

HOT



What you need to know about keeping your horse properly thermoregulated in hot weather

HOT FACTS



- Keeping cool takes more effort due to the sheer mass of a horse
- A working horse's muscles produce a vast amount of heat – particularly during exercise
- During intense exercise, horses can lose up to 15-20 litres per hour in sweat
- Horses wear a coat all year long!

WATER REQUIREMENTS



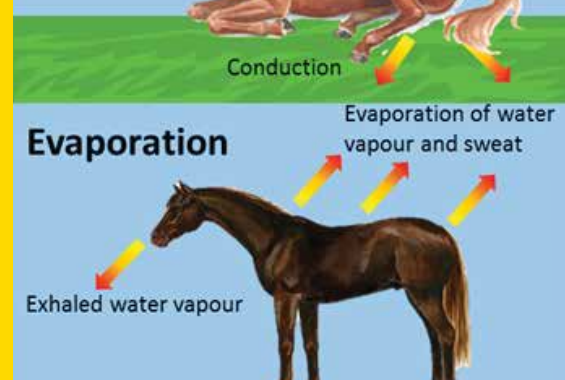
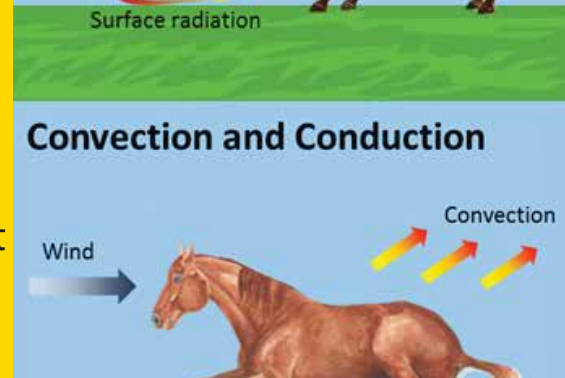
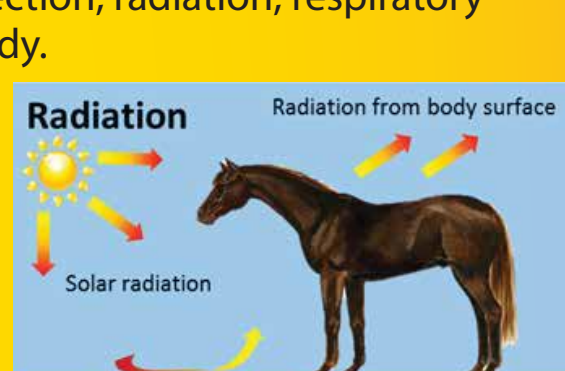
- The average horse drinks 22 to 45 litres (5 to 10 gallons) of fresh water per day
- When it gets hot (i.e., ambient temperatures above 85°F/29.4°C), a horse's drinking frequency and volume will increase considerably
- Water needs increase on hot humid days and days with intensive work

Keep your horse well-hydrated – ESPECIALLY WHEN IT IS HOT – by offering 24-hour access to clean, quality water regardless of whether he's stabled, turned out or competing. When traveling, make stops every 2-4 hours and offer water (more often when really hot).

4 WAYS HORSES LOSE HEAT

The horse's thermoregulatory system utilizes convection, radiation, respiratory losses and evaporation to remove heat from the body.

1. **Radiant heat loss** – occurs when all or part of the surroundings are cooler than the surface of the animals
2. **Convective heat loss** – occurs when air moves around an animal's surface
3. **Conduction** – occurs when animals are in direct contact with cooler surfaces
4. **Evaporation** – involves the loss of heat through vaporization of water or sweat
 - its rate does not depend on temperature directly, but on the vapour pressure gradient (the relative humidity) between the air and the evaporative surface
 - in hot conditions, evaporation becomes the major route of heat loss and horses must sweat to lose heat
 - the sweat coats the hairs and as air flows over, it pulls the moisture and the heat off the horse as the sweat evaporates
 - evaporation of sweat is compromised for horses during conditions of high humidity, and therefore contributes less to heat loss but can rapidly dehydrate the horse



HEAT STRESS

In humid conditions, the air is already saturated with moisture. This reduces evaporative cooling, causing sweat to cling to the hair like a hot blanket – resulting in less heat loss. Special care must be taken on hot, humid days to avoid heat stress.

Signs of heat stress:

- decrease in performance
- elevated rectal temperature
- high heart rate
- respiratory rate higher than heart rate
- panting/rapid breathing, with flared nostrils



Reduce the chance of heat stress:

- Consider factors that affect water intake: intensity of exercise, size of horse, lactating mares, dry feed, rising temperatures and humidity
- Replace electrolytes lost in sweat with an electrolyte solution and proper hydration
- Allow time for the horse to acclimatize to working in hotter conditions (at least two weeks)
- Seek out shade and cool breezes to help evaporate sweat
- Ride at cooler times of the day
- Cool out by pouring fresh, cold water on the horse and scrape until the horse is cool (be sure that water coming off the horse is not heating up)
- Provide ample drinking water

Learn to do a [Horse Health Check](#)

More tips on [reducing risk of heat stress](#)

Read more about the importance of [hydration in performance horses](#)



DEHYDRATION



Look for signs:

- dullness
- sunken eye
- lethargy
- depression
- dry skin and mouth
- drawn up flanks (tucked up)
- thick saliva, dry and pale mucous membranes
- high level of protein in the blood (determined by a blood sample)

Skin Pinch – This picture shows a horse with a severe prolongation of the skin pinch, indicating a serious level of dehydration.

Learn how to [perform a skin pinch test](#)

ELECTROLYTES

Dehydration in horses can be an extremely serious situation and may occur during strenuous exercise, stressful situations, or in cases of bouts of diarrhea. The lack of water can include the lack of electrolytes. Electrolytes include the minerals: sodium, chloride, potassium, magnesium and calcium. The lack of electrolytes can lead to kidney failure and other health issues if the horse is not quickly rehydrated.

[More info...](#)

MYTH BUSTERS

Won't pouring cold water on the horse cause him to colic or tie up?

Tying up isn't from the application of cold water. It happens inside the muscle as a result of dehydration and accumulated lactic acid. Dehydration can also cause impaction colic.

After work, I can only give my horse seven sips of water right?

The "seven sips" guideline was a common practice but new research shows us better practices. After working, let the horse's breathing slow down by walking him and then let him drink. Keep him walking after drinking and offer more water every few minutes. When the horse drinks during this "window" of time (while he feels hot) he is more likely to fully restore hydration. Restricting water after exercise, often results in delayed rehydration, which slows down recovery from exercise and increases the chances of heat stress related issues.



REMEMBER – WHEN YOU ARE HOT, YOUR HORSE IS HOTTER!