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# EASING YOUR HORSE'S STALL REST STRESS

## FOLLOW THESE 12 TIPS TO IMPROVE YOUR HORSE'S WELFARE WHILE ON STALL REST FOR INJURY OR ILLNESS.

More than ever we know that keeping horses in stalls long-term can devastate their physical and mental health. In fact, the latest version of the Five Provisions for Welfare specifically tells us that to give our horses a good life, we must let them graze outdoors with friends.

Yet, the Five Provisions also tell us to ensure optimal health for our horses. And it can create quite the conundrum when that requires confining horses to a stall until they heal from an injury or illness. Indeed, with stall rest, we find ourselves sacrificing certain provisions to satisfy others.

Faced with this dilemma, owners and vets alike should compensate stall-rested horses for their lost freedom, says Gemma Pearson, BVMS, Cert. AVP (EM), MScR, CCAB, PhD, MRCVS, director of equine behavior at The Horse Trust and lecturer at The University of Edinburgh's Royal (Dick) School of Veterinary Studies, in Scotland.

Critically, that starts with empathy—considering mandatory stall rest “from that individual horse’s perspective,” she says.

With that in mind, here are 12 tips for getting horses through stall rest with as much welfare consideration as possible.

### 1. VISIT REGULARLY AND OFTEN

As highly social animals, horses form strong bonds with other equids as well as with humans who have been kind to them, researchers have shown. Therefore, horses appreciate visits from their favorite humans.

“It’s like visiting people in the hospital; I think it brightens their spirits,” says Amy McLean, PhD, assistant professor of teaching in the Department of Animal Science at the University of California, Davis. “Visit as much as you can, especially if they’re in a hospital setting, so they don’t feel so alone and isolated.”

Visiting owners can groom, pet, and scratch their horses, or just stand nearby as quiet company for a while, McLean says. They can also hand-walk and hand-graze their horses if veterinarians approve.

Owners should especially scratch wherever their horses love it the most, Pearson says, evident by their twitching upper lips or leaning into pressure. Doing so lowers heart rates and promotes relaxation, she explains.

### 2. PROMOTE BUDDY TIME

Our sources say keeping an equine friend in a neighboring stall can keep horses much happier and mentally healthier on stall rest.

Ideally, buddies should already be friends—especially when it comes to donkeys and mules, which form tight bonds with one or two individuals. “They pick who they like,” McLean says.

Even so, most horses interact with other horses, including strangers, adds Pearson. If they don’t get along with the neighbor, they might not touch them, but they’re generally happier having those horses nearby.

To allow safe interactions, people can separate the patient from the buddy using chest-high dividers between stalls, or even the “social box”—a Swiss invention that allows physical contact through safe, narrow gaps in the dividing wall. An owner can also temporarily tie their horse next to a buddy’s stall for social grooming or while they’re mucking out the stall, Pearson suggests.

Buddies don’t have to stay full-time in a stall. They can also roam freely in an adjoining paddock, our sources say. Horses can have multiple alternating buddies, so it’s not always the same one. Donkeys and mules, however, usually do better with their specific bonded partner.

Stall-rest buddies can also accompany patients during hand-walking and -grazing, McLean says. “It can be calming to have a friend around,” she says. Just be sure they stay at a safe distance to avoid engaging in rough play that could exacerbate an injury.

When no buddy is available, try a fake, Pearson suggests. In her hospital, horses maintained in slings seem to appreciate just seeing a horse mannequin outside the stall door, she says.

### 3. PLAY SOME BEETHOVEN OR ZEN NATURE

Researchers at Hartpury University, in the U.K., have shown that country music and classical music appear to promote calm behavior such as quietly munching on hay.

McLean’s team recently discovered that nature sounds—such as running water, chirping birds, and a gentle breeze through the tree leaves—create a similar effect. The researchers noted, on average, horses appeared less frustrated by their confinement, pawing and kicking less, while listening to these sounds, she says.

*continued on page 2*

Jazz music, however, appears to increase frustration and aggression—as well as established stereotypes (repetitive behaviors that appear to serve no purpose) such as cribbing, McLean adds.

Yet each horse is unique and might have individual music preferences. “You have to test which music your horse actually likes, to be sure,” she says.

#### **4. STIMULATE THE MIND (AND BODY)**

“Exercising” the brain leads to pleasurable spikes of dopamine in the brain, providing “valuable mental stimulation,” Pearson says.

Thus, owners can teach their stall-rested horses new tasks and practice old ones, she says. They could train their horses to recognize shapes or letters using positive reinforcement, for example. They could also train them to perform simple physical movements, such as lifting a limb or lowering the head—provided it’s safe to do so.

Teaching horses to perform carrot stretches can offer both mental and physical stimulation, Pearson adds. Such physiotherapy exercises—having the horse stretch the head to the side or down toward the forelimbs—help him maintain strength and suppleness during stall rest.

“Altering the novelty and complexity of the tasks will keep the horse’s brain engaged,” she explains. “So, mix up exercises that will help physical fitness with others the horse and owner find fun.”

#### **5. USE ENRICHMENT EQUIPMENT**

Environmental enrichment refers to the use of toys and other devices that give horses something to do and stimulate their senses. Common enrichments include mirrors, slow feeders, brushes attached to the walls for self-grooming, and balls—especially those that gradually release food.

Enrichment can also come from a variety of fiber choices—haylage, hay cubes, and chaff, for example—as well as from a variety of new fiber textures, such as lettuce, or chopped vegetables set in a frozen juice block, Pearson says.

Even so, an enrichment only works if the horses engage with it, she says.

Some horses might even react badly to certain types of enrichment, McLean adds. She’s had to remove mirrors from horses who find them upsetting. “One horse was literally trying to tear the mirror off the wall,” she recalls.

Despite the benefits environmental enrichments offer, owners should not be misled by the name, Pearson adds. “It suggests we’re creating a positive experience for the animal,” she says, citing ideas shared by Fritha Langford, PhD, animal welfare scientist at Newcastle University, in the U.K.

“Perhaps it would be better described as ‘reduced impoverishment’—as, at best, we’re returning them to a life worth living, but not a good life.”

#### **6. GET CREATIVE**

Your creativity can help horses get through the tough period of stall rest, says McLean. People can create apple mobiles, for example, or have horses bob for frozen fruit pieces floating in a water bucket or hanging from above. And they can make their own unique scratching posts.

Pearson suggests offering horses a smorgasbord of different odors to investigate and checking out other creative ideas offered online by the Blue Cross companion animal charity and the British Horse Society, both in the U.K. Their projects include wrapping stall bars with herbs and dandelions and sticking vegetables to the stall wall with smashed banana.

“I do think you can get creative,” McLean says. “You just have to be concerned about the safety of the materials you’re using.”

#### **7. BRING NATURE TO THE STALL**

Owners can always bring their confined equids some of the things they might have found outdoors, McLean says.

After checking on any risks of toxicity, people can collect branches from various trees and bushes that their animals might enjoy chewing or brushing up against, she says. Mules and donkeys especially appreciate them, she adds, as they “naturally chew on more fibrous shrub-type plants.”

Pearson recommends using safe branches that are easy to carry and don’t get in the way when horses lie down, she says. Her team also handpicks fresh grass and offers it to the patients in buckets.

#### **8. CYCLE THE ENRICHMENTS**

Having new and different items to discover keeps horses stimulated—but after a while, like any new toy, horses can lose interest in it.

Ideally, owners should rotate multiple enrichments, Pearson says.

How often should we rotate? That depends, McLean says. Personality matters a lot, so owners just need to observe their horses' behavior and switch objects when horses start to lose interest, or if they cause too much frustration or even fear.

## 9. USE 'MAZE PENS'

If—or when—horses are allowed to move around a little bit, they can spend time in a row of stall-sized pens, joined together with small openings on alternating edges of the pen, Pearson says. Ideally, farm managers should place pens on grass to allow horses to graze while moving.

Like mazes, these pens allow horses to move without letting them go faster than a walk as they weave from one entrance to the next, she says. People can start with two pens adjoined by a small passage before adding more pens to the row. Eventually, as horses are permitted to increase their exercise, pens can be made slightly larger, allowing for short trots before walking into the next pen.

While not feasible in every scenario, such “maze pens” help reduce frustration and make stall rest and return to exercise safer for horse and owner, Pearson says.

## 10. WATCH THE CLOCK

Keeping stalled horses stimulated isn't just a matter of providing enrichment once or twice a day, says McLean. Ideally, they need some sort of activity every few hours, at least during the daytime.

That means spacing out visits, hand-walking and -grazing (if allowed by the veterinarian), grooming, training, social time, introducing enrichment objects, and more throughout the day, she says. “It's important to look at the timetable of when horses are stimulated, to prevent them from getting bored and creating stereotypies, or just having reduced welfare.”

All the same, owners need to consider their own wellness during stall rest, Pearson adds. People should aim to do their best, within reason, during this difficult time, she says.

## 11. CUT THE CARBS

Horses on stall rest need plenty of fiber but not a lot of energy, our sources say. If they previously consumed concentrate feeds, these should be gradually tapered to avoid horses gaining weight or giving them more energy than they can expend.

By contrast, stall-rested horses need ad-libitum forage—ideally haylage or steamed hay to cut the asthma risks—for good gut and mental health, Pearson says. Horses tending toward obesity can eat soaked hay or a steamed hay/straw mix. Underweight horses can eat high-fiber concentrate feed and vegetable oil.

Horses on stall rest also need vitamins and minerals—more so as their bodies heal from illness or injury. So, if they're not on a feed that already meets their daily nutrient requirements, be sure they receive a ration balancer, McLean says.

## 12. OPT FOR DRUGS (WISELY)

If horses aren't coping with stall rest despite all the above efforts, it's time to get help from drugs, Pearson says.

She often starts noncoping horses on the anti-anxiety drug trazodone. Alprazolam—commonly known as the brand name Xanax—also works well, she says.

Still, Pearson recalls using alprazolam at low doses, in combination with trazodone and acepromazine, in a horse with a radial fracture. He was in a sling and, despite the drugs, became “increasingly aggressive to handle,” she says.

Additionally, the drug requires significant caution, as it can cause ataxia at high doses.

Fluoxetine—aka Prozac—can be useful long-term, but owners need to keep in mind it only starts taking effect after several weeks of treatment, Pearson says.

She believes medications can help horses on stall rest if used appropriately. Tranquilizers, antipsychotics, and anti-anxiety drugs vary from country to country (for example, fluphenazine and reserpine are used frequently in the U.S.). Talk with your vet about what might work best for your horse.

## TAKE-HOME MESSAGE

Getting a prescription for stall rest is not good news. But fortunately, scientific research and practical experience provide greater insight into making stall rest manageable and as low-stress as possible.

By carefully considering each horse's unique preferences and welfare needs, veterinarians, barn managers, and horse owners can ensure horses get through the challenges of stall rest.


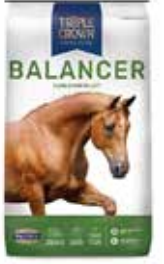
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# 6 MYTHS ABOUT COOLING HORSES IN HOT WEATHER

## IS IT HARMFUL TO SPRAY COLD WATER ON A HOT HORSE? SHOULD YOU SCRAPE YOUR HORSE AFTER HOSING HIM? TWO EXPERTS WEIGH IN.

Extreme heat can put horses at risk of developing heat stress or stroke, particularly those exercised in hot and humid weather. However, an appropriate post-exercise cooldown can prevent heat-related illness from occurring in your horse. In this article two experts bust common myths about cooling horses in hot and humid weather.

### SWEAT, THERMOREGULATION, AND HYDRATION IN HORSES

“Horses have a ‘poor engine’ since their muscle energy metabolism is not very efficient,” says Lidwien Verdegaal, MVM, DVM, PhD, EBVS, Dipl. RDVS, Dipl. ECVIM, senior lecturer of equine medicine at the University of Adelaide, in Australia. “Approximately 80% of the produced energy is released as metabolic heat.”

When horses generate more metabolic heat during exercise, the body activates heat loss mechanisms to keep core temperature within the thermoneutral zone (the range of ambient temperature in which an animal’s normal metabolism can maintain an essentially constant body temperature without extra effort). Blood transports the extra heat to the skin surface, where sweat helps it evaporate. Factors such as ambient temperature, high humidity, poor barn ventilation, prolonged exposure to direct sunlight, excessive work, transportation, and obesity can challenge this balance of heat loss/gain and cause horses to overheat.

“Sweat is a mixture of water, electrolytes, and proteins—specifically latherin (the substance that makes sweat foam or lather),” says Jane Williams, PhD, associate professor and head of research in the equine department at Hartpury University, in the U.K. “Horses produce sweat in response to homeostatic changes as a thermoregulatory mechanism.”

When horses sweat a lot, they risk becoming dehydrated. “Water balance in the horse’s body is controlled by hormone and electrolyte concentrations, which is why dehydration and electrolyte losses are linked,” says Williams. “Key to this is sodium; when sodium levels are high in the blood, antidiuretic hormone reduces water losses to conserve water and address this balance.”

Supplementing your horse’s diet with electrolytes in hot and humid conditions, particularly in working horses, can help prevent dehydration and support healthy muscle and cell function.

### COMMON MYTHS WHEN COOLING HORSES

#### Myth 1: Heat illness (e.g., heat stroke, exhaustion) only affects horses in hot and humid weather conditions.

Horses’ body temperatures can reach up to 102° F, even when exercising in cool temperatures, Verdegaal says. Therefore, horse owners should be aware that heat illness, although less likely, can also occur with horses exercised (or transported) in cold climates.

“In climates with high humidity, however, while the horse may sweat, the evaporation rate will be slower and, therefore, cooling is less efficient due to the higher concentration of water molecules in the air,” Williams adds.

#### Myth 2: Do not apply cold water on hot horses because this can cause shock, colic, or tying up.

“The repeated application of cold water (e.g., every minute) is the best approach when cooling down horses in hot and humid conditions,” Williams says. Water applied to a hot horse’s body will heat rapidly, reducing the water’s positive cooling effect. She adds that removing tack after exercise increases the body’s surface area available for evaporation. Walking the horse prevents exertional rhabdomyolysis while repeatedly applying the cold water.

#### Myth 3: Always scrape off water because leaving water on the horse will prevent him from cooling down.

Water left on a sweaty horse warms up and consequently evaporates, which cools the horse but, once the water has evaporated, the horse feels hot again. Therefore, Williams says horse owners should continue applying cold water until

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the horse has cooled down because this increases the evaporation rate. "If we scrape water off, we are shortening the time water is in contact with the skin and can act as a heat sink to transfer heat from the horse to the air via evaporation."

#### **Myth 4: Leaving a wet towel on the horse aids cooling.**

"Horses' heat loss depends on sweating to release metabolic heat buildup in their muscles," says Verdegaal. "Evaporation of the sweat is part of this sweating mechanism." Leaving a wet towel on the horse to cool him down prevents evaporation because it blocks liquid sweat from evaporating. Therefore, horse owners should always avoid placing towels on horses when helping them cool down.

#### **Myth 5: All horses cool down in the same manner.**

"A one-size-fits-all approach in monitoring and cooling horses after field exercise in hot and humid conditions is inappropriate and potentially dangerous due to horses' variability in thermal response," says Verdegaal.

She and her fellow researchers monitored endurance horses' core thermal responses during field exercise using a gastrointestinal temperature pill. The scientists recorded differences between individual horses' body temperature responses during exercise and recovery.

"Our study provided reliable supporting evidence for the need for industry-wide temperature monitoring guidelines to prevent heat stress in endurance horses and racehorses when exercising in the field," Verdegaal says. She adds that all horse owners need to know their own horses' response to heat, including the temperature evolution during recovery, to safeguard equine welfare.

#### **Myth 6: Horses exercising at high intensity reach their peak core temperatures during peak exercise.**

In one of their studies, Verdegaal and her fellow researchers recorded that (on average) endurance horses reached their peak core temperature when completing 75% of a 40 km exercise leg. "The endurance horses' body temperatures returned to baseline within the mandatory 60 minutes recovery time, with an average 10-15 minutes, cooling down with pouring water buckets over the entire body with or without walking horses for a few minutes," Verdegaal says.

In contrast, trotters (on average) reached their maximum temperature during their recovery period 34 minutes post-exercise, Verdegaal says. "Several horses had body temperature values above 38.5° C (101.3° F), a heart rate already returned to 60 bpm, and 30% of the trotters still had temperatures above 39° C (102.2° F) at the end of recovery in a cool environment." Therefore, some horses might need longer cooling periods than others.

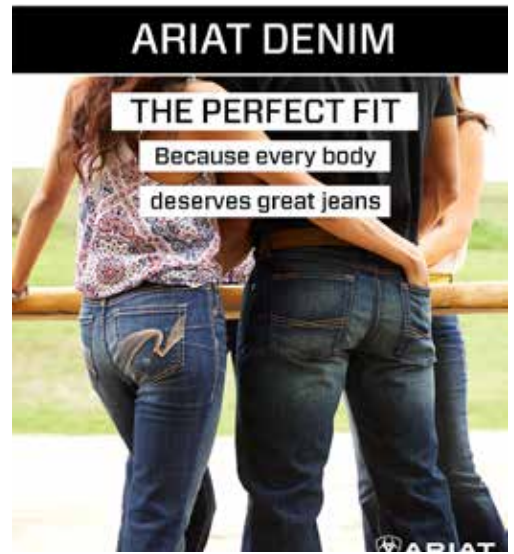
#### **TAKE-HOME MESSAGE**

Adapt your cooling practices to consider each horse's individual response to heat, his discipline, and exercise intensity. Observe your horse to understand how he handles hot and humid weather so you can quickly react if he begins to experience heat stress, and be familiar with and prepared to apply the best and most efficient cooling techniques to reduce his risk of serious heat-related illness.

*The Horse*



The advertisement features a warm, golden background with a wheat stalk on the left. At the top, the text "Harvest the Gold" is written in a large, elegant script, followed by "Triple Crown Feed Sale" in a bold, red sans-serif font. Below this, three bags of Triple Crown horse feed are displayed: "PERFORM GOLD" (brown horse), "SENIOR GOLD" (white horse), and "BALANCER GOLD" (tan horse). To the right, the Triple Crown logo is shown in a blue banner with the text "TRIPLE CROWN" and "ALWAYS BEYOND" below it. At the bottom right, the sale dates "October 1-31" are written in a large, bold, red font. Below the dates, the discounts are listed: "\$2 off/bag Senior Gold & Perform Gold" and "\$3 off/bag Balancer Gold".



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