Pain barrier

Would you be able to tell if your horse is in pain? Equine behaviourist **Justine Harrison** considers what the signs of suffering are and how ignoring them could lead to behaviour issues

If a horse has a major injury it is easy to see signs of discomfort immediately – most riders and owners can identify a lame horse. But it is much harder to tell if a horse has internal, or low-level discomfort.

Pain is one of the most common causes of behavioural problems. Recognising when a horse is suffering is vital for his health and quality of life.

By observing your horse on a daily basis you can learn what is normal for him. This will enable you to spot any subtle behavioural changes, and alert you early to potential problems.

Prey species tend to conceal their pain more than predatory animals such as dogs, who generally show more obvious signs.

Animals further down the food chain can't afford to let potential predators know they are injured or unwell. It would draw attention to them, and they could end up as someone's lunch.

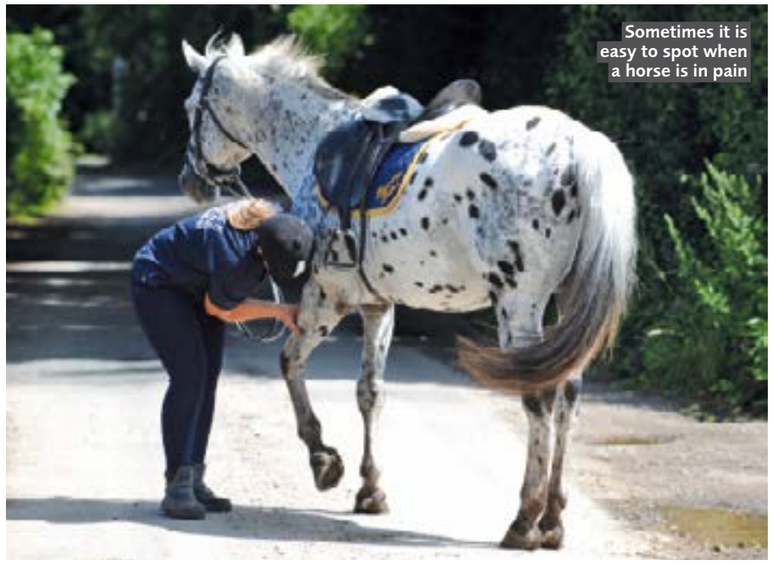
Therefore, horses have evolved to behave as normally as possible when they are hurt and they can hide pain very well. This can make recognising when a horse is uncomfortable difficult. It also means painful conditions often go undetected.

Of course, horses can't tell us verbally if they are uncomfortable, but changes in behaviour and body language can indicate they are in pain.

Horses in pain may display many forms of 'undesirable' behaviour – which can then be misunderstood as the horse being stubborn, bad mannered or lazy, for example, and then punished unnecessarily.

Pain-related behaviours may be dismissed, such as the horse being 'bridle lame' (lame when ridden) or 'cold-backed' (reactive when saddled up or mounted).

Horses behaving in this way are often found to have physical problems when examined by a vet. But the above terms are so well used in the horse world they seem to have become accepted as something that can be 'ridden through'.



Sometimes it is easy to spot when a horse is in pain

"It is likely horses' skin is more sensitive than ours, and they may also feel pain to a greater degree than we do"

What is pain?

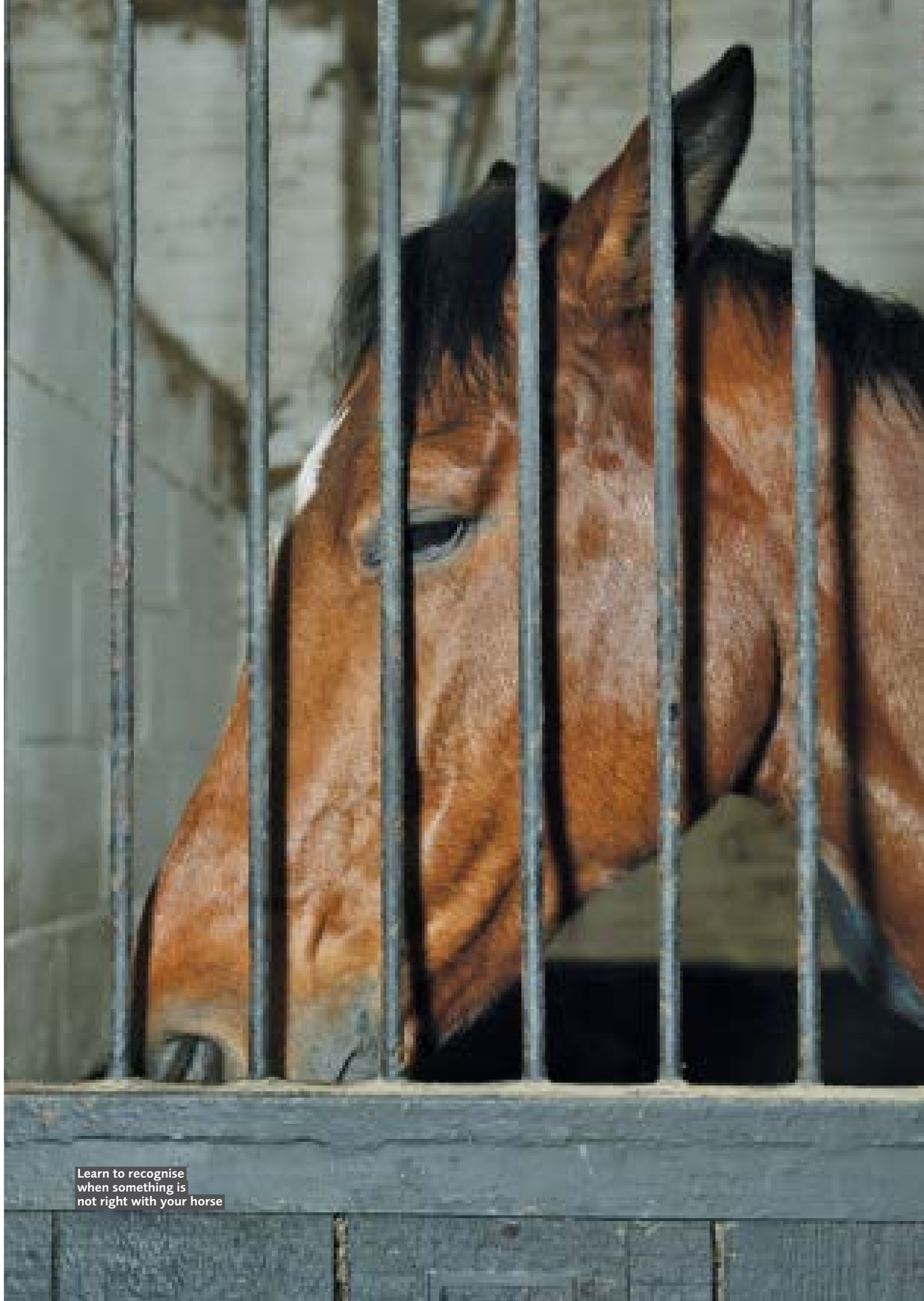
Pain can be defined as an unpleasant feeling caused by disease, injury or something that hurts the body.

It is a survival mechanism that warns the animal – or human – something is wrong. Feelings range from mild and occasional, to severe and constant.

Different stimuli such as heat or cold, infection, knocking into a fence, or even an insect bite can trigger pain receptors in the body that inform the horse to act, in order to protect himself. This is usually by avoiding the situation.

The equine nervous system is similar to that of a human, so we can extrapolate horses feel pain in much the same way as we do. However, recent research has revealed equines may feel more pain.

Veterinary pathologist Dr Lydia Tong at Sydney University carried out a study that looked at the differences between horse and human skin.



Learn to recognise when something is not right with your horse

She found the epidermis (the outer layer of the skin) is thinner in horses and they have a higher density of pain-sensing nerve fibres than we do.

This means the horse has fewer skin cells lying between any potential source of pain and the nerve endings. It is therefore likely their skin is more sensitive than ours, and they may also feel pain to a greater degree than we do.

How pain affects behaviour

Pain will motivate a horse to move away from damaging situations and to avoid similar experiences in the future.

If your horse is hurt when a vet gives him an injection, for example, or a farrier pulls his leg too high, he may try to escape the situation (or fight) and then do his best to avoid it the next time.

Pain also warns a horse to limit his movement to protect an injured body part while it heals.

Often, we see behavioural issues occurring if we ask our horses to do something they simply can't manage physically.

For example, a horse in the early stages of laminitis may be reluctant to walk, or a horse being asked to leg-yield with undiagnosed kissing spines could nap towards the arena gate.

If a horse feels he cannot escape the source of pain, he may go into a state called 'learned helplessness'. This is where he appears to give up and not react at all.

This could mean the horse becomes withdrawn and quiet, or doesn't react when a painful area is touched. Unfortunately, this gives the false impression he is not in pain.

Types of pain

Pain is classified as either acute or chronic. Both forms can be mild, moderate or severe.

Acute pain is often sudden and usually the result of a clearly defined cause. It could be experienced from a burn, injury or injection.

Monitor your horse

You know your horse better than anyone else. Observe him whenever you can and learn what his 'normal' behaviour is and you will be able to spot when something is amiss as early as possible.

Keep a diary as some conditions can be dependent on the season or certain times of the year, so it is useful to log when a behaviour occurs.

Check your horse's temperature, heart rate and breathing regularly to establish his resting or normal values.

Knowing your horse's baseline information will not only help you detect any potential health problems early, it could also help your vet judge the severity of the problem.

Observe your horse and learn his normal behavour

Run your hands over your horse every day to check for any cuts, lumps, bumps or areas of heat.

"Horses have evolved to behave as normally as possible when they are hurt. They can hide pain very well"

This type of pain should disappear with the healing of its underlying cause. Signs of acute pain could be an increase in heart rate, respiration and blood pressure. He may sweat up, become agitated or anxious and try to avoid a situation.

Unrelieved acute pain can lead to chronic pain, which persists long term. It might have started from an initial injury or infection or there could be an ongoing condition causing the pain, such as arthritis.

Long-term discomfort can seriously affect a horse physically and mentally – and the whole body may be affected, not just the area of localised pain.

Signs can include tense muscles, stiffness, lethargy, a change in appetite, general grouchiness or depression.

It is important to consider that horses are all individual and may respond differently to pain.

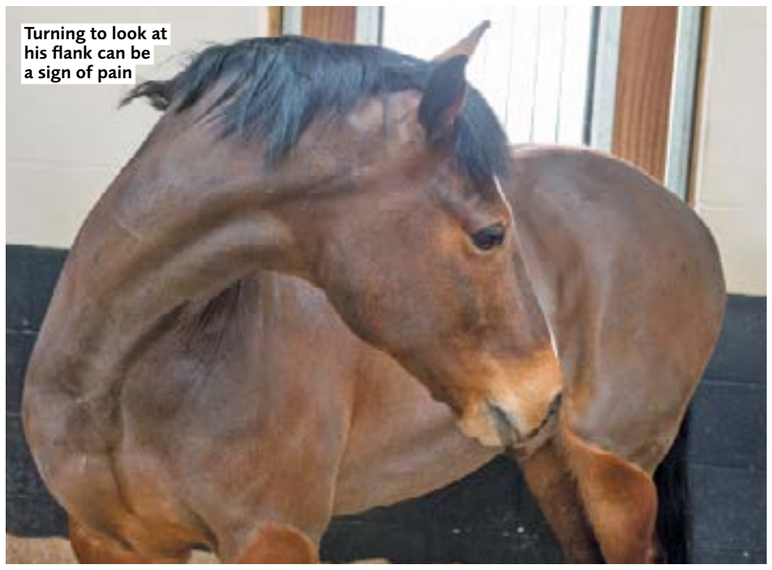
How horses react to pain can also be dependent on the environment they are in, their mood, whether they are hungry or what activity they are doing.

For example, a horse jumping a cross-country round, when adrenalin is pumping through his body, may not appear to notice an injury until he has finished.

Filming a horse 24/7 can be a useful way to assess his behaviour and look for signs of pain.

He may only show signs of discomfort at night when there is no-one around. On a busy yard, a horse could be distracted during the day and appear normal.

Or, he may show behavioural signs of pain only when he is asked to work, and seem more comfortable in his stable or field.



Turning to look at his flank can be a sign of pain

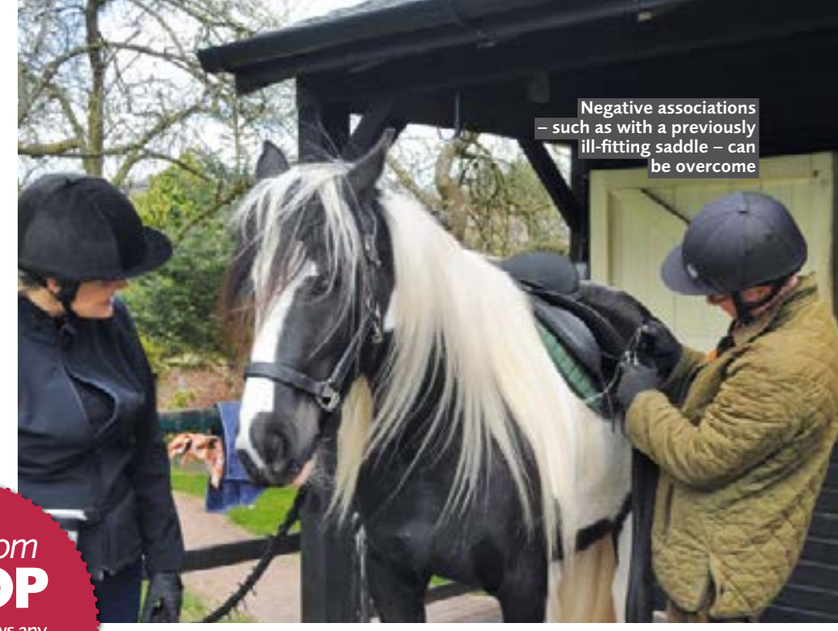
Behavioural signs

Any change in behaviour may be the first indication that a horse is experiencing pain.

If this occurs we need to take into account not only what the horse does, but when, how, where and how often he demonstrates or performs a certain behaviour.

Behaviour should always be considered in the context in which it occurs, not in isolation. This is why it is so useful to know what is normal for your horse, so you can tell if he is doing something out of character.

Behavioural problems are often due to pain



Negative associations – such as with a previously ill-fitting saddle – can be overcome

TIP *from the* **TOP**

If your horse shows any abnormal changes in his behaviour, contact a vet immediately.

Here are some signs that could mean a horse is in pain:-

- Any form of aggression or grouchy behaviour;
- Repeatedly turning the head back towards his flanks/hindquarters;
- Rubbing or itching any part of his body excessively;
- Repeatedly yawning, sighing or performing the Flehmen response (curling the upper lip);
- Headshaking or head bobbing;
- Biting or nipping any part of his own body;
- Teeth grinding;
- Grunting or groaning;
- Trembling or muscle twitching;
- Tail swishing, holding the tail to one side or raising the tail unusually;
- Lifting a leg, striking or kicking out (such as towards the stomach).
- Excessive stamping or pawing;
- An inability to stand squarely or shifting weight on any, or all four feet;
- Adopting an abnormal position when resting, urinating, or defecating;
- Sitting upright like a dog after lying or rolling;
- Frequently lying down and getting up or rolling;
- Leaning against a wall or fence;
- Never rolling or lying down;
- Staying away from other horses;
- Hyperactivity – being unusually jumpy or spooky;
- Restlessness or agitation;
- Any change in appetite – not eating, bolting food or quidding;
- A staring, dazed or dull look in the eyes;
- Becoming withdrawn or listless.

The following signs can be shown in the ridden horse:

- Nipping when the girth is tightened;
- Reluctance to be tacked up, enter the arena or go forward;
- Napping, freezing or backing up;
- Spinning, rearing or bucking;
- Stiffness on one or both reins;
- Tilting the head to one side;
- Tail swishing;
- Unusual oral behaviours, such as teeth grinding, opening the mouth, crossing the jaw or sticking the tongue out.

Forming negative associations

Most pain disappears once the cause is removed. However, the horse will continue to associate pain with whatever caused it in the first place.

That could be an item of tack like a saddle, or an environment where the pain occurred, for example in the arena or on a particular bridleway.

They will also remember who was present, such as the rider or handler.

In the future he may try to avoid those 'painful' stimuli. For example, the horse will move away when you go to put the saddle on, or even try to bite you.

The good news is, it is possible for a horse to relearn those things or situations are no longer dangerous. However, it can take time and patience to achieve this. ■

The equine pain face

A study suggests horses have specific facial expressions when they are in pain.

Researchers from Denmark and Sweden studied the body language of horses who were in discomfort. They found there is an 'equine pain face' that can be recognised with clear changes visible in the appearance of the ears, eyes, nostrils and muzzle, as well as muscle tension across the face.

Karina Bech Gleerup, a veterinarian and lecturer from the University of Copenhagen, who led the study, says we should all try to learn to read our horse's expressions.

"I hope owners who learn to recognise the equine pain face will be able to identify pain in their horses earlier than they do currently," she says.

The face of the horse in pain has low and/or asymmetrical ears, an angled appearance of the eyes, a withdrawn and/or tense stare, nostrils flared to the side, and tension of the lips, chin and certain facial muscles.

Relaxed and attentive – a healthy, happy and pain-free horse.

The equine pain face with asymmetrical ears – the horse has a withdrawn look

The pain face with ears back. The eye is angled and the nostrils flared.

'An Equine Pain Face' by Karina B Gleerup, Björn Forkman, Casper Lindegaard and Pia Andersen is available online: onlinelibrary.wiley.com/doi/10.1111/vaa.12212/epdf. Illustrations by Andreas Klintbjer.