**Need to Know**

**How stress affects a horse’s general health**

Signs of stress in a horse can be subtle, so they can be overlooked or even misinterpreted as behavioural problems. If stress is not identified and addressed, a horse’s performance and health can be affected.

**KNOW WHAT CAN CAUSE STRESS**

Many causes of stress in horses relate to a change in routine or environment. These changes can include feed, bedding, pasture and pasture mates. Even small and seemingly insignificant changes can cause stress.

<table>
<thead>
<tr>
<th>Causes of stress</th>
<th>Responses to stress</th>
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<tr>
<td>Inconsistent or infrequent feeding schedule</td>
<td>Horses can spend a significant amount of their time grazing. When a horse is at pasture, it will follow its natural inclinations. When a horse is not turned out, it should be fed at least two times a day at regular and consistent times. Feed should be of good quality and provide nutrients that horses need.</td>
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<td>Minimal exercise</td>
<td>Regular and frequent opportunities to exercise can reduce stress. However, horses should also not be overworked.</td>
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<td>Boredom</td>
<td>Boredom can cause stress and result in stable vices, such as weaving or cribbing. Opportunity for exercise and socialization can help with boredom.</td>
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<td>Isolation or loneliness</td>
<td>Horses are herd animals and get support and a sense of security from their herds. If a horse has no pasture or stall mates, it can get lonely and that loneliness can lead to stress. Horses can be stabled together and be provided with increased turnout time so they have opportunities for contact or are in sight of other equines.</td>
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<tr>
<td>Unfamiliar environments or changes and differences with familiar routines</td>
<td>Horses have a natural sense of curiosity which can be stimulated with the smells, sights and sounds of a healthy environment. However, they may get stressed if they experience too many, sudden or dramatic changes in their environments, or increased stress levels in their handlers. Unfamiliar routines that cause stress can even be caused by a visit from a farrier or veterinarian.</td>
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KNOW A HORSE’S STRESS RESPONSE

Stress can cause health issues in horses. However, stress can often be identified and controlled. Stress will trigger a “fight or flight” reaction, caused by the release of the cortisol hormone. Frequent release of cortisol can affect the horse’s digestive, reproductive, immune and cardiovascular systems, and can cause diarrhea, gastric ulcers and colic. It can also affect the horse’s behaviour.

Cortisol is a hormone that affects tissues throughout the body.

Continual stress causes regular release of cortisol. This decreases the movement of glucose from the bloodstream into muscle cells, which is meant to conserve blood glucose for functions like brain activity. However, it does decrease the availability of blood glucose for working muscles, which can decrease athletic performance.

Frequent cortisol release can also affect a horse’s immune system and affect tissue healing. This means that stressed horses are more susceptible to infection and respiratory diseases and can be slower to recover from injuries.

Signs of stress can be similar to signs a horse shows when it is ill or in pain. A veterinarian should be consulted to ensure that signs and symptoms are not caused by a medical problem.

DO YOU KNOW


Additionally, revisit and review the information on vital signs and health in the inquiry topic, Know how to care for your horse’s health on the Virtual Apprentice 2070 website at www.etsanimals.ca/va2070/nutrition.html. Revisit and review information on transportation stress in How to transport a horse in the inquiry topic, Know how to handle your horse at www.etsanimals.ca/va2070/handling.html.

There are different signs of short-term stress in horses. These can include:

- Frequent whinnying or squealing
- Shying
- Restlessness
- Tense muscles
- Carrying the head high
- Frequent and wild tail tossing
- Flared nostrils and snorting
- Shaking or trembling.

Long-term stress can increase the horse’s risk of behavioural problems, including:

- Changes in disposition or attitude
- Decrease in appetite or feeding habits, including picky eating
- Unpredictable reactions, including bucking, bolting or rearing
- Unhealthy habits in stalls, including cribbing, box walking and weaving. Horses that are cribbing will bite with their incisors on an object like a fence post or stall door, arch their neck and suck in a large amount of air. Horses that weave sway their heads from side to side and may also shift
their weight from one foreleg to another. Horses that **box walk** repeatedly pace back and forth around the stable and seem unable to stop.

Once stress has been identified as a cause of problems, it is helpful to keep a record of the triggers that cause reactions and behaviours.

Stress can often be addressed through simple changes in training or environment, including something as simple as a new stable layout. Mirrors in the stall are sometimes used to simulate social contact if horses cannot be stabled in sight of each other. Anti-weave grills can also help with weaving. Forage can be placed around the stall or in hay nets to simulate grazing and reduce box walking.

Horses should be provided with good quality feed in a consistent schedule. Regular turnout and exercise opportunities are important.

**What does the Code of Practice for the Care and Handling of Equines say about turnout, exercise and social opportunities?**

For the purpose of this Code, turnout means allowing horses “free time” (i.e., not under controlled exercise) in a dry lot, arena, pen or pasture. Turnout does not necessarily mean the horse is grazing. Exercise refers to physical activity (indoors or outdoors) and includes, but is not limited to, walking-in-hand, riding, lunging and hand grazing. Social opportunities refer to occasions when horses can interact with other horses via sight, sound and/or direct contact. Horses are highly adaptable to many weather conditions – keeping them outdoors or giving them frequent outdoor access is encouraged. There are several advantages to providing horses with turnout and social opportunities. Research shows that horses with turnout time have greater bone density than those that are strictly stalled. Horses with increased turnout and social opportunities have also shown themselves easier to train and handle. If given ample social opportunities (either turned out with other horses or group housed), horses learn training tasks more efficiently and perform fewer undesirable behaviours (e.g., biting, kicking, bucking) compared to stalled horses. For a small percentage of horses, turnout may bring a risk of injury (depending on their temperament and whether they are accustomed to turnout). These horses may need to be transitioned to turnout over a period of time (e.g., transition from a stall to a small paddock and then to pasture).

The following **requirement** is identified in the Code of Practice.

**Horses must have some form of exercise or turnout unless under stall rest for medical reasons or severe environmental conditions make this temporarily impossible.**

These **recommended practices** are also provided in the Code of Practice.

a. Turn horses out with other horses or other equine companions.

b. Allow daily exercise or turnout opportunities, ideally outdoors and with foraging opportunities.

c. Build or renovate facilities to allow ample social opportunities (e.g., group housing or stall design that allows horses to have visual or tactile contact with other equines).

d. Provide stall-bound horses with continuous access to enrichment devices (e.g., trickle feeders, nibble nets, horse toys).
A stereotypy (formerly referred to as a vice) is an abnormal behaviour that serves no apparent function and is performed in a repetitive, invariant way. Common examples include weaving (side-to-side swaying of the head, neck and forequarters); cribbing/wind-sucking (the horse grasps an object with its teeth and makes a grunting sound); and stall-walking (circular or patterned route-tracing inside the stable). Wood chewing, not usually classified as a stereotypy, can precede the development of other oral stereotypies and involves stripping and apparently ingesting wood surfaces.

Working to prevent stereotypies is generally more effective than trying to "cure" the behaviour once developed. Stereotypic behaviour is most appropriately addressed via management changes that address the underlying cause of the stereotypy. Suggestions include providing ample forage and allowing stalled horses to have visual and tactile contact with other equines. Preventing the horse from performing the stereotypy without addressing its cause may lead to further stress, frustration, and the emergence of other stereotypies. A horse may continue to perform stereotypies even after the predisposing factors have been addressed. This does not necessarily indicate their current welfare status is poor.

These recommended practices are provided in the Code of Practice.

a. Minimize the risk of stereotypies by ensuring horses have ample turnout time and ample opportunities to forage and engage in social opportunities with other equines (these factors seem to be associated with equine stereotypies).

b. For horses with stereotypies, strive to address the underlying cause of the stereotypy (rather than physically preventing horses from performing the behaviour).
Take action immediately if any horse is injured or appears ill or distressed. If you are in doubt about the horse’s health or the most effective treatment, consult a veterinarian without delay.

The following **requirement** is identified in the Code of Practice.

For sick, injured or compromised horses that are not showing improvement, horse owners or caregivers must, without delay, obtain veterinary advice on appropriate care and treatment or make arrangements for euthanasia.

The following **recommended practices** are also provided.

a. Consult a veterinarian when vital signs are abnormal for an unknown reason or when a horse shows signs of illness.

b. Post veterinary contact information, including after-hours contact, where staff will easily see the information.

c. Know in advance the route to the nearest veterinary hospital and have a plan in place for transport.

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The process for the development of Codes can be accessed through the National Farm Animal Care Council at [www.nfacc.ca/codes-of-practice](http://www.nfacc.ca/codes-of-practice).