperature. Some might survive. Also yes, glad not to be an Outback Kelpie. Probably why the breed is so tough... got rid of all the whimps that overheated and/or didn't survive iatrogenic hypovolemic shock!"

The above exchange is not meant to be the final word, but the experience of long time veterinarians, both of whom have dealt with numerous heat stroke patients. The key to recovery is early recognition and treatment. Dogs with heat stroke present with extreme panting, hyper-salivation and darkened mucous membranes. Heat stroke victims may have residual neurologic deficits and be predisposed to subsequent over heating episodes. Acute kidney failure is also a potentially life threatening effect of hyperthermia and is made worse by dehydration and lack of blood to the kidneys. **Therefore, decreasing blood volume (i.e. nicking an ear and letting blood out of the body) is not beneficial to the dog.**

Dr. Mark Koeppel concluded, "Prevention is everything. Once the overheating process ramps up, it's hard to stop the damage and frequent death. For those that do survive, one of the lasting effects is persistent impairment of the brain's ability to thermoregulate. So the survivor is prone to recurrent easy rapid onset episodes of hyperthermia and all the resulting organ damage."

We work our dogs in a high altitude semi-dry environment, where distances between watering locations can be excessive. Hence, when we are horseback, we will carry two ½ gallon bottles of water on each of our horses in case one of our dogs appears to be suffering from the heat. Being

watchful and responding quickly on the spot is better than trying to get to a distant watering hole. We have tried to instill this on other stock dog folks and in most cases succeed, but some with an old school mind set don't listen and, as a result, they end up with dogs that die or will live the rest of their lives compromised as a result of an overheating experience that permanently damaged their internal organs.

Although we live in an area of low humidity, locations that have the quickest and most detrimental effect on working dogs are those parts of the country that have a very hot and humid environment. Overheating can occur in a short time and frequently cannot be reversed.

Here is a thought for the readers of this article to ponder. When you are working on very hot days and need to cool off, what do you typically do? First, drinking plenty of water is very important. Then, in my case, I take off my cowboy hat, immerse it in cool water, and place it back on my head (I wear a palm leaf Sunbody Hat that likes being immersed in water, which also lengthens the hat's life). If it's really hot, I submerge my whole head, and if wearing a scarf, wet it down and put it back around my neck for the cooling effect. There may be many that think my brain is a little addled, but this actually cools me off.

In the case of North America, we are seeing more and more stock people starting to use well trained stock dogs on both sheep and cattle properties. As a result, the learning curve for dealing with canine heat stroke is behind other countries that have relied on their dogs for generations. Hopefully, this information helps you and your canine partner enjoy a long and healthy working relationship.

A final thought: Teach your stock dog to go to water on command. Many Kelpies and Border Collies are so intense on their work that they will bypass water, to their detriment. At least you are able to be smarter than your dog when it comes to this!