



WHAT IS COOPERATIVE VETERINARY CARE?

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PHOTO BY DAVID TAYLOR

While it may seem counterintuitive, teaching a horse they have choice and control during aversive veterinary procedures can yield positive results.

Trailblazers such as Dr. Marty Becker and the late Dr. Sophia Yin introduced the veterinary community to low-stress handling practices in hospital. Such approaches reduce fear and stress felt by patients, enabling veterinary staff to safely perform procedures. Building on Dr. Yin and Dr. Becker's great work, protocols for cooperative veterinary care—wherein animals willingly participate in their own treatment—are becoming more commonplace in small animal veterinary clinics, thanks to a growing number of proponents.

Benefits of this patient-centered treatment approach include increased staff safety, reduced stress for animals and people, increased accuracy of diagnostic test results, and decreased iatrogenic behavioral injury. Such benefits can also be enjoyed by the equine veterinary community.

“THE CONDITIONED EMOTIONAL RESPONSES OF HORSES THAT HAVE LEARNED TO FEAR HANDLING AND TREATMENT CAN BE CHANGED.”

CHOICE AND CONTROL FOR COOPERATION

While it may seem counter-intuitive, giving an animal choice and control during what may be an aversive procedure can result in increased, even willing, compliance. Hard evidence of this can be seen in readily available YouTube videos of zoo veterinarians safely drawing blood from lions, doing dental exams on open-mouthed and unrestrained hyenas, or performing cardiac ultrasounds on gorillas.

The training approaches used to teach potentially dangerous apex predators and powerful great apes can also be used to teach horses to participate in their care. For naïve horses, who have not yet experienced fear conditioning about specific stimuli, shaping,

desensitization, and positive reinforcement can be utilized to quickly teach a range of cooperative care procedures. Shaping is the process of teaching a new behaviour, such as touching a target with the nose while a jugular venipuncture occurs, by progressively reinforcing small steps towards the end goal. Systematic desensitization is exposure to a stimulus in a gradual manner that does not trigger fear. Positive reinforcement is the addition of a stimulus, usually morsels of highly palatable food, to increase the likelihood a behaviour is repeated.

While engaging a horse in cooperative veterinary care is decidedly easier with the naïve horse than it is with a horse who has previously learned to fear handling and treatment, the conditioned emotional responses of horses that have learned to fear handling and treatment can be changed. For these horses, systematic desensitization and counter-conditioning should be utilized to change the horse's response

to the stimulus, before teaching the horse how to behave instead when faced with the aversive procedure. Counter-conditioning is changing an animal's involuntary emotional or physiological response to a stimulus, replacing it with a new response to the same stimulus. For example, counter-conditioning can be used to change the response of a horse from fear at the appearance of the farrier to pleasure. Once the emotional response has been changed, the horse can then be taught to perform a new behaviour more compatible with being shod, such as lifting and holding a hoof when cued, using shaping and positive reinforcement.

“AS SOON AS THE HORSE SHOWS SIGNS OF ATTENTION WITH TENSION, THE FOCUS SHOULD SWITCH BACK TO REDUCING AROUSAL, UTILIZING LOW-STRESS HANDLING PRACTICES.”

APPLICATIONS

While true medical emergencies temporarily require that the horse-veterinary staff relationship becomes one more of procedure-centered treatment, patient-centered treatment approaches can easily be incorporated into daily practice. Horses can be readily taught to cooperate and participate in their own treatment, such as ocular exams/treatment, stationing on the wooden blocks for hoof radiographs, or standing calmly for jugular venipuncture.

In addition to facilitating daily treatment, such training provides valuable cognitive enrichment for in-hospital horses who may be struggling with confinement. It also facilitates easier follow-up care for clients, once the patient has been transferred back home.

All training should occur when the horse is showing signs of attention without tension: the horse shows relaxed body language, is engaged with handlers and the environment, and is not showing signs of escape or avoidance behaviours. As soon as the horse shows signs of attention with tension, the focus should switch back to reducing arousal, utilizing low-stress handling practices.

INSTILLING EYE MEDS

Teaching a naïve horse to willingly accept eye medications doesn't take long, and can help ensure that the owner is successful in continuing any additional treatment at home. For the horse who has already inadvertently been taught that receiving eye medications is an unpleasant experience, the process is slightly different, and the use of counter-conditioning to change conditioned emotional responses should occur prior to retraining.

WHAT YOU NEED

• a horse that is, at minimum, halter-broke, has been desensitized to facial touches, and that will maintain a relaxed head and neck posture/height when the head is touched

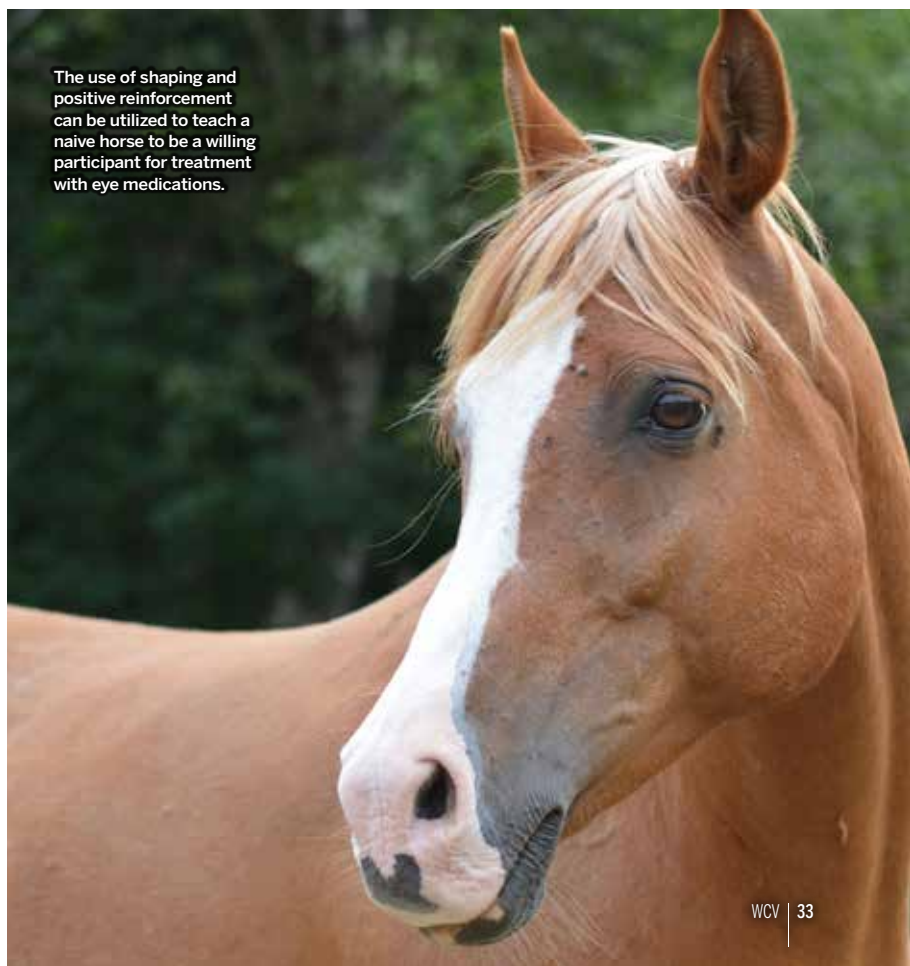
- small (~1-cm) pieces of high value treats, e.g., carrots, apple, mints, 'Stud Muffin' type cookies
- an experienced handler, practicing minimal restraint (e.g., maintaining a 'smile' in the leadrope) when the horse is standing calmly, utilizing negative reinforcement, 'pressure and release', to reposition the horse as needed)

The purpose is to instill eye ointment/drops into eye. The end goal is that each step of the process predicts treats for the horse. The horse stands calmly when the affected eye is held open with one hand by the person medicating the horse, while the other hand applies the eye medication.

STEPS

1. Remove lid from medication tube/bottle
2. Put 'karate chop' side of non-dominant hand on horse's face, about 6 cm from tear duct
3. Put index finger on upper lid above lashes
4. With light pressure, push upper eyelid up under bony orbit of eye
5. Place thumb of same hand just below lower lid's lashes, and roll lid down, exposing conjunctival shelf
6. Using dominant hand, bring medication tube up to eye
7. Dispense prescribed volume of medication onto conjunctival shelf

Begin at the first step. Upon successful completion of a step, immediately say "Yes" and offer the horse a treat. Repeat each step two to five times, or until the horse readily accepts the step without any signs of evasion (elevating the head, avoiding touch, etc..) before proceeding to the next step. If the horse displays signs of evasion, go back a step or two, and work there before moving forward again or make the step smaller. For example, step 2: bring 'karate chop' side of hand to within 15 cm of horse's face; step 3: bring 'karate chop' side of hand to within 6 cm of horse's face.



The use of shaping and positive reinforcement can be utilized to teach a naïve horse to be a willing participant for treatment with eye medications.



Jugular venipuncture or IM injections need not be an unpleasant experience for horses.

TEACHING VOLUNTARY JUGULAR VENIPUNCTURE

As with instilling eye medications, teaching a naïve horse to willingly accept jugular venipuncture takes a fraction of the time required to change the conditioned emotional response of the horse who has experienced particularly aversive venipuncture.

WHAT YOU NEED

- a horse that is, at minimum, halter-broke, that has been desensitized to neck touches, that will stand calmly when handled
- small (~1-cm) pieces of high value treats
- an experienced handler, practicing minimal restraint as above

The purpose is jugular venipuncture. The end goal is that each step of the process predicts treats for the horse. The horse stand calmly when the jugular is occluded, the vein is punctured, and blood is withdrawn or medication is injected.

STEPS

1. Prepare capped needle and syringe for venipuncture, place in dominant hand
2. Stand facing horse's neck
3. Stroke neck with non-dominant hand
4. Occlude jugular with non-dominant hand
5. Bring dominant hand with capped needle towards jugular
6. Lightly pinch jugular
7. Remove hands, uncap needle; repeat steps 1 to 5
8. Puncture jugular and proceed with blood draw or medication administration

Begin at the first step. Upon successful completion of a step, immediately say “Yes” and offer the horse a treat. Repeat each step two to five times, or until the horse readily accepts the step without any signs of evasion (elevating the head, avoiding touch, etc.) before proceeding to the next step. If the horse displays signs of evasion, go back a step or two, and work there before moving forward again or make the step smaller. For example, step 4: lightly touch the jugular with thumb; step 5: occlude jugular for one second; step 6: occlude jugular for three seconds.

Practicing low-stress handling and implementing cooperative veterinary care in-clinic benefits both veterinary staff and equine patients. Reduced risk of injury; more accurate diagnostics; increased patient compliance; faster, more efficient treatment times; and satisfied horse owners are just some of the many benefits that result when practitioners utilize cooperative veterinary care, and a patient-centered treatment approach to horses. [WCV](#)