

TRAIL

By Christa Petrillo

Control is essential when on a trail ride. Christa's trail clinics are designed to teach both the rider and the horse techniques that will lead to control and supreme performance and that will provide a safe and enjoyable ride in the end.

Following is a question and answer interview with Christa regarding trail riding and training.

Q: What are some of the issues that riders encounter on the trail that you can help them with specifically?

A: "One of the most common questions I hear is "My horse spooks. What should I do in that situation?"

The answer goes to several foundational issues. First we need to understand equine behavior to intellectually respond appropriately; separate our emotions, which is often fear, and deal with the situation rationally and confidently. Horses have a fight or flight instinct meaning they will either take a stand and fight when they are presented with a situation they determine is threatening or they will take flight, or run

away. In a herd situation they will look to the lead horse for a cue. On a trail the horse is looking to the herd— other horses, other riders and to you. Often horses will pick up on something they consider threatening before you do because they are wired with keener senses than we are. They often respond and then we respond to their response and it sets off a chain reaction. If we can condition our response to a spooking situation to be one thing and can condition the horse to learn to control their emotions we can deal with potentially threatening situations without the fear.



It is important to understand how the senses and equine behavior can correlate with how a horse will respond on the trail. There is a lot we can do in preparing them ahead of time by teaching techniques and cues that we can then apply when encountered with a "situation" on the trail. **The equine eye correlates directly to equine behavior.** It is beneficial to both the horse and the handler when the strengths and weaknesses of the horse's vision are considered. We ask horses to perform tasks that are not natural to them. It seems only fair that we develop an understanding as to what and how horses see, so that we can better anticipate horses' responses to situations and thereby help them to overcome their fear or uncertainty about a situation in a fair manner.

Highly developed senses of sight, smell and hearing in horses detect danger and signal the "escape" or "flight" behavior in horses. Horses do not have antlers; they do not have cloven hoofs or horns with which to defend themselves against prey. They do have the ability to flee. It is an innate instinct. When a horse is startled or feels threatened their instinct is to take flight.



Somewhat like a camera's wide-angle lens, the horse's horizontally elongated, roughly rectangular pupil, gives the horse the ability to see a very broad range of view.

Horses possess monocular vision and binocular vision. Monocular vision is where each eye is used separately, making it possible to see to the front, the side and to the rear; giving them a total of almost 280 degrees of monocular vision alone. This monocular wide range of view has two blind spots; directly in front of the horse's face to about 3 feet out in front, and right behind the head to an area that extends over the back and behind the tail.

Along with monocular vision, horses also see with binocular vision (as humans do), which is the ability to see using both eyes at the same time giving them a three dimensional picture of about 75 to 95 degrees range of view. A horse will raise or lower its head to increase its binocular vision. In the instance of a snake- a horse will lower their head and somewhat arch their neck to get a better view of the object or in the case of a rider jumping the horse, the rider will allow the horse to raise their head a few strides before the jump to better assess it. While having the ability to see practically in 360 degrees is a benefit there is a tradeoff for this ability; that being, their binocular depth perception is somewhat more limited. Sometimes a brief visual shift takes place as the horse switches from monocular to binocular vision, which can trigger an unexplained "spooking" of the horse. Horses are well endowed with photoreceptors that enable them to see in varying intensities of light well, including the ability to have excellent night vision. In addition to being well endowed with photoreceptors for light variation vision, the horse has one of the largest eyes among land mammals, which allow even more light to enter the eye. Horizontal elongation of the cornea and pupil further enhance the ability for light to enter the eye. While this is all beneficial on a cloudy day, they are less able to adjust to sudden changes of light such as walking into a dark barn or getting into a trailer or visa versa, walking out. Momentarily these can appear to be dark holes ready to swallow them up or blinding situations as the case may be and most certainly become their undoing! This is why a horse might stop momentarily asking for a few more seconds to adjust to the light change.



Unsure of the creek's footing the horse lowers her head, tilts it to the side slightly and arches her neck to get a better look at it.



In this photo the horse has one eye on the trainer and one eye on the person taking the photo. The ears are a good indicator of where the horse is looking.

Usually a horse will be alerted to a predator approaching through detection of motion. The horse's retina is rich in motion detecting cells known as rods. Although a horse has acute awareness of motion in the periphery of his vision, he is unable to focus on details there. Spinning and facing the object is often the result of a sudden or odd movement.

All these benefits of the eye work together for protecting the horse from its prey. Understanding better how the eye correlates to equine behavior aids us in coping with that behavior.

Q: Knowing sight plays a role in how horses respond to situations, then hearing must also play a role then, right?

A: Yes, a horse's hearing structures are similar to other mammals, except that horse's ears are the most mobile of any domestic animal. A horse ear is able to twist nearly 180 degrees from front to back as they focus on and gather sounds.

A Horse can hear higher frequencies (pitches) than a human. They can also hear lower frequencies than humans and hear yet even lower through their hooves and teeth when grazing. Frequencies are measured in hertz. One hertz is equal to one vibration per second.

Horses can hear sounds from greater distances than humans, even several miles away, depending on the wind. It is generally thought that they can hear and feel lower volume tones than humans and that they are more sensitive to loud noises than humans.

Horses have survived because they developed keen hearing so it is no wonder they are always listening. Loud noises with high decibel ratings, such as gunfire, vehicle backfire, and diesel truck engine brakes, can cause any horse to startle or spook. Horses can become desensitized to loud noises such as horses used in the military and police forces.

When traveling, horses can become very anxious from constant truck, trailer, and road noise- the rattling of a stall divider and doors, the sound of the engine, and other traffic noise. The more a horse travels the more he becomes accustomed to the noise.

Horses that avoid clipper by their ears have good reason to; the noise might sound like a lot of buzzing insects coming to attack them. Wind is noisy. It also brings along more sounds for the horse to process and it masks other sounds. A horse might normally hear sounds from a quarter of a mile away. With a 15 mile per hour wind, the horse might hear sounds from one half a mile or more up-wind and very little from down wind. It is no wonder horses are uneasy in the wind; they hear things that are a ways away and they can't hear what is down wind, not to mention things move more in the wind causing the horse to have to process more. I have found that horses tend to not only get spooky in wind but cranky. Speaking of the equine eye...

First Aid for Eye Injuries and Infections

If your horse has an eye injury or infection:

- Clean up the area very gently with a saline solution. If you don't have one on hand (like the saline solution for contact lens wearers) you can make some yourself. The ratio is about 1/4 tsp of table salt to a cup of lukewarm water. It should taste like tears.
- Put a fly mask on the horse to keep flies off the eye area.
- If possible keep your horse in subdued light such as his stall until the veterinarian arrives.

Herbs

Eyebright (*euphrasia officinalis*)

Part used: Aerial parts

Collection: Gather whole plant in bloom during late summer or autumn

Actions: Astringent, anti-catarrhal, anti-inflammatory

Use: Eyebright is beneficial to any mucus membranes and is best known for use in eye conditions such as inflammation, weeping, stinging, ulceration, and conjunctivitis. Eyebright may be used both internally or can be made into a tea and used as an eye-wash or compress, and is excellent when combined with distilled witch hazel.

Dose: For an eye-wash brew 30 grams of the herb in ½ litre/1 pint of boiling water. Internally give 20-30 grams of the dried herb daily.

- Eyebright may be found at most health food stores or in the health food department of your grocery store. I also sell herbs. If you are interested in ordering herbs please email me and I will email you a list or you may call 707-246-4663 to place an order.

Horses link certain sounds to specific activities such as; feeding time, a trailer coming down the road, the sound of a specific vehicle, sound of a familiar voice and anything that is repetitive on a daily basis. My horses got accustomed to my keys first thing in the

morning. The second they heard my keys they would nicker to me. Same as a familiar voice or whistle a horse may nicker when they recognize it. Horses have incredible hearing. By paying attention to our horses when we are around them can help us anticipate what our horse may do next or may give us a warning to something to come.

Q: You mentioned horses have a flight/fight instinct and that there are techniques that can be applied to overcome this. Can you address this and how it plays a role in trail control?

A: The flight/fight instinct is considered a typical equine behavior response to something that makes the horse fearful. It is when a horse goes into basic survival mode. There are cues and techniques that will help the horse to overcome and control their emotions and natural tendency to take flight. Once you have established ground control via the round penning technique, bridle work, and the W.E.S.N. Lesson, you can move into controlling your horse from the saddle. Serpentine, the calm down cue from the saddle, disengaging the hind quarters, hip-shoulder-shoulder, diagonals and the spook in place exercise are all designed to give you maximum control of your horse. By applying these techniques your horse will learn to listen to you and will concentrate on you— thereby transferring their instinct of flight in a given situation to that of controlling their emotions. When applied, the horse is having to work and concentrate on what you are asking instead of what upset them. You are basically giving them something else to think about. Eventually they learn to control their emotions; they learn if they don't, that they will have to work. They learn to trust you and will look to you for a response to circumstances that arise. (all techniques mentioned are John Lyons techniques)