

Operational Guide

Horse Care and Abuse Investigation



AMERICAN HUMANE

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Introduction

Traditionally, people used horses as either working animals or high-dollar athletes. They most often kept them on rural ranches, farms, and other horse operations. The growing popularity of horses as wonderful companion animals, however, means increasing numbers of them now live in more typical American households. It's estimated that 5.1 million horses are kept as family pets¹ in 4.2 million households in the United States.² (This number doesn't include the millions of commercial horses bred for racing and other operations.)

At its best, the relationship between people and horses celebrates a unique bond. Indeed, horses historically played an integral role in the development of modern society. From plowing fields and ferrying mail, to building rail systems and hauling much-needed supplies, the horse remained a true ally.

While modern machinery replaced many traditional uses of the horse, the human-horse relationship continues in different ways. These days, equine-assisted therapy programs give individuals with disabilities a way to experience the wonders of horses. This therapy also improves muscle tone, balance, posture, coordination, motor development, and emotional well-being.³ Trainers now teach miniature horses to serve as guide animals for the blind or hearing impaired. A variety of show opportunities for professional, amateur, and young riders allow others to

experience horses' unique strengths in a positive, supportive environment. Examples include western, English, jumping, hunt seat, halter, pleasure, side-saddle, with a carriage or cart, three-gaited, or five-gaited events.

This popular demand for horses also creates many problems. Despite their great size, horses can be very fragile animals, susceptible to a wide variety of serious illnesses and injuries. Many new horse owners have very little understanding of a horse's care, needs, and limitations. They do not know what is right, what is wrong, or what is cruel. As a result, horses often suffer many abuses due to carelessness and ignorance. Most of these unintentional abuses could be avoided if people were better informed.

With horses' increased presence in the average American home, animal care and control agencies increasingly find themselves caring for a growing population of horses.

Education remains the greatest means of abuse prevention. The more people know about horses, understand their nature, necessities, limitations, capabilities, and proper use, the less horse abuse we will see.

Most people want to give their horse the best of treatment, but they simply do not know how. At a minimum, animal care professionals should provide the public with information on basic horse care and recognize the most visible signs of abuse or neglect. That is the goal of this guide.

¹ U.S. Pet Ownership & Demographics Sourcebook, American Veterinary Medical Association, 2002.

² APPMA's 2005/2006 National Pet Owners Survey.

³ North American Riding for the Handicapped Association, Inc.

Note: While ponies, burros, and mules are not specifically referenced, instruction given here is equally applicable to all three. Quite similar physiologically, they experience many of the same problems. Burros and mules, however, face an added

problem — people often believe that they are tougher than a horse and can endure more. Sometimes, the result is that they receive less care than a horse. For simplicity sake, this guide references all three as “horse.”

Terminology

Animal care professionals need to be familiar with a variety of terms specific to the world of horses.

Bale - A measurement of hay, equal to 10 “flakes”

Brood Mare - Mare used for breeding

Colt - A male horse under four years

Dam - Mother of a horse

Farrier - A blacksmith who shoes horses

Filly - A female horse under four years

Flake - One tenth of a bale of hay

Foal - A newborn horse, still at mother’s side

Gelding - A male horse that has been castrated

Gut sounds - The noises that can be heard from a horse’s stomach

Hand(s) - Common way to measure horses (One hand is four inches, so a horse that measures 15 hands is 60 inches tall.)

Mare - A female horse over four years

Sire - Father of a horse

Sound - Term used to describe a healthy horse

Stallion/Stud - A male horse that has not been castrated

Unsound - A horse with health problems or lameness

Yearling - A horse that is one year old

Vital Signs

American Humane thanks the Mane Points, a horse resource center www.manepoints.com, and Terry Paik, DVM, for contributing to this section.

Knowing what a healthy horse looks like is the first step in identifying signs of horse abuse. Temperature, pulse, and respiration are the most basic indicators of a horse's medical condition. Evaluating these three vital signs provides a good idea of a horse's current health status.

Body Temperature

Take a horse's temperature with a rectal thermometer. Normal body temperature for a horse runs 99.0-100.5 degrees Fahrenheit, but environmental factors also affect the readings. For example, horses tend to run higher temperatures in warm weather. Exercise, stress, or excitement significantly raise temperature as well (>105). Temperatures also run slightly higher, 101.5, in the heat of the day.

Temperatures over 102 degrees signal a fever and indicate some type of disease. Bacterial infections, such as respiratory colds and infected cuts, usually generate temperatures between 102.5-103.5 degrees.

Occasionally, infections cause biphasic fevers, with normal temperatures in the morning and spiked, high temperatures in the afternoon. When concerned about possible illness, record the horse's temperature twice a day and look for patterns and changes.

Pulse

The heart rate of a normal, resting horse is 28-40 beats per minute. The pulse can be taken from an area under the jaw, from

beneath the tail at its bone, or from an area on the side of the horse's foot. However, finding the pulse can be extremely difficult for the untrained. A stethoscope, especially when given direction by a veterinarian, makes listening for a heart rate easier.

Maximum heart rates can exceed 180 beats per minute, but a resting rate above 60 is reason for concern. Heart rates that stay above 80 in a calm horse signal serious trouble

The most common reason for an elevated heart rate is colic or intestinal pain. Such pain often causes mild to severe elevations in heart rate. The degree of increase can signal the severity of the pain.

Exercise, stress, fear, pain, and excitement will also elevate a horse's heart rate.

Respiration

Horses should spend roughly equal time breathing in and breathing out. Count respiration by watching the horse's nostrils or torso at the end of the rib cage or by listening to the trachea (windpipe). If you put an ear on a horse's neck, you can hear the air moving through the windpipe or lungs. (Only do this on a calm horse, exercising special caution to avoid injury.) A normal horse at rest breathes eight to 10 times per minute.

High respiratory rates indicate pain, excitement, elevated temperature, and a wide variety of possible infections. Thick mucous in the windpipe from a head cold will increase respiration and make it harder for a horse to inhale. Allergies and heaves make it hard for horses to breathe out. This level of distress can be easily heard.

Mucous Membranes

Mucous membranes can also tell you a lot about a horse's health.

To check membranes, raise the lip and look at the color of the horse's gums. They should be a soft pink.

A very pale or very red, "muddy" appearance indicates a problem.

Press gently on the gum and record the amount of time it takes for the blood to return. This is called capillary refill time. It should be between 1-2 seconds. A longer refill time indicates a sick horse in need of veterinary attention.

Dietary Needs

Water

Horses require an abundance of good drinking water for optimum health. Lack of water intake often results in dehydration, intestinal impactions, and colic. In fact, researchers link restricting a horse from water for even short periods of time to an increase in colic. Therefore, horses need water to be available in stalls, pens, and pastures at all times to help them maintain good health.

In an investigation, always ask, “Where is your horse’s water source, and what steps do you take to ensure enough fresh water is available at all times?”

As a general rule, provide the average horse at rest a total of 12-15 gallons of fresh water each day. This equals approximately 1-2 liters of water consumed per hour.

It helps to determine how much water a horse regularly drinks so that normal levels for that horse can be established. Owners can determine such baselines easily by measuring water consumed over a 24-hour period.

Provide water to horses being worked or ridden hard every two to four hours. Diet, exercise, lactation, and ambient temperature also influence water maintenance needs.

Water sources should be clean and free of debris to encourage drinking. If using an automatic watering device, check frequently for proper function and water temperature (45°-65° F).

When traveling or moving to new places, available water may taste differently than

water the horse normally drinks. In these instances, adding water from home to water at the new location can encourage water consumption. If this method is not practical, add a few drops of peppermint to the water at the new location to mask unfamiliar tastes.

Electrolytes and salt blocks also encourage water consumption. If you suspect electrolyte loss, make a separate bucket containing electrolytes available. Or, add salt (2 tablespoons) to the grain ration to increase water intake.

During the summer months, horses require a source of clean, cool drinking water. Under drought conditions, pollutants in water systems sometimes increase in concentration, placing horses at greater risk for disease. Especially in areas where horses get water directly from a natural source, such as a pond or stream, owners must have backup watering systems in place.

While the horse’s need for water declines in winter, researchers have linked big drops in consumption to colic. Owners can ensure their horses drink at regular intervals by preventing water sources from freezing. Using heated, automatic watering systems or adding warm water to the water source two or three times a day accomplishes this goal.

Assessing Hydration

Dehydration falls into three classifications:

1. **Mild dehydration** - Estimated at 5-7 percent of body weight in water loss. Signs of mild dehydration include depression, dry mucous membranes (gums),

and prolonged capillary refill time (>2 seconds).

2. **Moderate dehydration** - Estimated at 8-10 percent water loss. Signs of moderate dehydration include depression, weak pulse strength, poor jugular vein distension, prolonged capillary refill time (2-4 seconds), sagging skin, and elevated heart rate.
3. **Severe dehydration** - Estimated at greater than 10 percent water loss. Horses with signs of severe dehydration feature cold limbs, appear near death, and have persistent tenting of the skin. Severely dehydrated horses may suffer from multiple body system organ failure.

To Test Hydration

One simple way to assess hydration is to pinch the skin on the horse's neck. In a well-hydrated horse, the skin should quickly return to its normal position. In a dehydrated horse, the skin will return slowly (>2 seconds). If necessary, a veterinarian can perform blood tests to accurately determine a horse's hydration and electrolyte status before beginning appropriate therapies.

Food

Feeding is the number one priority to any horse. In fact, a good appetite is the best sign of a happy, healthy horse. Feeding, however, must be managed properly so that the horse gets its daily dietary requirements and maintains a healthy weight. Overly thin horses may lack energy, and they may be weak, cold, and less able to ward off illness. On the other hand, overweight horses place undue stress on their limbs, making them more likely to founder.

In an investigation, always ask, "What, how much, and how often do you feed your horse?"

Types of Food

While companies sell several complete feed products and supplements, hay should be the mainstay of any horse's diet. Hay is optimum for horse health because it provides fiber for intestinal health and chew time to relieve boredom. Horses are by nature grazing animals. They need to chew their food to remain content.

There are two different classes of feed hay for horses:

1. **Grass hay**, the traditional "safe" horse hay, includes Timothy, Brome, and orchard grass. Never confuse grass hay with grass clippings, which should never be fed to a horse.
2. **Alfalfa and clover hay**, with higher protein, three times the calcium, and more vitamins than grass hay, is often fed to young, growing horses and lactating brood mares.

Good hay is free of mold, dust, and weeds. It features a bright green color and a fresh smell. It is leafy, soft, and dry but not brittle. Feeding moldy, dusty hay can cause serious medical problems like colic and respiratory irritations.

While most horses will not require additional food sources, hay alone may not be sufficient for young horses, older horses, horses in hard work, pregnant mares, and mares with foals. For these animals, owners should supplement the diet. However, if a horse is fed a mixed diet, feed the hay first, about 15 minutes prior to feeding again.

Some of the most common food supplements include:

- Carrots and apples
- Cod liver oil (rich in vitamins)
- Molasses
- Corn oil (a rich source of energy)
- Trace mineral salt block
- Beet pulp (rich in energy and protein)

Horse owners often add concentrates, which include grains (whole, rolled, or cracked), sweet feed (grain mixed with molasses), and manufactured pellets. Oats, the safest horse grain, provide fiber (from their hulls) and energy (from the kernel). Corn, with its very thin covering, provides little fiber but twice the energy content as the same volume of oats. Corn, therefore, can be a good supplement for very active horses, though corn oil is most often recommended.

Commercial feeds come as pellets or grain mixes. Pellets often contain both hay and grain. “Sweet feed” grain mixes feature combinations of oats, barley, or corn, molasses, and a protein pellet.

In addition to hay and/or grain, a horse needs free access to a trace mineral salt block. Trace mineral salt is regular “table salt” (sodium chloride) with important minerals added.

Amount Required

Since the horse digestive system is designed to handle small, frequent meals, horses need to be fed two to three times every day. Horses have a strong biological clock and should be fed at the same time every day — feeding late or inconsistently can result in colic as well as unpleasant stable vices and bad habits.

Horses should be fed about two pounds of hay per day for every 100 pounds of body weight. Therefore, a 1,000-pound horse should eat 20 pounds split into two, 10-pound feedings. (Again, most of this should be hay.)

Hay should be fed by weight not flakes. Two flakes of dense alfalfa hay could weigh as much as 14 pounds while two flakes of fluffy, loose grass might only weigh four pounds.

Note: Grain should be fed by weight, not volume, which is inaccurate. A two-pound coffee can holds 1.1 pounds of bran, 2.1 pounds of sweet feed, and 2.9 pounds of pellet feed.

Precautions to take in feeding horses:

1. Make all changes in feed gradually whether it’s a change in type or amount.
2. Don’t feed a horse immediately after hard work, and don’t work a horse until at least one hour after a full feed.
3. Feeding at ground level is natural and provides a horse with a good neck and back stretch. But if a horse eats sand with the feed, it can accumulate at the bottom of the intestine and cause colic. Feeders or rubber mats reduce this type of contamination.
4. Horses are herd animals and have complex social structures. When feeding in groups, minimize competition, fighting, and unequal rations. Ideally, each horse should be fed individually. Eating food too quickly can result in choking, inadequate chewing, and poor nutritional absorption.

Keep the following in mind when investigating feeding areas:

1. Feeders need to be clean and safe.
2. Moldy or spoiled feed can cause colic.
3. Sharp edges, broken parts, loose wires, or exposed nails can cause injury.

Feeding the Chronically Malnourished or Starving Horse

According to some surveys, the most common reason given for equine malnutrition is owner ignorance. Even the best cared for horses can become malnourished due to the effects of serious disease. Whether a horse is malnourished from disease or neglect/abuse, you cannot simply throw him some hay and a little grain and assume everything will be fine.

Chronically malnourished horses often do not respond successfully to refeeding and may even die due to a complex array of physiological disorders. Therefore, it is critical to consult with an equine veterinarian who is knowledgeable in feeding requirements for starving horses and who can develop a feeding program to best serve the horse's nutritional needs.

Housing Requirements

By nature, the horse is an outdoor animal. In the wild, horses seek canyon walls, banks, trees, and brush for protection from sun, wind, cold, and storms. In captivity, healthy horses with a full winter coat can withstand extreme cold weather provided they are dry, out of drafts, and have room to move about. Tying horses outside on a cold night or forcing them to stand out in damp conditions puts them at risk.

For optimum protection, owners should build a three-sided horse shelter. Many Departments of Agriculture or farmer's supply stores carry plans for a standard shelter. Inside the shelter, horses need clean straw bedding. Owners should avoid concrete and other hard or irregular floors with too little bedding because they are hard on feet and legs.

A horse can produce up to 50 pounds of manure every day. If left in place, manure and urine quickly become breeding grounds for disease. For example, when manure- and urine-soaked bedding decomposes, it releases ammonia that can sting eyes and burn lungs. Also, horses that stand in wet manure and urine have a

higher incidence of thrush and other hoof problems.

Failure to maintain proper sanitary conditions can result in a variety of problems, including fly and pest infestation, hoof problems, and disease.

Minimum sanitary measures include:

- Removing wet bedding from stalls **daily**.
- Allowing stall floors to dry before rebedding.
- Taking care to remove manure, wet hay, unclipped grassy areas, and other moist plant material where stable flies like to lay their eggs. (Stable flies bite a horse's skin until it bleeds, then they feed on the blood. Flies favor the lower legs, flanks, belly, under the jaw, and the junction of the neck and chest.)
- Storing feed in vermin-proof containers like big garbage cans or bins. (Disease-carrying mice and rats contaminate feed. Trim grass around the barn to minimize nesting sites.)

Equine Health

Internal Parasites

Internal parasites are a primary cause of colic in horses and can cause or contribute to many respiratory, digestive, and performance problems.

In an investigation, always ask, “When was the last time the horse was wormed, and what was he wormed with?”

Signs of parasite infection range from reduced performance in mild cases to death in severe cases. Other signs include dull hair coat, weight loss, pot-bellied appearance, tail rubbing, colic, diarrhea, and loss of appetite. Contrary to popular belief, however, some horses with damaging parasites still appear well nourished with a shiny coat.

A horse becomes worm-infested by taking either worm eggs or infective larvae into its mouth. This occurs when grazing on contaminated pasture, eating contaminated feeds, drinking contaminated water, or licking contaminated hair coats. The opportunity for infection is ever present.

The American Veterinary Medical Association publishes a brochure on “What You Should Know About Internal Parasites in Horses” that provides the following information on common parasites and parasite prevention. The brochure is available on their website at www.avma.org.

Large Strongyles

Large strongyles are a group of internal parasites also known as bloodworms or redworms. Eggs in manure hatch into larvae consumed by the grazing horse. The larvae mature in the intestinal tract and burrow out into blood vessels, where they

migrate throughout various organs and eventually back to the intestine. The larvae can cause extensive damage to the lining of blood vessels.

Horses with large strongyle infestations may display weight loss, anemia, or colic. In extreme cases, the blood supply to the intestine may become completely blocked by the strongyles, resulting in severe (and even fatal) colic. In heavily infested horses, blood vessels may become distended and may even rupture, leading to sudden death. Frequent deworming is recommended to reduce these serious risks.

Small Strongyles

Small strongyles differ from large strongyles in several ways. First, small strongyles do not migrate through tissues as do large strongyles. Second, small strongyle larvae may become encysted. This means that they burrow into the intestinal wall and lay dormant waiting for the proper conditions to emerge. During this encysted period, unlike adult parasites, small strongyle larvae are not susceptible to most dewormers.

If large numbers of small strongyles emerge from the intestinal wall simultaneously, severe damage to the intestinal lining may result. Colic and diarrhea may be seen. Other signs of small strongyle infestation include loss of condition, weight loss, poor coat condition, and slowed growth.

Diagnosis and Treatment

Veterinarians diagnose strongyle infection from microscopic observation of eggs in the feces. Blood tests are often used to assess the seriousness of an infestation. Frequent deworming is recommended to

reduce the risk of serious problems from these parasites. An appropriate prevention program should be discussed with your veterinarian.

Ascarids

Ascarids (large roundworms) affect young horses more often than mature horses. The 6- to 12-inch long worms can number in the hundreds in the horse's small intestine and can adversely affect its nutrition. Colic, coughing, and diarrhea are common clinical signs associated with ascarid infestation. In addition, ascarids may cause blockage of the intestine or migrate through the lungs causing pneumonia.

Foals acquire infested ascarid eggs from feces that other horses have passed. Infested eggs, swallowed in contaminated hay or water, hatch in the intestinal tract. The young worms burrow through the intestinal wall, taking about a week to make their way to the lungs. From there, the young worms travel up the trachea to the mouth to be swallowed a second time. They mature in the intestine in two to three months, and then lay eggs that are passed in the feces, and the cycle is repeated. Female ascarids can lay up to 200,000 eggs per day.

Control of Ascarids

To adequately control ascarids, foals should be first treated at eight weeks of age and then every six to eight weeks until they are two years old, or as recommended by your veterinarian. Colic sometimes results when young foals are dewormed for the first time.

Pinworms

Though less dangerous than other internal parasites, pinworms are annoying to the horse because they cause severe anal itching. A characteristic of pinworm

infestation is rubbing of the tail and the anal region causing broken tail hairs and bare patches around the tail.

Horses acquire the parasite by consuming contaminated water, grain, hay, or grass. Young worms mature in the large intestine in three to four months, then crawl part way out of the anus to deposit their eggs on the adjacent surface. The eggs hatch outside of the horse's body and become infective in a few days, although they can survive unhatched for several months.

Pinworms can be treated successfully with the same drugs that are effective against strongyles and ascarids.

Tapeworms

Mites living in a horse pasture may consume tapeworm eggs from the feces of infested horses. Grazing horses may then swallow the mites and become infested with tapeworms. Tapeworm infestation in horses may lead to varying degrees of colic. Therefore, it is important to include treatment for tapeworms in your deworming plan. Because many deworming agents do not kill tapeworms, a specific product may need to be added to your deworming program. Consult a veterinarian for the most effective treatment plan.

Bots

Bots are the larvae (immature flies) of the botfly. Since these flies are common in the horse's environment, it is likely that most horses will become infested.

Life Cycle

During late summer and early fall, adult botflies lay eggs on the hair of various parts of horses, particularly around the chest, forelegs, throat, and nose. Stimulated by the horse's licking, the

larvae hatch and enter the horse's mouth, settling in the tissues of the gums, cheek, and tongue. After a month, the larvae migrate and attach to the stomach lining causing irritation, interfering with digestion, and obstructing the opening to the small intestine. After eight to 10 months, bot larvae pass in the feces and burrow into the ground, eventually maturing into adult flies and beginning the cycle again.

Treatment

Since it is likely a horse will become infested, treatment should be scheduled from the time botflies are seen in the environment or nits are observed on the horse until a month after the first hard frost. A veterinarian can recommend the best products and frequency of treatment against bots as part of an overall parasite control program.

Parasite Prevention

Environmental measures that break the life cycle of internal parasites are as important as administering dewormers. Follow good management practices to control the frequency and spread of internal parasites.

- Remove manure daily from stalls and weekly from pastures.
- Be sure pastures and paddocks are well-drained and not overpopulated.
- Compost manure rather than spreading it on fields where horses graze.
- Use a feeder for hay and grain, rather than ground feeding.
- Initiate effective fly control programs.
- Routinely examine horses for telltale signs of infestation.

- Establish a parasite prevention and monitoring program with your veterinarian.

Teeth

A horse's teeth keep growing throughout its life. As they grow, horse teeth develop sharp edges and can become quite uneven, making it difficult and painful for a horse to chew food effectively, resulting in weight loss. If a horse's teeth are not cared for, it can result in abuse or contribute to the horse losing weight.

In an investigation, always ask, "When was the last time the horse had its teeth floated?"

"Floating" means smoothing and contouring a horse's teeth with a file (called a "float"). More specifically, it means removing or smoothing sharp points on the outer edge of upper molars and inner edge of lower molars. It's something that is routinely done by veterinarians, once or twice a year, or more often if the horse requires it.

Floating is necessary because of the anatomy of the horses' teeth, where the upper molars set wider apart than the lower molars. Horses have to chew side to side to get good contact with upper and lower molars. The horse opens the mouth slightly, moves the jaw to one side. As the mouth closes the chewing surfaces shear off or mince food. As the jaw returns to the resting position, the chewing surfaces separate.

Incisors are designed to bite off forage, after which the tongue moves forage back to the molars. The molars crush and shear forage into small pieces, which aids in digestion.

Forage gets only one trip through the mouth, so it must be minced adequately, or nutrient absorption diminishes. A horse with bad teeth or abnormal teeth can show signs of starvation. Once teeth problems are corrected, the horse should gain weight.

Some Abnormal Teeth Conditions

1. “Parrot mouth” is a result of the upper and lower incisors not meeting because the lower jaw is too short. This condition is rather common and may seriously interfere with grazing and cause weight loss.
2. “Monkey mouth” is the opposite of parrot mouth and is seldom seen in horses.
3. “Cribbing” is a habit common to stabled horses which damages incisors by chipping or breaking them.

Assessing the Age of a Horse

Horses’ teeth are often used to estimate the animal’s age.

At five years of age, a horse has forty teeth:

- 24 molars or jaw teeth.
- 12 incisors or front teeth.
- 4 tusks or canine teeth between the molars and incisors.
- Some horses also have wolf teeth. Wolf teeth lie in front of the upper cheek teeth and sometimes in front of the lower cheek teeth as well. These teeth are very sharp. If present, they can cause problems in placing a bit in horse’s mouth as they sit where the bit normally inserts.
- At birth (or within six days), only the two middle incisors appear.

- At one year old, all the incisors of the first, or milk, set of teeth are visible.
- Between ages two and three, horses shed baby teeth.
- Before three years old, the permanent incisors have come through.
- At four years old, the permanent dividers next to the incisors have emerged.
- At five years old, the mouth is perfect, the second set of teeth having been completed.
- At six, the hollow under the incisors, called the hook, has disappeared from the incisors and diminished in the dividers.
- At seven, the hook has disappeared from the dividers, and the next teeth are level, though showing the hook (commonly called the “seven year hook”).
- At eight, the hook has gone from the corners, and the horse is said to be “aged.”

Hooves

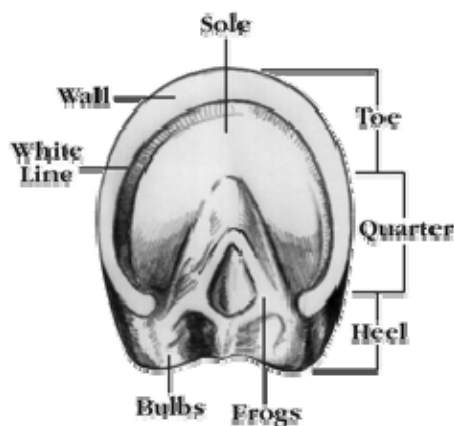
“No foot - no horse.” True equestrians know that the hoof of a horse is the most important body part. The conditions of the feet are of prime importance to the health and comfort of a horse. Like tires on a car, the hoof stands between the horse and the road. Just as you wouldn’t drive a car without tires, you should never ride a horse with problem feet.

In an investigation, always ask, “How often do you or a farrier check and maintain your horse’s hooves?”

The hoof is quite different from a human foot or a dog’s paw. A hoof has unique parts and features that require special care. Look at the bottom of the hoof, and you

will see the outer layer of the hoof, called the “hoof wall.” The hoof wall is visible when the horse stands with feet on the ground. This hard surface, sort of like a fingernail, braves the elements. The horse shoe nails into this layer. Just inside the wall is the white line. The sole of the foot is the area between the white line and the triangle shaped form, known as the frog (in the center of the foot).

The Parts of the Hoof



Maintaining the Hoof

It is important that the horse lives in a clean dry stall and dry pasture. Wet areas breed bacteria that result in a disease known as thrush. You will know if a horse has thrush because of the offensive smell coming from the hoof. The frog may also appear dark and overly soft. Consult a farrier if you feel this exists and see what he or she recommends.

A balanced diet is important to hoof health. Too much lush grass in the spring or too much grain with little work can result in laminitis (also known as founder), which is a swelling and fever in the feet. Ponies are particularly susceptible to laminitis and should receive limited amounts of grain for that reason. Consult a veterinarian if you think laminitis exists.

A horse's hoof should be cleaned before and after riding. If the horse isn't ridden very often, then ideally the hoof should be cleaned once a day. However, once a week will do, if there are no problems.

Many horses have shoes left on much too long. Horses that wear shoes too long can overgrow the shoe at the heel and walk over the outer branches. This causes pressure to the sole, leading to bruising. It also can wedge the wall from the sole, causing separation.

How often should a farrier shoe or trim the horse's feet? There is no easy answer. The amount of hoof growth versus hoof wear determines how often trimming is needed, so there is no single formula that can be applied. Younger horses, for example, experience quicker hoof growth than older animals. Also, the amount of exercise the horse gets greatly affects hoof growth. Whether or not a horse wears shoes also affects growth: When a horse has shoes on, the hooves do not wear and will need to be re-shod more often. Some owners give horses a break from shoes during winter months when they are ridden less often.

As a rule, a farrier should check the hooves and trim the feet every six to eight weeks, regardless of whether a horse wears shoes or is barefoot.

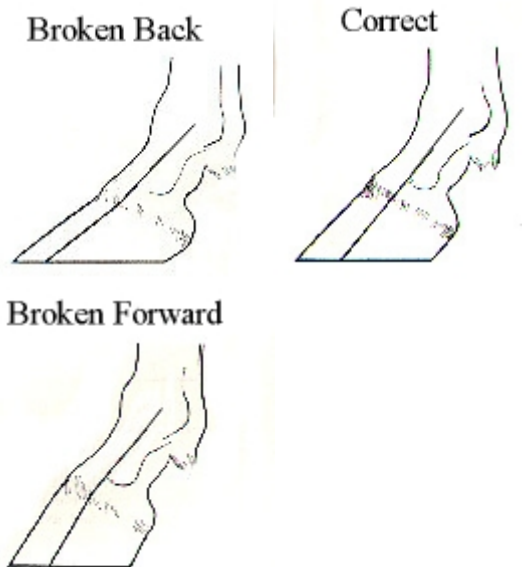
Look for these signs of hoof trouble:

1. The horse stumbles due to excessive toe length.
2. The hoof wall is cracking, and/or the shoe is loose.
3. The hoof wall is hanging over the shoe. Either at the toe or heels.
4. The shoe is wearing through at the toe.

5. The hoof is out of balance, either side to side (heels uneven) or toe to heel (usually long toe and low heel). Uneven shoe wear is also a sign of this.
6. The shoe is loose. Signs of this can be raised clinches, heels over the shoe, a clattering sound when moving across a hard surface, or clinches or nails pulled through or down the hoof wall.

A Properly Shod Foot

The alignment of the hoof needs to be correct. Alignment is actually the balance of the hoof from front to back. To estimate proper alignment, view the horse from the side. Draw an imaginary straight line through the center of the long pastern bone. It should be parallel to the front of the hoof.



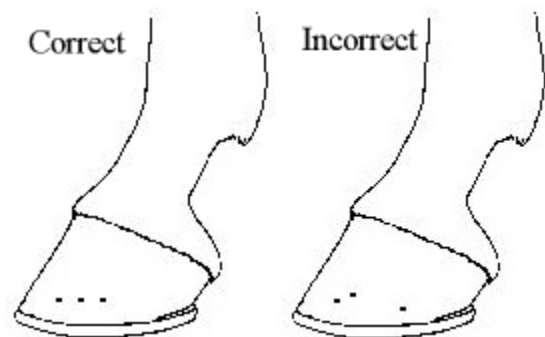
The frog is a traction device as well as a cushion and the heart of the foot. Since the frog sloughs off or exfoliates by use and growth, it should be trimmed sparingly. The trimming should be mainly at the edges to expedite removal of manure and

dirt. This will reduce the incidence of thrush.

The shoe should be shaped to fit the hoof, not the hoof shaped to fit the shoe. With a properly fitted shoe, only a small amount of wall at the toe should be rasped off. This amount should be less than one-eighth of an inch wide. The heels of the shoe should extend past the wall both in length and width. Also, the last nail should be at the widest part of the hoof. Placement any farther back restricts the action of the hoof, which increases concussion.



The nail clinches should be evenly spaced and in a level straight line.



Common Hoof Problems

Thrush and Canker

Thrush, the more common of the two, is an infection of the frog. Canker (hoof rot)

is an infection of the whole foot. You'll recognize both from a foul odor and discharge from the disintegrating frog. Both are caused by keeping a horse in wet, dirty conditions.

If you find that the horse is just starting a thrush infection, you can treat it with brush-on medications available in tack stores. For more advanced cases, consult a veterinarian or farrier.

Corns and Bruised Sole

Corns are caused by constant, small repeated pressures to a part of the foot as a result of poor shoeing job or shoes that are left on too long.

Bruises are caused by a single, traumatic blow to the foot, such as stepping on a piece of gravel. Bruising is more likely to happen if the horse has naturally flat soles, or if the sole and frog have been pared too thin in trimming. If the bruise or corn has not abscessed, removing the cause of the problem is usually the only treatment required. Horses that bruise easily may need protective shoes and pads.

Abscesses

If the horse suddenly goes dead lame on one foot, an abscess is the most probable cause. It could be caused by a puncture wound or by a corn or bruise. A veterinarian will drain the abscess, prescribe follow-up treatment, and probably also give the horse a tetanus shot.

Cracks

Cracks in the hoof wall can start at the bottom and go up or start at the top and go down. The seriousness of a crack depends on how deep it goes and where it is located. If the crack is deep enough that it bleeds after the horse has exercised, infection is likely.

Cracks that start at the top of the foot are due to disturbances in hoof growth resulting from coronet injuries such as wire cuts. Cracks that start at the bottom of the foot are caused by dry or thin hoof walls or improper trimming. Serious cracks may require corrective shoeing.

Seedy Toe

Seedy toe is a separation of the hoof wall from the white line in the toe region causing a hole between the hoof wall and the sensitive laminae. The outside of the hoof wall looks sound, but the inside becomes crumbly. Poor foot care is the most common cause. Seedy toe is easily caused when the hoof wall is allowed to grow too long. It also commonly occurs with chronic laminitis.

Laminitis or Founder

Laminitis, commonly called founder, is an acutely painful inflammation of the foot. It occurs most often in the front feet although it can affect the hind feet as well.

Because of the progression of laminitis, it should be considered a genuine threat to the horse's life. If the condition is caught in time, there is hope that the progression can be stopped and the horse saved. So, if you suspect laminitis, consult a veterinarian immediately.

Navicular Disease

This is caused by degeneration of the navicular bone, a small bone inside the foot, and the rubbing of the tendon which passes over it. Symptoms include pointing; a short stubby, painful stride; and lameness. This disease is incurable once bone changes develop, but it may be helped by therapeutic shoeing or medication.

Use Abuses

Overriding

Riding horses too far or too fast or longer than they are physically fit to perform is a common form of abuse. Contrary to impressions created by movies and TV, horses cannot race or gallop indefinitely. Many a willing horse has been killed because an ignorant rider forced her to gallop beyond her capability. Generally, 200-300 yards is a normal maximum galloping distance without distress, unless the horse is in excellent working condition. Even then, few horses can safely reach a half-mile at full speed.

The walk and the trot are the usual ground covering gaits of the horse. These were the gaits used by the Army. Properly regulated, cavalry horses averaged between five and six miles per hour going 30 to 40 miles day after day and did it with little stress – but they received the best feed, care, and attention.

There are many other less obvious abuses:

- Riding a lame horse
- Riding a horse with a sore back
- Sloppy, careless posture in the saddle causing a sore back
- Whipping
- Jerking on the bridle reins
- Forcing horses to do things they do not understand or cannot do

Another is mounting a horse and riding off at a gallop with no opportunity for the horse to warm up and relax. Equally bad is dismounting from a horse that is very warm or wet with sweat and allowing him to stand still, until the muscles chill and cramp.

Transporting

Another common abuse is the transporting of horses for too long without feed, water, or rest. Riding in a trailer or truck for most horses is as tiring as being ridden under saddle, and they should be handled accordingly. Long hauls further complicated by too much or too little ventilation, forced inhalation of motor exhaust fumes, and chilling from rain or cold can severely stress a horse. Many become ill, even die, from easily avoided stresses.

Another transportation problem is faulty equipment: trucks and trailers with unpadded, slick floors; deteriorating, weak floors or walls that a horse's foot can break through; a back end gate or door that does not securely fasten or someone forgets to fasten; and sharp objects on, in, and around vehicles. All are unnecessary hazards that cause numerous avoidable injuries.

Pad the floor of any horse transport vehicle in some manner and place additional bedding to assure firm footing for the horse while loading and in transit. Good ventilation is essential, but avoid chilling drafts and motor fumes. Make a stop for water and a brief rest every three or four hours. Unload horses and give them time exercise and relax every seven or eight hours. Feed lightly, but water liberally. Boots and rest bandages will prevent foot and leg injuries.

Most importantly, drivers must maintain a consistent, not jerky, speed, and they must never start, stop, or turn the vehicle abruptly.

Soreing

In the past, “soreing” was a common practice seen most frequently with Tennessee Walking Horses and racking horses. Soreing involves inflicting pain to the horse’s limbs to affect and accentuate the gait.

Sore (as defined in the Horse Protection Act) when used to describe a horse means: (1) An irritating or blistering agent has been applied, internally or externally by a person to any limb of a horse, (2) Any burn, cut, or laceration has been inflicted by a person on any limb of a horse, (3) Any tack, nail, screw, or chemical agent has been injected by a person into or used by a person on any limb of a horse, or (4) Any other substance or device has been used by a person on any limb of a horse or a person has engaged in a practice involving a horse, and, as a result of such application, infliction, injection, use, or practice, such horse suffers, or can reasonably be expected to suffer, physical pain or distress, inflammation, or lameness when walking, trotting, or otherwise moving, except that such term does not

include such an application, infliction, injection, use, or practice in connection with the therapeutic treatment of a horse by or under the supervision of a person licensed to practice veterinary medicine in the State in which such treatment was given.

Since the passage of the Federal Horse Protection Act of 1970, (Pub. L. 91-540) the practice has steadily declined. Under the Horse Protection Act, “no chain, boot, roller, collar, action device, nor any other device, method, practice, or substance shall be used with respect to any horse at any horse show, horse exhibition, or horse sale or auction if such use causes or can reasonably be expected to cause such horse to be sore.”

Representatives of the Animal and Plant Health Inspection Service (APHIS) have responsibility of enforcement.

While enactment of the Horse Protection Act has largely stopped this cruelty, investigators should still be aware of the practice.

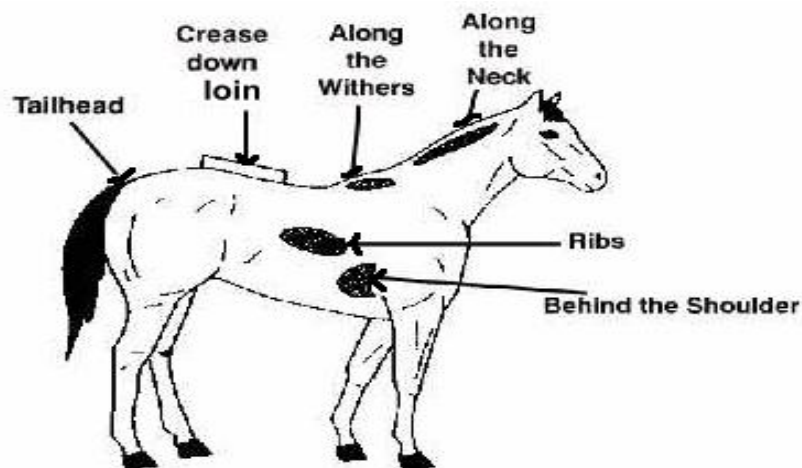
Assessing Levels of Abuse/Neglect in a Horse

All investigators assigned to horse cruelty complaints at a minimum need to be familiar with the Henneke System. Developed in 1983 by Don R. Henneke, Ph.D., it is based on both visual appraisal and palpable fat cover of the six major points of the horse that are most responsive to changes in body fat.

The Henneke Body Condition Scoring is the chief tool used by law enforcement nationwide to determine the condition a horse at any given time. People working in

this field will refer to the horse as being a “1 on the Henneke” or a “3 on the Henneke.” The Henneke Chart allows for a standardized scoring system, whereas the terms, “skinny,” “thin,” “emaciated,” or “fat” are all subjective terms that have different meanings to different people.

The chart covers six major parts of the horse: neck, withers (where the neck ends and the back begins), the shoulder area, ribs, loins, and the tail head area.



The chart rates the horses on a scale of 1 to 9. A score of 1 is considered poor or emaciated — no body fat — whereas a nine is extremely fat or obese. Horse veterinarians consider a body score of between 4 and 7 acceptable. A 5 is considered ideal.

A horse that is rated a 1 on the Henneke Chart is often described as a “walking skeleton” and is in real danger of dying. Courts in the United States have upheld the seizure of such horses by law enforcement citing exigent circumstances, meaning there was a very strong possibility the horse would die unless immediate action was taken.

Trained observers visually inspect the horse and also to palpate each part of the horse with their hands to feel for body fat. The observer then assigns each area of the body the numerical score that corresponds with the horse’s condition. The scores from each area are then totaled and divided by six. The resulting number is the horse’s rating on the Henneke Body Scoring Condition Chart.

Note: When a horse has a long hair coat, it is imperative that the person scoring the horse use his hands to feel the horse. Except in the most extreme cases, the horse’s long hair coat will hide the protrusion of bones.

Henneke Body Condition Scoring Chart

CONDITION	NECK	WITHERS	LOIN	TAIL HEAD	RIBS	SHOULDER
1 POOR	Bone structure easily noticeable	Bone structure easily noticeable	Spinous processes project prominently	Tail head (pin bones) & hook bones projecting prominently	Ribs projecting prominently	Bone structure easily noticeable
2 VERY THIN	Faintly discernible	Faintly discernible	Slight fat covering over base of spinous processes. Transverse processes of lumbar vertebrae feel rounded. Spinous processes are prominent.	Tail head prominent	Ribs prominent	Faintly discernible
3 THIN	Neck accentuated	Withers accentuated	Fat buildup halfway on spinous processes, but easily discernible. Transverse processes cannot be felt.	Tail head prominent, but individual vertebrae cannot be visually identified. Hook bones appear rounded, but are still easily discernible. Pin bones not distinguishable	Slight fat cover over ribs. Ribs easily discernible	Shoulder accentuated
4 MODERATELY THIN	Neck not obviously thin	Withers not obviously thin	Negative creases along back	Prominence depends on conformation; fat can be felt around it. Hook bones not discernible.	Slight fat cover over ribs. Ribs easily discernible	Shoulder accentuated
5 MODERATE	Neck blends smoothly into body	Withers rounded over spinous processes	Back level	Fat around tail head beginning to feel spongy	Ribs cannot be visually distinguished, but can be easily felt.	Shoulder blends smoothly into body

CONDITION	NECK	WITHERS	LOIN	TAIL HEAD	RIBS	SHOULDER
6 MODERATELY FLESHY	Fat beginning to be deposited	Fat beginning to be deposited	May have slight positive crease down back	Fat around tail head feels soft	Fat over ribs feels spongy	Fat beginning to be deposited
7 FLESHY	Fat deposited along neck	Fat deposited along withers	May have positive crease down back	Fat around tail head is soft.	Individual ribs can be felt, but noticeable filling between ribs with fat	Fat deposited behind shoulder
8 FAT	Noticeable thickening of neck	Area along withers filed with fat	Positive crease down back	Tail head fat very soft	Difficult to feel ribs	Area behind shoulder filled in flush with body
9 EXTREMELY FAT	Bulging fat	Bulging fat	Obvious positive crease down back	Bulging fat around tail head	Patchy fat appearing over ribs	Bulging fat

Description of the Score System

1. **Poor: Emaciated.** Prominent spinous processes, ribs, tail head, and hooks and pins. Noticeable bone structure on withers, shoulders, and neck. No fatty tissues can be palpated.
2. **Very Thin: Emaciated.** Slight fat covering over base of spinous processes. Transverse processes of lumbar vertebrae feel rounded. Prominent spinous processes, ribs, tail head, and hooks and pins. Withers, shoulders, and neck structures faintly discernible.
3. **Thin:** Fat built up about halfway on spinous processes. Transverse processes cannot be felt. Slight fat cover over ribs. Spinous processes and ribs easily discernible. Tail head prominent, but individual vertebrae cannot be visually identified. Hook bones appear rounded, but easily discernible. Pin bones not distinguishable. Withers, shoulders, and neck accentuated.
4. **Moderately Thin:** Negative crease along back. Faint outline of ribs discernible. Tail head prominence depends on conformation; fat can be felt around it. Hook bones not discernible. Withers, shoulders, and neck not obviously thin.
5. **Moderate:** Back is level. Ribs cannot be visually distinguished, but can be easily felt. Fat around tail head beginning to feel spongy. Withers appear rounded over spinous processes. Shoulders and neck blend smoothly into body.
6. **Moderate to Fleshy:** May have slight crease down back. Fat over ribs feels spongy. Fat around tail head feels soft. Fat beginning to be deposited along the sides of the withers, behind the shoulders, and along the sides of the neck.
7. **Fleshy:** May have crease down back. Individual ribs can be felt, but noticeable filling between ribs with fat. Fat around tail head is soft. Fat deposits along withers,

behind shoulders, and along the neck.

8. **Fat:** Crease down back. Difficult to palpate ribs. Fat around tail head very soft. Area along withers filled with fat. Area behind shoulder filled in flush. Noticeable thickening of neck. Fat deposited along inner buttocks.
9. **Extremely Fat:** Obvious crease down back. Patchy fat appearing over ribs. Bulging fat around tail head, along withers, behind shoulders and along neck. Fat along inner buttocks may rub together. Flank filled in flush.

Common Horse Abuses

Unfortunately, the number of ways to abuse a horse is only limited by the human imagination. Listed below are the most common ways people intentionally or unintentionally abuse horses:

- Soring, the driving of nails into the horse's frog making it painful for the horse to bear much weight on its foot, to alter the horse's gait
- Wearing chains, wires, or beads on the hoof to alter the horse's gait
- Trussing horses in restrictive harnessing to change the horse's gait.
- Hanging heavy weights on a horse's neck to lower the head for competition (Western Pleasure classes)
- Tail blocking, injecting rubbing alcohol in the tail or surgically altering the tail, to keep the horse's tail down
- Bestiality, sex with animals
- Mule Diving, forcing animals to jump off high planks into small pools of water
- Abuse by neglect
- Intentional abuse

Abuse Investigation

The goal of the operational guide is to specifically address horse care and abuse in a thorough, but brief document.

Realizing that the material could easily occupy a textbook, the author assumes that investigators have training, have done research, and have a thorough understanding and knowledge of:

- Jurisdiction
- Your level as a Peace Officer and the authority and restrictions of that level
- Your jurisdictional and state laws
- Animal guardian's Constitutional rights
- What is "right" vs. what is "legal"
- Laws of search, seizure, warrants, warrant exceptions, custodial interviews, and non-custodial interviews
- Legal and civil repercussions of violating someone's civil rights
- Evidence collection and the rules of evidence protection

Please read this entire manual before embarking on an investigation.

Receiving the Complaint

Getting accurate, detailed information from the onset is critical to any good investigation. Train the dispatcher or call-taker to gather as much detail from the informant as possible, including:

- The informant's name, address, phone number, and relationship to the suspect
- The suspect's name, address, phone number, and place of employment
- The location of the incident
- The current location of the animal
- The animal's description, age, and name

- What happened?
- How did it happen?
- When did it happen?
- How do you know it happened?
- Are there any other witnesses?
- Were there any actions taken to protect the animal or resolve the problem and by whom?
- Were there any weapons involved, or are there any officer safety considerations?
- Does the suspect have any criminal history?

Dispatching the Call

Once the call-taker gathers all the preliminary information, it is the dispatcher's job to provide the investigating officer with all of the important facts. Place special emphasis on any officer safety information such as known weapons, threats towards officers, and a violent criminal history. The dispatcher, then, assigns an appropriate case number and provides the necessary resources for the officer to perform his duty. For example, if the officer investigating is a humane officer and there is a known weapon on scene, the dispatcher should request police assistance before sending the humane officer to investigate.

The officer must be able to accurately navigate to the scene and develop a plan to safely approach the location. The officer must also evaluate the urgency of the call. Is the horse in immediate danger? If not, would it be better to do the investigation during the day rather than at night? What resources are needed? Will a supervisor, a veterinarian, the State Board of Agriculture, a team of rescuers, a horse trailer, a water truck, or feed truck be needed for this call? Some of these questions may only be answered after the officer has responded.

Arrival on Scene

Approach the location in a safe manner. On initial approach, make notes of first impressions. What do you see, smell, hear? Is the horse in plain view, in a pasture, or in a stall? What will be the warrant considerations? Is the owner, caretaker, informant, or suspect in the area? Is the horse in immediate danger? Is the animal injured or does it have labored breathing? Is it standing or lying down? What is the overall condition of the horse? Can you see if there is food, water, or trace mineral block immediately accessible to the horse? What is the fencing like? All of this information is vital to obtain a warrant or to use in court testimony, if necessary.

To determine if the horse is in immediate danger, check the animal's vital signs. This includes body temperature, pulse, respiration, mucous membranes, dehydration, blood loss, serious injuries, shock, or inability or unwillingness to move. If horse requires first aid, begin to administer first aid right away. Also call a veterinarian familiar with treating abused horses immediately. You may also need to make arrangement for transportation. Do not attempt transportation without the recommendation and supervision of a veterinarian.

If the horse is not in immediate danger, investigation may begin.

Once emergency care is administered, decide if a warrant is needed for further investigation. Does this situation require a warrant? Can you get written consent for a search and seizure from the owner or property manager in lieu of a warrant? Know the legal ramifications of your decisions. If you are unfamiliar with writing a warrant, ask your local law

enforcement agency to assist you in writing and executing the warrant.

The Horse's Environment

When investigating a horse abuse case, obtain an overall picture of the horse's environment. If prosecution is required, the judge or jury is going to look at the "totality of the circumstances." The abuse case must be an impartial finding of facts only. The officer's job is to gather all the facts, present them to the district attorney. The district attorney, then, decides if there is enough evidence to pursue the case.

Pasture

In a pasture environment, focus on five areas:

- Food sources
- Water sources
- Terrain
- Fencing
- Shelter

Food Sources

A horse's digestive system is very complicated. Because of this, the horse has very special dietary needs. If the horse is given too much grain, for example, he could become very ill or die. Furthermore, the horse's teeth will continue to grow throughout its life. Horses require special attention to their teeth to keep them filed down and working properly so that they can properly chew their food. Become familiar with a horse's digestive system because starving horses is one of the most common abuses seen.

What the horse eats, how much the horse eats, and the quality of the food are all factors in the weight of the horse. Where does the horse's food supply come from? Is the pasture the only source of food? What type of food is in that pasture? Is it alfalfa hay, grass hay, weeds, or dirt? The

officer should collect samples of the food supply in the pasture for nutritional quality analysis.

Is the horse being fed hay that has been purchased? If so, do they have a receipt of that purchase? The officer will want to collect the receipt and samples of that feed for evidence. Is the horse being fed grass hay, alfalfa hay, pellets, sweet feed, grain, or a combination of feeds? What is that combination? What classes or education has the guardian had on feeding horses? Are there any additives included with the horse's feed like vegetables, molasses, cod liver oil, beet pulp, or vitamin mixtures? Having this information helps the veterinarian, if there is a toxicity problem in the horse.

What is the visual quality of the hay? It is leafy, which indicates more nutritional, or all stems? Is it dusty and moldy? These are harmful to the horse's health. How is the hay stored? Is it left out in the open, is it in a barn, or is it covered with a tarp? How much hay is present? All of these questions help the officer develop a picture of how often and the quality of food the horse is fed.

From what type of container is the horse being fed? Is the hay being tossed on the ground for the horse to eat? Is that in a clean stall or a feces covered floor? Is the horse eating all the feces in the stall because he isn't getting enough food? Is the horse fed in a trough, an old tire, a metal stand, or a bucket? Are there nails or sharp objects that could hurt the horse or prevent it from being able to get to the food? How and where is the grain stored? Does the horse have easy access to the grain? Is there a chance the horse will get in to the grain and founder? Is there a trace mineral block available to the horse?

How much does the horse get fed? How often does the horse get fed? Ask the guardian what exercise the horse gets every day. If the horse is an event horse, its nutritional requirements and food intake will differ drastically from a horse that walks back and forth in a paddock all day. Is the horse eating properly or has the guardian noticed any changes in the horse's eating behavior? Has the horse been defecating normally or has he had diarrhea?

Some weight issues with horses may be due to medical problems. When was the horse's last veterinary check up? Who is the horse's veterinarian? Is the guardian willing to sign a release of medical records for the horse's veterinary records? Will the officer have to get a warrant for this information? Does the guardian have any receipts from the veterinary visits? When were the horse's teeth last floated (filed down)? The ability to chew the feed may have a dramatic impact on the animal's ability to maintain weight. When was the horse last vaccinated or wormed? Does the horse have a legitimate illness that would cause him to be skinny? Is that horse being treated for this illness?

Water Sources

As a general rule, a resting horse consumes about 12-15 gallons of water a day. Because of this, the horse must have access to large amounts of fresh water at all times. Factors affecting water intake include illness, air temperature, amount of exercise, availability of shelter, amount of water, and the quality of water.

Illness may cause dehydration, or dehydration may be a factor in a horse becoming ill. To see if the horse is hydrated, part the horse's lips so that the gums are exposed. Press gently on the

upper jaw gum to make that part of the gum go white or “blanching” the gum. The gum should return to its normal color in less than 2 seconds. If it takes longer than that, the horse may be dehydrated or have a circulatory problem. If dehydration is a concern, contact an equine veterinarian immediately.

Air temperature and exercise affect horses' water intake. As the temperature goes up, there is a need for more water to keep the horse hydrated. The same is true for exercise. The more the horse exercises, the more water he needs. Furthermore, it takes horses more calories to metabolize cold water than it does tepid water. Therefore, snow does not constitute a good water source for horses. Shelter also is a factor. If the horse is able to find cool shelter from the hot sun, less water is required.

When investigating horse abuse the amount and the quality of the water supply is a critical factor. What is the source of the water? Is the water in a bucket, a trough, a natural stream, an automatic waterer, or a stagnant pond? How much water was available to the horse when the investigator arrived? Was the water container empty or full? Was the water frozen? What does the guardian do in order to keep the water from freezing when he/she is not around? Does it look like the water container is cleaned regularly? The officer should collect a water sample as evidence and to have it examined for quality and contamination.

Sometimes accessibility of water limits the guardian's ability to provide adequate water to the horse. Does it look like the guardian has easy access to provide water for that horse? Is there a hose nearby? Does the water have to be delivered by truck? How long has the horse been in that

location? Could this problem be solved easily or will the horse need to be moved?

Sometimes there are very easy solutions to solving watering issues. Many people install automatic waters and heaters to allow the horse access to fresh, unfrozen water at all times. Sometimes water has to be trucked in from long distances to provide fresh water. There are many solutions to many problems if the guardian is committed to providing good care for the horse.

Terrain

The pasture terrain can have a large impact on the horse's safety. Pastures that are very wet and have standing water frequently, can lead to horse hoof and leg damage. Open wells and old mines can mean a death sentence to horses if they get caught or hurt in one. Large holes in the terrain can lead to leg injuries. Swiftly moving rivers can cause a horse to lose its footing and perhaps drown. Is the pasture a dumping yard? Is there trash, debris, old cars stored in the pasture that could hurt the horse? A good investigator will take the time to walk the pasture and note any potential hazards that exist.

Fencing

Good fencing is a necessity for any horse enclosure. Thousands of horses each year are injured due to poor fencing. Some of these injuries may not require any medical attention, but some may be serious enough to require euthanasia. The issues with fencing range from fencing being made of wrong material, to aging fencing, to holes in the fencing.

Choosing proper fencing material can be the difference between life and death to a horse. What is the fencing material? Is the fence made of wood, barbed wire, regular

wire, electric wire, PVC, other piping, plastic, or some other material? If it is an electrical fence, where is the power source? Was that power source turned on? Is it properly grounded? Are there signs of cribbing on the fence? Are there rusty nails or wire sticking out of the fencing that could injure the horse? Is it sturdy enough to keep the horses contained? Will the horse be able to run through the wire and tear up its chest or get entangled?

Aging fencing is also a problem. At one time, the fence may have been strong and adequate to properly house a horse, but over time, the fence may have deteriorated. Are the wooden boards still in good shape? Are the posts still upright or is it leaning in places? Is the PVC brittle and broken in places or still in good shape? Walk the fence and see if there are any gaping holes in the fence due to boards falling down. Be sure to document the fencing in your report and take pictures.

Shelters

Shelters for horses in pastured areas may or may not be mandated by law in a given jurisdiction. If a shelter is provided for the horse, the investigator must note the condition of the shelter, the material of which it is made, what direction the shelter faces, the size of the shelter, if that shelter provides adequate protection for the horse from the sun, rain, and snow, and any hazardous items that may injure the horse as a result of the shelter.

Paddock and Stalls

Paddocks and stalls have similar environmental issues as pastures. Good fencing, adequate food and water sources, and good terrain are as important in paddocks and stalls as it was in the

pastures. However, paddocks and stalls have some unique traits that require special investigative attention. These traits are bedding, roofing, stall stability, size, and overpopulation.

Evaluate the stall bedding, roofing, and stability in your investigation. What is the bedding made of? Does it look like the stall has been mucked daily or is the feces packed down so far the horse has to lower his head to avoid hitting the roof of the stall? Does it look like the roof is in good shape, just been re-roofed, or could it fall on the horse at any time? What conditions are the stalls and paddocks in? Are there holes in the sides where horses have kicked through them? Are the gates falling off the hinges or secured tightly? Could a horse get injured by rough edges, holes, metal, or nails protruding from the stalls?

Some jurisdictions keep strict laws on the legal requirements for the size of stalls and the number of animals housed in those stalls. Be very familiar with those laws and be prepared to enforce them. Again, most of the time, the horse guardian is unaware of these laws and just needs to be educated in order to update the facility.

Animal Documentation

The reason animal cruelty investigators do the work they do is for their love of the animals. The animals, in addition to being our source of inspiration, are also one of our greatest sources of evidence in cruelty cases. Therefore, you must properly identify, document, and photograph each animal in an investigation. It is ideal to photograph them where they were when you found them before taking them out of their stall for more detailed photographs.

Photograph horses from a distance, showing all sides of the horse, and then

closer in, showing the horse's unique markings. Take close up photos of injuries or problems due to neglect.

Each animal identification must include the following:

- Species of animal
- Breed of animal
- Sex
- Color
- Size (how many hands, if known)
- Markings on face and legs (i.e., stars, blazes)
- Age
- Name
- Scars/tattoos/brands

Include these minimum notations in the veterinary report:

- Henneke Body Condition score
- Vital signs
- Body temperature
- Pulse
- Respiration rate
- Mucous membranes
- Hydration level
- Condition of teeth, coat, hooves, legs, ears, tail, mane, and any obvious injuries
- Animal's behavior (e.g., lethargic, afraid, calm, quiet, energetic, aggressive)
- Overall examination of the horse
- Any medical diagnosis of any diseases or parasites
- Documentation on any injuries to the horse
- Detailed necropsy, if warranted

Hooves are of special concern to the investigator. Horses that have been neglected may not have had their hooves trimmed or shoes fitted for years. They may have thrush, founder, navicular disease, or many other feet problems that

cause extreme pain. Most of these ailments need to be treated by a veterinarian and a good farrier.

Witnesses

In addition to the horses, witnesses are a great source of evidence. Witnesses can provide great first-hand accounts of cruel acts or be the informant that alerted you to the suffering animal. Witness accounts of the incidents will be only as accurate as their perception of the incident. For instance, if a witness sees a man shoot a horse in the head after hearing loud screaming, the witness may think the man is being very cruel by shooting that horse for no reason. What if the man's 10 year old daughter was walking near a field by her house, a vicious horse broke through a fence, started attacking the child, and attempted to maul her to death? The man saw this from his kitchen window, ran out of the house, and shot the horse. Was the witness's statement inaccurate? The witness said she saw the man shoot the horse for no reason. It was accurate because she never saw the horse mauling the girl because there was a fence blocking her view of the child.

Informants and witnesses may have personal reasons for reporting the abuse. They may not be completely truthful in their statements to you. They make report in retaliation for a variety of reasons (i.e., bad divorce situation, ongoing a neighbor dispute). Always check to see what the complaint history is on the property, animal, or suspect. Furthermore, during the initial screening of the call, make sure the call-taker asks if there is any relationship between the informant and the suspect. If you find that the informant is being untruthful in reporting the complaint, you may be able to charge that person with false reporting.

If you find that the complaint is a valid, and you have multiple witnesses, try to keep the witnesses separated. The reason for this is to get each story from each person as they saw it. The information will be much more factual and less tainted by other people's perspectives. It is highly recommended that you thoroughly interview all witness before you interview the suspect. This gives you a larger, more accurate picture of the account.

Video taping all interviews is preferred, but not always practical. A transcribed audio tape is helpful in court as well. Most district attorney's want at least a well written witness statement from each witness included in the case file. This also refreshes the witness's memory if the case goes to trial at a later date. The officer needs to make sure he has proper contact information for the witness in case prosecution goes to court.

Expert Witnesses

It is critical for a good horse abuse investigator to develop a strong relationships and network with people from all aspects of the horse business. These people need to include people who board, train, rescue, and transport horses. Veterinarians and farriers will also be important in your network.

These people can become good informants, educators, mentors. They can also provide expert testimony in abuse cases. Oftentimes, courts require these people to testify based on their specific expertise about what is standard for the horse industry. For example, veterinary testimony will almost always be used in a horse abuse case. Often, district attorneys do not know who to call as expert

witnesses in cases like this, so they rely on the officer's contact list of experts.

Evidence Collection

The transfer of evidence rule states that whenever two surfaces or substances come in to contact with each other, there is a partial transfer of material from one to the other. Because of this, it is absolutely critical that you protect your crime scene. You want to keep the scene in the condition it was found originally, and thus minimize the exposure to contamination. One way to do this is to minimize the number of people going in and out of the crime scene and to use the same routes. Keep an accurate log of who enters the scene, the dates, and the times. This will be used in court.

Photography

Use photography as the first form of evidence collection, assuming that the scene is stable and that there is no immediate threat of losing the evidence due to weather conditions. Photograph everything in its original state before you start collecting the evidence. Do not want to move or touch anything without first photographing it. If something does get moved accidentally, do not guess where it was and photograph it. Photograph it as you found it and document in your report that it had been moved from its original location.

Create a photo log of what you photograph, with the picture location and time of day taken. Document the F-stop and ASA if you know it. Do not use telephoto lenses, wide angle lenses, or filters. This distorts the reality of the picture and makes it inadmissible in court. Start by photographing the large picture, then move to more detailed evidence. Be sure to include address identifiers such as the

address on a building in the photographs. Maintain the chain of custody at all times for the film and the camera. In other words, document the times, dates, and persons involved with handling photographic evidence so that you can limit chances of tampering or loss.

Crime Scene Sketching

A crime scene sketch gives an aerial view of the scene. It is a small map of the scene. Document important evidence in the sketch, including animal placement, view of the barn, paddock, and pasture. Ideally, the sketch is measured and drawn to scale. There are manufactured templates for these drawings at most police supply stores. In these drawings, north is always at the top. Do the sketch in ink and include it in the case file. Place a key on the sketch that includes the case number, your name, the date, the time, the location, the scale (if used), and the suspect's name.

Crime Scene Notes

Crime scene notes can be called in to evidence. Because of this, be careful what you include in your notes or how you organize your notes. There are two methods accepted by the court. If you decide to keep your notes, you must have ALL your notes from all your cases. If courts call the case into question and you have all of your notes, but the notes needed, the court will be very suspicious of you and may not allow your testimony.

The other method for organizing your notes is to destroy them after your report is complete. Again, you want to make sure all of your notes are destroyed after your report is filed.

Protecting Evidence

There are so many different types of evidence and many ways to collect that

evidence. Become familiar with the proper way to collect fingerprints, footprints, hairs and fibers, blood evidence, and the like. There are many good classes and books on the market about the subject. You must always follow proper collection and safety protocols.

It is absolutely critical to maintain chain of custody so that the evidence collected cannot be disputed by the defense. Know what type of evidence is placed into what kind of packaging. For example, biodegradable material should be placed in paper sacks, not plastic sacks. If a soda can is being collected for possible fingerprints, the fingerprints are biodegradable. This needs to be put in a paper sack. If you put the can into a plastic sack, the "sweat" from that material could ruin all chances of collecting the print.

Properly label all packages with the following information:

- Your name
- Date
- Case number
- Where found
- Suspect's name

Also initial and date the tape seams.

The evidence must be kept in a secure place like a police evidence locker to maintain proper chain of custody.

Interview and Interrogation

Ideally, after you have investigated the crime scene properly and interviewed the witnesses thoroughly, you are ready to interview your suspect. Safety must always be the officer's first consideration.

Pre-interview

You should have as many details about the crime as possible before you start the

interview. Knowing the suspect's criminal history will be a big advantage to you if you have access to that information as well. Decide where the interview will take place. Do you want the suspect at the police station for a video taped interview? Or, do you want to avoid a custodial interview? Will you have them sign a waiver of rights?

If possible, prepare your location so that you will be uninterrupted. Have two chairs facing each other, with no table in between. You can use the space between you and suspect to your advantage in the interrogation. Have the case file and any evidence that you want to question the suspect readily accessible. Also, have a notebook handy for note taking.

The first few minutes of the interview are the most important. It is critical that you develop a rapport with the suspect if you are going to get him to confess. You may not agree with his crime, but you at least must be able to empathize with him and make him feel like you understand and care. Offer the suspect a beverage and ask if there is anything that could make him feel more comfortable. Is the temperature too hot or cold? Appropriate humor is always a good ice breaker. Thank the suspect for agreeing to come down for taking the time out of their day to come down and assist by answering your questions. Explain why you asked them to come visit with you on this day.

Begin the interview with some very basic questions. The important part of this exercise is to obtain information, but more importantly, observe the person's body language. This will be critical in you evaluating what is normal body language for the suspect and what is not. It is the unusual body language that will indicate

the suspect's untruthfulness. Basic starting questions include:

- Name
- Age
- Date of birth
- Place of birth
- Marital status
- Occupation
- Place of employment
- Business address and phone number
- Residential address and phone number
- Driver's license number

Ask the suspect to tell you what happened chronologically. Look for changes in body language to determine what information he may be leaving out or lying about. Try not to interrupt. If the suspect does not want to talk, start by asking open ended, non-judgmental questions. Once he completes his story, you may go back and ask clarifying questions.

We recommend asking these two questions:

1. Do you know who would do this to this horse?
2. Why would someone do this to an animal?

If the suspect names someone else in answer to the first question, it is usually a sign of guilt. In answering the second question, you may get an idea for his reasoning behind the abuse. For instance, he may say that someone wouldn't intentionally do it, but just didn't have the financial resources to care for the animal. Focus your questions on areas the suspect skipped over in his narration. If he is detailed about most of the story, then he leaves out large parts of another story, he is being deceptive or at least withholding. If he has been sitting back in the chair for

the whole story with his legs crossed, then uncrosses them and sits forward when you ask a difficult question, it is a sign of deception. Pay attention to these details along with what is said. Even if the suspect insists on lying to you, if you lock him into a story and later can disprove the story, it looks great in front of a jury. Of course, a confession is ideal.

There are many different interview and interrogation schools that teach proper interview and interrogation techniques. One good one is Reid Method of Interview and Interrogation (www.reid.com).

Once you are done with the interview, give the suspect a short break by leaving the room for a few minutes. This gives you time to decide your interrogation themes. Some examples of themes include:

- Being financially unable to care for the horse
- Having too many horses and not being able to keep up with the care
- Being very competitive, having to win the competition by training harder (i.e., put weights on horse's feet, neck)
- Facing an aging horse that's getting old (or maybe on the verge of death), put it out to pasture to die peacefully
- Inheriting an unwanted horse, just didn't know how to care for it properly

Interrogation

Your next step is to interrogate the suspect. Tell the suspect when you walk back in that you believe he has been untruthful to you (if you believe so). If he is being honest, expect a very strong denial. If he has been untruthful, the denial will be weak. From here, you do all the talking. Do not let the suspect speak. The

only words you want out of your suspect are a confession.

You go with a theme and build on that theme. For example, in a case with a financial theme, you'd say something like, "I understand things have been really hard on you financially lately with losing your job. It is perfectly understandable that you need to make some very hard choices. Do you feed your family or your horse? Most people in that situation would have to make the same decision that you made. I mean, you can't let your kids starve right?"

Watch the suspect's body language again. Is the suspect relating to your story, or are you going to have to move on to another theme? If he is, now is the time to ask him the question to give him a respectable way to explain the abusive behavior. Compare the respectable excuse of your theme to a vicious reason for the crime. "So, John, it was because you had to choose between feeding your horse and your kids that you chose not to feed your horse for the last two months, wasn't it, John? I just don't think it was because you are a heartless person who wants to watch animals suffer by starving to death. Which is it, John? Are you a father that chooses feeding his children over feeding his horse or a heartless person who enjoys the suffering of animals?"

Hopefully, at that point, your suspect chooses the first choice to save his dignity. Once the initial confession is made, ask for details of the crime. Most people at this point feel guilty and want to relieve their guilt and stress by being honest about the crime. Keep reinforcing that truthful behavior by telling the suspect he is doing the right thing. A suspect will sometimes ask for confirmation that he is not a bad

person. Keep reassuring him that you understand the situation he was in and that you only want what is best for all parties involved. Do not negotiate any deals with the suspect without prior district attorney approval.

Report Writing and Courtroom Preparation

Accurate reports make or break abuse and cruelty cases. Write your reports in a chronological narration of the who, what, when, where, why, and how of the case. Strive to make reports accurate, complete,

concise, clear, and logical. Work hard to ensure they contain only facts, not opinions. The complete report includes pictures, sketches, and all officer, witness, informant, and suspect statements. It should also contain the evidence and the chain of evidence in the case. Include all detailed veterinary and necropsy reports as well. See the American Humane Association's Operational Guide on Investigations for a more thorough discussion of report writing, courtroom preparation, and strategies.

Resource Guide

American Veterinary Medical Association
1931 North Meacham Road, Suite 100
Schaumburg, IL 60173-4360
847-925-8070

www.avma.org

American Horse Council
1616 H Street NW 7th Floor
Washington, DC 20006
202-296-4031

www.horsecouncil.org

American Horse Rider
www.AmericanHorseRider.com
www.Horses-and-Horse-Information.com

Acreage Equines
www.acreageequines.com/index.html

North American Riding for the
Handicapped Association, Inc.
PO Box 33150
Denver, Colorado 80233
800-369-RIDE
www.narha.org

Southern States Cooperative, Inc.
P.O. Box 26234
Richmond, VA 23260-6234

The Mane Points, Horse Resource Center
www.manepoints.com

The Horse:
Your Guide to Equine Health Care
PO Box 919003
Lexington, KY 40591-9003
www.thehorse.com

American Farrier's Association
4059 Iron Works Pkwy. Suite 1
Lexington, KY 40511
859-233-7411
Fax 859-231-7862
Email: Farriers@americanfarriers.org
www.americanfarriers.org/index.asp