



Being separated from friends is traumatic for some horses

TIP from the **TOP**
Pay attention to your own stress levels and stay calm around your horse.

How it affects our horses

It is important we recognise that short- and long-term stress affects each horse differently. There are several types of stress, including:

- 'Acute' stress is caused by short-term stressors. It could be something that startles or spooks the horse, such as a dog barking at them on a hack.
- The 'chronic' form is caused by long-term negative influences, such as long hours being stabled, low-grade pain over a prolonged period or a foal being terrified after suddenly being weaned from his dam.

Many horses can cope with infrequent short-term stress. However, serious problems may occur with frequent exposure to short-term stressors or continuous experiencing long-term stressors (something from which he can never escape). Over time, the build-up of the stress hormones constantly being released into the body can lead to numerous health problems. The long-term release of cortisol has been implicated in conditions such as laminitis, Cushing's disease, immunosuppression, reduced growth, recurrent airway obstruction, a range of skin conditions and allergic reactions and increases the risk of gastric ulceration and colic.

If your horse is continuously stressed it could impact on his health

Indicators of stress

- Acute (short-term) stress**
- A raised head and neck position;
 - Tail swishing;
 - Pawing at the ground;
 - Shying;
 - Whinnying
 - Increased oral behaviours (mouthing the leadrope when led, for example);
 - The four Fs: flight, fight, freeze or fidget;
 - Tension in the facial muscles;
 - Showing the white of the eye;
 - Triangulation of the upper eyelid;
 - An inability to concentrate;
- Chronic (long-term) stress**
- Changes in weight;
 - Decreased appetite;
 - Unwillingness to work;
 - Aggressive or irritable behaviour;
 - Increased submissive body language, such as licking and chewing, head lowering or yawning;
 - The appearance of stereotypies (windsucking, tongue lolling or weaving, for example);
 - Lack of sleep;
 - Increased susceptibility to infection;
 - Poor muscle development;
 - Increased fear, anxiety or spookiness;
 - Avoiding other horses.

Cribbing may be a sign of stress



Stress busters

Combat the stress in your horse's life to help him lead a happy, healthy lifestyle says equine behaviourist Justine Harrison

We all have times when we feel stressed out and unable to cope. Deadlines at work, unexpected bills, traffic jams or even being criticised can leave us feeling drained, anxious or even angry. Stress is a natural physical reaction, often in response to events that threaten or upset us. It is not a bad thing in small doses – in fact, the body's alarm system designed stress to help keep us safe.

It gets us out of bed every morning, motivates us and can help us concentrate. We all need a certain amount of stress to live well. However, prolonged stress can lead to serious physical and emotional problems like insomnia, high blood pressure, depression and gastric ulcers. Our horses can be affected in exactly the same way. Many owners think their equines have an easy life. But in fact, stress could be negatively impacting on their horse's health and wellbeing more than they realise.

What is stress?

The Oxford English Dictionary defines stress as 'a state of mental or emotional strain or tension resulting from adverse or demanding circumstances'. Put simply, it is the body's reaction to something – or someone – that causes physical or mental pressure. A thing that causes stress – a 'stressor' – can be external (in the environment, such as a predator or extreme weather) or internal (thirst or illness, for example).

When a horse senses something is dangerous or threatening, his body's warning system sets off a rapid, automatic process which is often called the 'fight or flight' response. His nervous system releases a flood of hormones into the body, including adrenaline, noradrenaline and cortisol, which prepare the body for emergency action. Blood flow decreases to non-essential parts of the body (the stomach and skin) and is directed to the muscles so the horse is ready to run. The heart beats faster, his breathing rate increases, blood pressure rises and senses become sharper. These physical changes can speed up his reaction time and increase strength and stamina. If the horse manages to escape from the stressor, or it disappears, the various hormones involved in the stress response turn off and the body calms down again.

Recognising stress

Just like humans, individual horses can be stressed by different things. For example, a foal who has experienced a sudden or traumatic weaning may become stressed if they are separated from other horses in later life, even if only for a short period of time. On the flip side, a foal that was weaned gradually and is confident about leaving other horses will not be stressed by the situation at all. Horses may react differently when stressed. If two horses are stabled for 18 hours without turnout, one may box walk and start kicking the door, while another may stand at the back of the stable quietly. Horse owners have a duty to recognise the signs of equine stress, so we can improve the horse's situation and reduce the long-term risks to his health and psychological wellbeing. It is easy to spot the more obvious signs of stress like box-walking, cribbing, aggression or teeth grinding.



Being isolated from others is one of the biggest causes of stress

Many signs are similar to those exhibited by a horse in pain, but there may also be subtle signs that can often go unnoticed:

Horses biggest stressors

Social isolation: According to neuroscientist Professor Robert Sapolsky of Stanford University, USA, one of the greatest causes of stress to social animals is social isolation.

A horse living alone, kept isolated or stabled for long periods of time, is likely to become chronically stressed and therefore highly susceptible to stress-related illnesses.

Confinement: Horses have evolved to roam anything up to 100 miles a day, so being confined in a stable and unable to move and graze is unnatural.

It is no coincidence that horses stabled for long periods may start performing stereotypic behaviours (also referred to as stable 'vices') like windsucking or weaving in an attempt to cope with the frustration of being unable to move freely.

Harsh training: Intense and/or prolonged exercise (whether in training or competition) can cause physical stress. Punishment and physical restraints also put enormous strain on horses, both mentally and physically.

Harsh or coercive training methods make horses fearful of trainers and their environment. Many have an understandable fear of whips and even the sight of one can dramatically alter a horse's behaviour.

Transport: Being travelled in a lorry or trailer can be extremely stressful for horses and several studies have shown it increases the risk of colic.

Not only are horses confined without the ability to move, many vehicles are too small, have poor ventilation and slippery floors, are badly driven and may be too hot or too cold.

Boredom: Horses are intelligent creatures that need to be mentally stimulated – they can easily become frustrated and stressed if they are bored.

Those stabled for long periods with nothing to do, are kept in a boring flat paddock or have little exercise can become stressed and develop behavioural issues.

Unpredictability: As prey animals it is important for horses to feel safe, so if their environment changes constantly they may never be able to totally relax.

Moving yards, new horses coming and going, unexpected noise, changes to feeding times, different handlers and inconsistent training techniques can leave horses anxious as to what may happen next.

Stressed handlers or other horses: Horses can be adversely affected by the emotional state of other equines and also the people around them.

If one horse in a group is overly tense or aggressive, it can lead to problems within the herd and cause tension so the other members of the group may be unable to relax.

Incorrect feeding: Horses have evolved to trickle feed – grazing for up to 18 hours a day, moving and eating.

Many people believe three large grain meals a day and one small haynet overnight is a better feeding regime, when in fact it can leave horses hungry, stressed and at risk of developing gastric ulcers.

...and relax

To avoid equine stress we need to understand the natural needs and behaviour of horses and manage them accordingly.

Friends, forage and freedom: By far the best way to relax your horse is to give him as much access as possible to turnout, equine company in a friendly stable group and ad-lib access to grazing or good quality forage.

For a horse to be in the company of others is a hardwired need and having a calm horse friend present for travelling, schooling and hacking may mean your horse will relax and learn tasks quicker.

Sympathetic training: Ditch the gadgets and be calm and consistent when handling and training your horse. Punishing him when he does the wrong thing, or forcing him to do something he's worried about, will only reinforce his fears.

Using positive reinforcement can help reduce equine stress and make life less stressful for the rider or trainer, too. Avoid overworking your horse and vary his work so he doesn't get bored endlessly repeating the same exercises.

Enrich his environment: Research has found that environmental enrichment can help treat a variety of behavioural problems including excessive fear responses, whereas a lack of mental stimulation may actually increase fear behaviours and impair cognitive development.

You can enrich your horse's environment by providing him safe toys to play with – see the September issue of *Horse* for more ideas.

Ensure he has access to shelter so he can regulate his temperature by choosing to be in or out.

Travel less and take a horse friend with you: If you are taking your horse to events or lessons



Travel your horse with care

frequently, reduce the number of trips you make and take a calm horse friend along if you can.

Ensure your horse has enough room and the vehicle is well ventilated. Drive carefully and don't feel pressured – go slowly around corners and brake gently.

A consistent routine Maintain a consistent daily routine – feed and turnout all the horses on the yard at the same time whenever possible. Keep horses in the same groups and have regular handlers for each one.

A good night's sleep It is important horses feel safe enough to rest and sleep well. If he feels threatened by a field mate, turn him out with friendly company. If stabled at night make sure he has a roomy stable and a deep bed to encourage him to lie down. Turn off lights and avoid disturbing the horse.

Good nutrition Access to grazing is ideal, but you can also feed good quality forage.

If your horse is in very hard work and you are feeding grain – try feeding smaller, lower energy feeds at least four times a day at regular intervals to try and mimic the natural feeding behaviour. ■

How stress affects learning and memory

A French study considered how stress affects 'working memory' – the short-term memory a horse uses to learn to associate commands with actions.

Thirty Welsh pony mares were tested to see if they could remember which of two buckets contained a food reward.

They watched food pellets being dropped into one of two buckets, randomly. Each horse had to wait up to 20 seconds before being able to approach the bucket and retrieve the food.

The horses were tested in a quiet, familiar place, and then in an environment with a number of stressors – including tarpaulins, balloons, the sound of bells ringing and a barking dog.

Researchers found that in the familiar environment, the horses had an average working memory of at least 20 seconds – they could find the food reward after a 20 second delay. In the stressful environment they rarely managed longer than 12 seconds.

The horses had a tendency to pay less attention to the food being put into the buckets in the stressful environment. So, potentially their ability to concentrate and their interest in food was reduced.

There were also differences from one horse to another, so it is important for us to remember all horses are individual.

A breed apart

Cold-blooded breeds like cobs and Shires are often considered to be more relaxed than Arabs or Thoroughbreds.

However, studies have shown that the levels of the stress hormone cortisol is the same in cold-bloods as it is in hot-bloods in stressful situations – the former just behave differently.

These breeds seem to be more likely to hide their stress responses and may 'freeze' rather than run about or fidget.

Sadly, as a result of this they are often thought to be 'stubborn' and 'difficult' when in fact they are simply too frightened to move.



Relaxed and sensible – or do cobs hide their reaction to stress



Happy in the herd – offer your horse as natural a lifestyle as possible