

Exercise Intolerance

- This problem is evidenced by the horse's inability or refusal to go any further on the trail.
- Pushing the horse at this point can cause severe and perhaps life threatening problems.
- Often mistaken as colic because the horse is so painful and gut sounds are diminished
- Heat stress illness is separate from muscle fatigue issues; though both can lead to exercise exhaustion
- Both heat stress and muscle disorders lead to potential fluid and electrolyte losses and deficiencies.
- **Do not give electrolytes if the horse is not drinking.**
- **Do not give Bute if the horse is dehydrated.**

Recovery is the key to knowing if the horse has been overworked

Know your horse's recovery rate

1. Ride up a steep hill
2. At the top, dismount immediately and take the heart rate
3. Wait 5 minutes
4. Take the heart rate again. It should be ≤ 60 BPM

Exertional Myopathy - Tying-up, Azoturia

- A horse developing ER will usually begin showing signs right after the beginning of exercise, although for mild cases, signs may not be seen until after the horse is cooled out.
- Can occur quickly if exercised way over fitness levels acutely or gradually if just slightly over fitness levels for prolonged periods.
- Symptoms can be missed but generally the horse will start sweating more than would be expected for the stage of ride, the horse might slow down and not want to go normally. This is the time to stop and assess symptoms before going to exercise exhaustion.
- If signs of ER are seen, the horse should not be moved. Movement can cause further muscle damage.

Signs

Mild to Moderate

Do not push on with these early signs and you won't need to deal with these severe signs that can lead to extensive vet costs, kidney failure, or a dead horse.

- Sweating
- Reluctance to move
- Stiffness or shortened gait
- Muscle spasms or cramps
- Palpate for hard, painful muscles, especially in the hindquarters

Severe – generally seen right after work has begun

- Reluctance to move
- Sweating
- Pain
- Shifting of weight from side to side
- Standing hunched and tense
- Dehydration
- Loss of appetite
- Low grade fever
- Elevated heart rate > 60 BPM

- Elevated respiratory rate > 30
- Anxious attitude
- May have coffee-colored urine

First Aid

1. Get the horse into the shade and **STOP**
2. If possible, stand the horse in a creek and sponge the jugular furrows, under the arm pits and inside the thighs w/ cool water.
3. Wait for muscles to be cleansed by blood flow which can take all day.
4. **IF the horse is eating and drinking**
 - a. Administer 10 cc Banamine IV or 2 grams Bute paste (refer to Equine Medications instruction sheet). (Acepromazine is a vasodilator and can be given as well)
 - b. Administer Electrolytes
5. Provide free choice food and water
6. Make camp, monitor vitals (HR, temp, RR, CRT) and muscle suppleness or tenseness.
7. If improvement is seen, **SLOWLY** lead the horse back to the trailhead
 - a. Stop in 30 seconds, assess horse, rest for a few minutes
 - b. Stop again after 1 minute, assess horse, rest for a few minutes
 - c. Stop again after 5 minutes, assess horse, rest for 5 minutes
 - d. Stop again after 10 minutes, assess horse, rest for 5 minutes
 - e. Stop every 15 minutes, assess horse, rest 5-10 minutes
 - f. **STOP if symptoms get worse**
8. If a trailer is accessible, seek Veterinary assistance as soon as possible

Heat Stress Illness

- Heat Stress Illness is separate from muscle fatigue issues; both can lead to Exercise Exhaustion.
- Heat Stress Illness can come from high ambient temps without exercise but usually it comes from strenuous exercise in hot and/or humid conditions.
- Both heat stress and muscle disorders lead to potential fluid and electrolyte losses and deficiencies.

Exercise Exhaustion or Heat Exhaustion

- Can occur after relatively brief maximal exercise or after prolonged submaximal exercise.
- Exhaustion rarely occurs unless lots of initiating symptoms get missed and the horse is really pushed beyond its physical fitness levels by quite a bit.
- Do not push on with these early signs and you won't need to deal with these severe signs that can lead to extensive vet costs, kidney failure or worse a dead horse.

Signs

May show any combination of the following signs, but will rarely show all of them

- Depression
- dehydration with a lack of thirst
- increased capillary refill time
- decreased gastrointestinal sounds
- Persistently elevated body temperature, heart rate, and respiratory rate that do not return to normal when rested
- Little interest in surroundings
- Eyes dull, sunken, and glazed
- Ears hang limply
- Tense facial muscles

- Anxious expression, especially if accompanied by colic or muscle problems
- Dry mouth
- Temperature up to 106 degrees F
- Muscles of the anus are loose
- Anus will not respond to pinch by puckering closed. This is one of the best indications of severe exhaustion.
- Hard and dry feces
- Urine output is decreased
- Respiration rate faster than heart rate
- an irregular heart rhythm
- muscle cramps and spasms
- the presence of "thumps"
- May or may not have profuse sweating

First Aid

First aid is OK, but horses in this level of trouble really need Veterinary and Intensive Care and even then, prognosis can still be guarded.

1. Get the horse into the shade and **STOP**
2. If possible, stand the horse in a creek and sponge the jugular furrows, under the arm pits and inside the thighs w/ cool water.
3. Wait for muscles to be cleansed by blood flow which can take all day.
4. **IF the horse is eating and drinking**
 - a. Administer 10 cc Banamine IV or 2 grams Bute paste (refer to Equine Medications instruction sheet)
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7. If improvement is seen, **SLOWLY** lead the horse back to the trailhead
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 - c. Stop again after 5 minutes, assess horse, rest for 5 minutes
 - d. Stop again after 10 minutes, assess horse, rest for 5 minutes
 - e. Stop every 15 minutes, assess horse, rest 5-10 minutes
 - f. STOP if symptoms get worse**
8. Seek Veterinary assistance as soon as possible

Heat Stroke

- Heat Stroke is a severe problem with thermoregulation problems that affect multiple organs including the brain
- Result of prolonged exposure to excessive heat, over exertion in a hot humid climate, or confinement in a hot, poorly vented trailer.
- Lack of water contributes to the problem.
- Very Rare

Signs

- Major central nervous system involvement – seizing, blindness, etc.
- Temperature > 105 degrees F
- Dry skin; the horse ceases to sweat
- Weakness
- Stumbling

- Refusal to continue to work
- Depression
- Loss of appetite
- Increase respiratory rate > 40
- Dog-like panting
- Increased heart rate > 60 BPM
- Dark red or purplish membranes

First Aid

1. Place the horse in shade
2. Sponge the horse with cold water, especially the regions of the head, neck, and large veins – belly and inside the hind legs
3. If water is unavailable use ice and rubbing alcohol
4. If the horse appears disoriented, apply ice to the head
5. Continue cooling as rapidly as possible until the temperature is < 105 degrees F
6. Then cool the horse at a rate of 1 degree F every 30-40 minutes
7. If cooled too quickly, the horse may become severely chilled which can contribute to shock
8. Offer water.
9. If the horse is sweating excessively and willing to drink, administer a dose of electrolytes
10. Walk the horse back to the trailhead monitoring vital signs every 15 minutes.
11. Rest if the horse shows signs of distress.
12. Seek Veterinary assistance ASAP