

Just What Is a CRI?

JUST WHAT IS A CRI? The Cardiac Recovery Index, CRI, or "Ridgway Trot" has proven to be a very useful tool for determining when a horse is becoming overstressed. Its unique value is that it detects problems at their onset, before other indicators register that a danger zone has been crossed.

The CRI is performed as follows. The horse's pulse is taken and the time is noted (for example, pulse 64; time = 1:03:07). The horse is then trotted in hand approximately 125 feet (about 45 steps) away from a point and then turned around and trotted back. After 60 seconds have passed from the initial pulse taking, the pulse is rechecked. It should be no higher than the first reading (for example, pulse 64). An accurate pulse count is imperative or the test will not be valid. If the pulse has increased the second time it is checked, there is cause for concern. While a four beat per minute increase (64 to 68) is not alarming, as the increase grows so should concern. A 64 to 72 reading, for example, would be fair warning that the horse is in enough distress that continuing the ride would be risky. Generally speaking, if the veterinarian gets a poor CRI reading, he will ask the rider to come back again for a recheck. At that time the CRI would be repeated, and unless it had normalized, the horse would probably be pulled from the ride. The veterinarian would most likely evaluate the horse as a whole before making his decision, but poor metabolic readings or lameness inevitably seem to accompany a poor CRI.

CRI - Cardiac Recovery Index - The cardiac recovery index measures how well a horse recovers after a short stress. While a horse may come into the vet check with a high heart rate, the rider can lower the heart rate in a number of ways. A conditioned horse's heart rate will lower on its own with little help of the rider. The rider can facilitate the lowering of the heart rate by cooling the horse, through water on the neck and legs of the horse, or even by icing the horse down. As the temperature of the horse declines, the heart rate will also decline. However, if the horse has been over stressed, even after the heart rate has come down, if the horse is stressed again, the heart rate will jump up again. When the rider presents the horse to the vet for the CRI, the vet takes the pulse. Let's say the horse's rate is at criteria of 64 (or 16 in 15 seconds). Since the horse has been in the check for several minutes, the vet may be suspicious that the horse is not in very good shape. The vet check's his/her watch and asks the rider to trot the horse out to a point 125 feet away and back. While the horse is trotting, the vet checks for lameness. From the time of the start of the trot, to the time the vet checks the heart rate again, is exactly one minute - not more and not less. This time, since the horse was stressed and barely recovered, the heart rate is up to 80 (or 20 in 15 seconds). The vet would give a warning, ask for the horse to rest and come back, or pull the horse - depending on many factors. What would show on the card was 16/20. Now let's say there is a horse that is better conditioned that comes to the vet. The initial heart rate is still at 64 (16 in 15). The horse trots out and back. The rider calms the horse. The vet takes the heart rate again, and now the rate is 60 (15 in 15). This horse is ready to go. The added stress of trotting out 250 feet not only did not stress the horse, but the horse was in such good shape that the rate continued to drop. What would show on the card was 16/15. One more example. A horse comes to the vet with a rate of 40 (10 in 15). After the trot out, the rate is 36 (9 in 15). You might think this horse hadn't even started the ride. What would show on the card was 10/9. When the horse is presented to the vet, the heart rate should be lower than criteria. If the heart rate is above criteria, the vet will probably look at the card to see how long it took the horse to come down to criteria. If the heart rate is still at criteria, and the horse has been waiting around for several minutes, again the vet might be a bit concerned. After the CRI, the heart rate must come down to the same rate or below as at the start of the CRI. If it does not come down, then the vet can ask for a recheck, or can pull the horse. If the heart rate comes back to the same level as at the start of the CRI, then the horse is doing fine. If the heart rate is below the start of the CRI, then the horse is doing extremely well. As always, there are some tricks you can play to lower the heart rate even while the vet is checking.

- First, if another horse walks by, particularly a best buddy, then the horse's rate is sure to go up.
- Stand such that you block the horse's view of whatever might excite him.
- Do not let the horse eat while the vet is taking the pulse. Do not let the horse throw his head way up.
- Preferably, have the horse hold his head in a "neutral" position.
- If you have a calming technique, such as gently rubbing the horse, do so.
- And for yourself, take a deep breath and try to relax to show your horse that the excitement is over, no more trotting right now