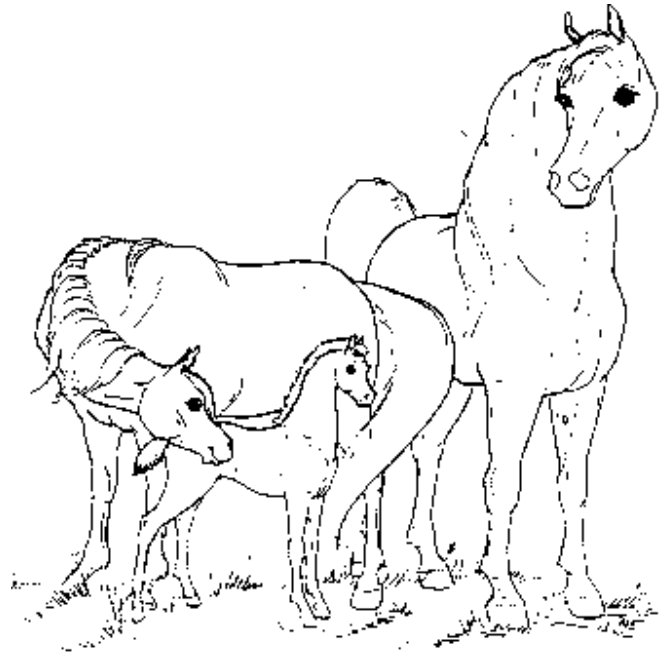


EQUINE RESOURCES

**Benton Co. Search and
Rescue Certification
Course**

**Presented By:
Benton Co. Sheriff's
Mounted Posse
Serving Benton Co. since 1946**



HISTORY OF THE HORSE

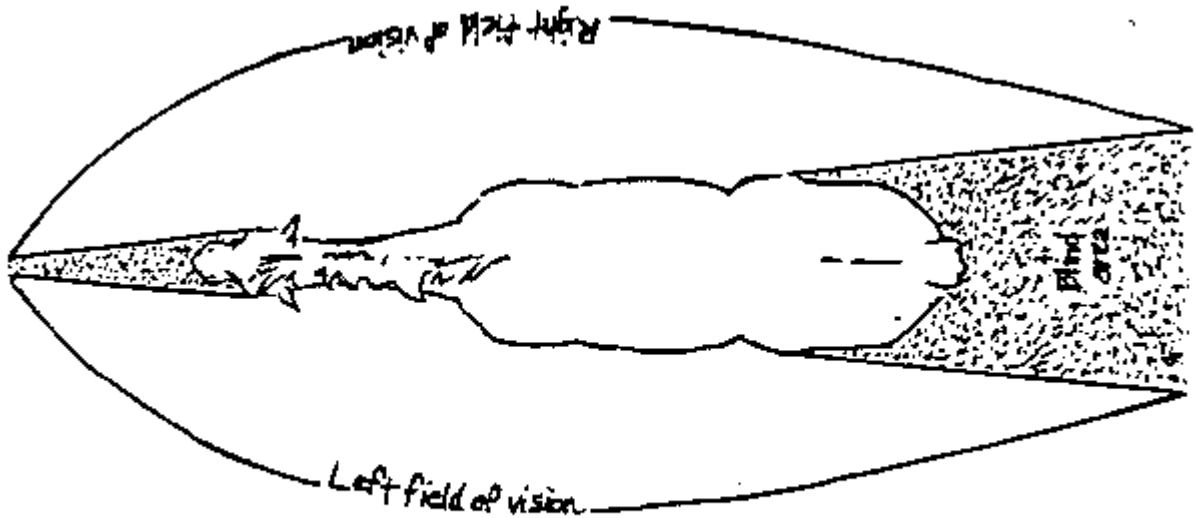
The horse has been around for 60 million years. The prehistoric horse was the size of a small dog and was prey for many meat eating animals. This prehistoric horse's only means of defense were it's senses and its ability to flee. This prehistoric animal is the reason the modern horse has many of his behaviors and traits.

VISION

Since a horse grazes with his head down, his eyes are positioned on the side of his head to give him a large field of view while still allowing him to graze. The horizontal placement of the pupil gives a horse a broad, lateral view. In the case of the horse, the priority is not clear vision, but rather the ability to scan the horizon for signs of predators.

Today's horse has poor eyesight when compared to many other animals. The position of his eye allows him to see in front, to the sides, and to the rear without having to turn his head. The horse can adjust his range of vision by raising and lowering his head. He does, however, have a blind spot directly in front of him. In fact, he cannot see within three feet of the front of his head. He is also blind directly to the rear because of his body.

It is for this reason we should try not to approach the horse directly from the rear or front. He should be approached if at all possible from the sides.



Typical Horse Field of Vision

Seeing such a broad view has advantages and disadvantages. Having wide-spaced eyes means most of what the horse sees is through only the eye on each side of its head. Most of what a horse sees is one-dimensional. Because of this, the horse has little depth perception. Horses judge depth by the size of the object and by how that object changes in size when it becomes closer or farther away. Only when the horse is looking straight ahead with both eyes can he see with the same type of binocular vision we humans have.

Objects that are not moving are very difficult for the horse to distinguish, but they may startle at the slightest movement when that object blows in the breeze and catches their attention. Changing from monocular to binocular vision can also bring surprises in that objects may seem to “jump” when the type and/or field of vision changes.

Another feature of that broad field of view is the horse’s lack of focusing ability. Experts believe that equine eyes have one focus level at all distances. Most mammals focus by changing the shape of the lens in the eye, but horses are very limited in their ability to do this. And the closer the object, the harder it is to focus. Horses and many other animals have one advantage over humans when it comes to vision. That is a highly reflective area in the back of the eye called tapetum which greatly enhances their night vision. That is what causes the bright green glow you see when shining a light into an animal’s eyes at night or when taking a photograph.

MEMORY

Horses are said to have one of the best memories in the animal kingdom. If the horse experiences a bad situation he will remember that location, person, circumstance, etc., with particular clarity.

For example, if he had a bad experience with a water hose and a stream of water while being bathed, he will remember that experience in the future and he will be very hard to bathe or to even get near a water hose. His reaction can then set up a dangerous situation as he tries to fight or flee. Now, hours must be spent training the horse that baths, water and hoses will not hurt him by making each future experience as comfortable and calm as possible. Some horses may never get over a bad experience and continue to present unsafe situations.

SENSATIONS

The horse has several very sensitive areas on his body. The most sensitive of these are the mouth, shoulders, feet, neck and flank. This is because of the numerous nerve endings near the surface of his skin in these areas. Horses may also be “sensitive” in other locations as a result of a learned response, or memory. For example, if a horse remembers a bad experience getting his ears clipped, he will not want you to touch them and may overreact when you attempt to do so.

SOCIAL STRUCTURE

Horses are very social animals and they are herd animals. They also have a very set social order, there is always a “king of the hill”. If that king goes in one direction, the entire herd will go in that direction. They feel most comfortable in a group.

Because of our increasingly urban/suburban lifestyle, many horses no longer have access to pastures or farms. Horses are increasingly kept in large stable complexes that offer everything the horse and rider could want - except pastures and a herd environment. Horses that are routinely kept stalled still have their herd instincts, but do not have an established herd society. This is why some horse may kick or bite at each other when first meeting. But a loose horse will almost always come to another horse, Mother Nature still tells them that to survive, they must stay together.

SMELL

The horse has a very highly developed sense of smell. Horses use smell to identify people, animals and unknown objects and to constantly assess the world around them. They smell to locate food, each other, and predators before they get too

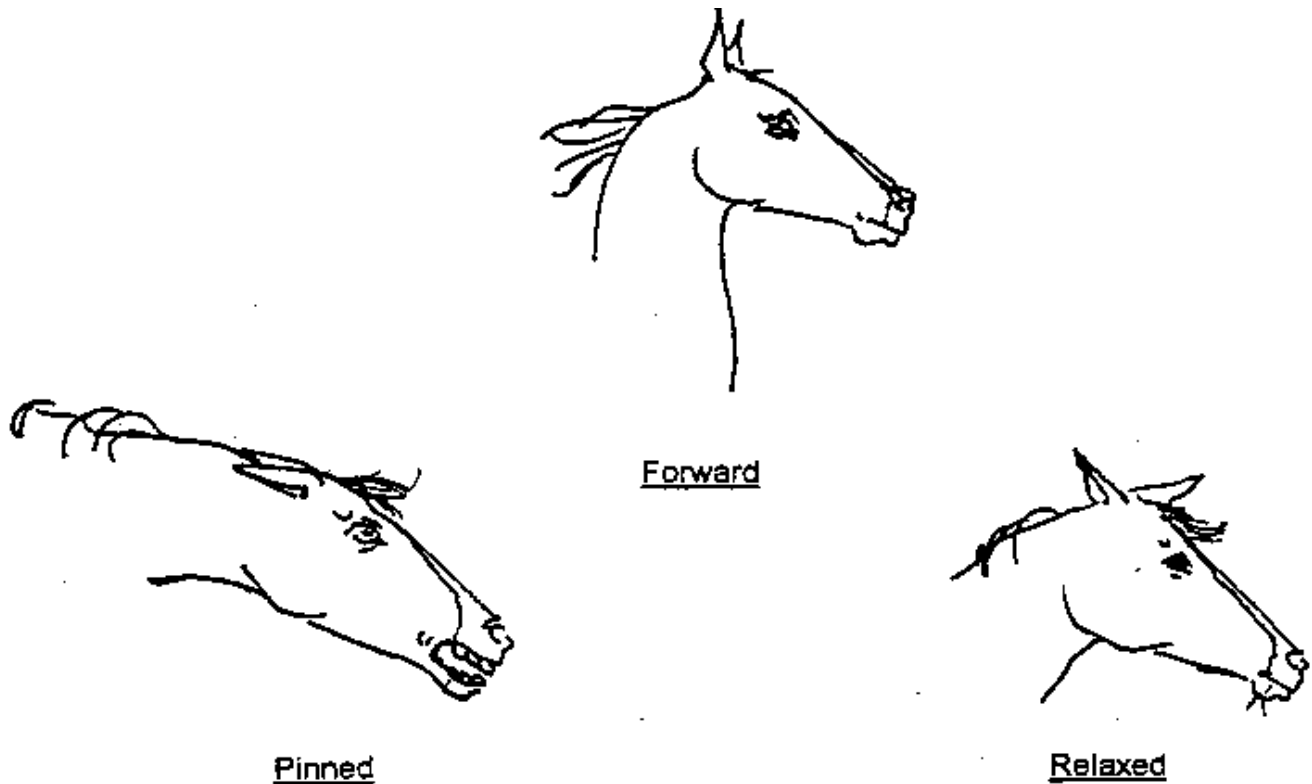
close. Certain scents can bring on a panic response.

HEARING

Horses also have highly developed hearing. Like with all their other senses, they use it to detect danger. Bad experiences where certain sounds were involved can bring on a fight or flight reaction. Likewise, a soft, calming voice also reminds the horse that we will protect them. A horse's ears are constantly in motion, trying to hear and interpret everything around them.

Ears

A quick check of a horse's ears is one of the best ways to read his mood. You may avoid injury and trouble if you take a couple seconds to do so.



If his ears are pinned back against his head, he is mad. This is usually backed-up by the look in his eyes which tells you that you are dealing with a very upset and angry animal. Use this as a serious caution that trouble is ahead. This animal is more likely to strike with its front feet, wheel around and kick you with a hind foot, or bite you.

When a horse's ears are forward, he is showing interest. What is going on around him will be unusual and puzzling and he will be assessing the situation with his different view point.

If the ears are at "half-mast", he is probably calm and content.

TAIL

The tail is another good barometer of the horse's feelings. If his tail is clamped down tight between his legs, the horse is probably experiencing strong fear. A fearful animal is likely to be unpredictable when it seeks a way to get away from what is making it afraid. A horse with a clamped down tail is potentially thinking about kicking or striking before it flees.

When the tail is up away from his body, it usually means the horse is alert or curious about something. Think of many of the photographs you have seen on calendars and the like. Their eyes are bright, their ears are forward, and their tails are up and away (flagged) from the body. A "flagged" tail also usually indicates a willingness to cooperate and learn. It can also, however, mean excitement, which can make him more difficult to handle or prone to spook.



Clamped



Flagged



Lashing

When the tail is relaxed, so is the horse.

When a horse is seriously lashing his tail, one of two things is probably happening: The horse is angry and should be approached and handled with extreme caution. If this is the case, there will probably have been other signals from the eyes and ears to back up your reading of extreme agitation.

Another cause for the lashing tail is the presence of biting insects bothering the horse. This is an instance where you must take a couple of seconds to survey the scene and weigh the lashing tail with the other signals the horse is giving you.

METHODS OF DEFENSE

The first defense mechanism of the horse is to freeze. This makes him less noticeable to a predator. Not all horses freeze first. Next would be to flee. Prior to running a horse may sidestep, spin, rear or jump and it's these actions that are likely to get someone hurt. Remember that in prehistoric times the horse was the size of a small dog. His only recourse at that time was to run away as fast as he could. Again, the instincts have carried over through all of these years of development and domestication. They will often overreact to the littlest things, sometimes explosively.

Wild horses, when frightened, will run as fast as they can 1 - 2 miles before stopping and looking to see if what scared them is still coming after them. This instinct is still in today's domesticated horse to a degree.

A horse which panics and tries to run while tied can bust ropes and halters, move or even pull a horse trailer over on top of themselves. They have even been known to break their own neck. Do not approach a horse in this state! Your safety must come first! A panicked horse does not know or care that you want to help. Wait until they have stopped fighting. Usually, it stops fighting, stays tied and all is OK. Sometimes you will end up trying to catch a loose horse or cutting the rope to let loose a horse that has slipped and gone down. (Attach another rope to the halter first if it can be done safely.) If they get loose, get out of their way! Never corner a panicked horse.

When frightened or angered, kicking is usually the next line of defense. Stallions, or male horses, tend to rear up and kick at you with their front legs. Mares, or females, are more likely to swing their rear towards you and kick out with their rear legs. Horses are also quick and agile at "cow kicking" or kicking you with their rear legs to the side. You should interpret this to mean that no matter what his tendencies are, if he wants to kick you he probably will. Remember the horses "blind spots" directly in front of and behind.

Their last line of defense is biting. Horses can bite. Very hard and very large. But this is not an ordinary reaction. The majority of animals will first attempt to flee. If they cannot do so, then they may resort to the other methods such as

kicking and biting.

SAFETY AND HANDLING

Remember the horse's vision capabilities. Never sneak up behind the horse where he cannot see who or what is approaching. And try not to come at him directly from the front. Approach him from the shoulder and talk to him. If the horse wants to smell your hand, offer it to him in a closed fist. Stroke his neck and shoulder. Read his mood through his ears, go slow and give him time to check you out. If you are wearing a backpack, he may really be confused. To him you are a totally new predator until proven otherwise.

If circumstances require you to approach the horse from the back or directly from the front, make sure you talk to him calmly as you approach to let him know that you are there.

When standing next to the horse, stand up close to the body. The reason being if he should suddenly turn you will simply be pushed off of his body without injury. If you stand away from his body, you will be hit by the horse and then thrown, possibly knocked to the ground and trampled thus getting a double blow and possible serious injury.

TO CATCH A HORSE

Find the owner or another horse person as soon as possible!

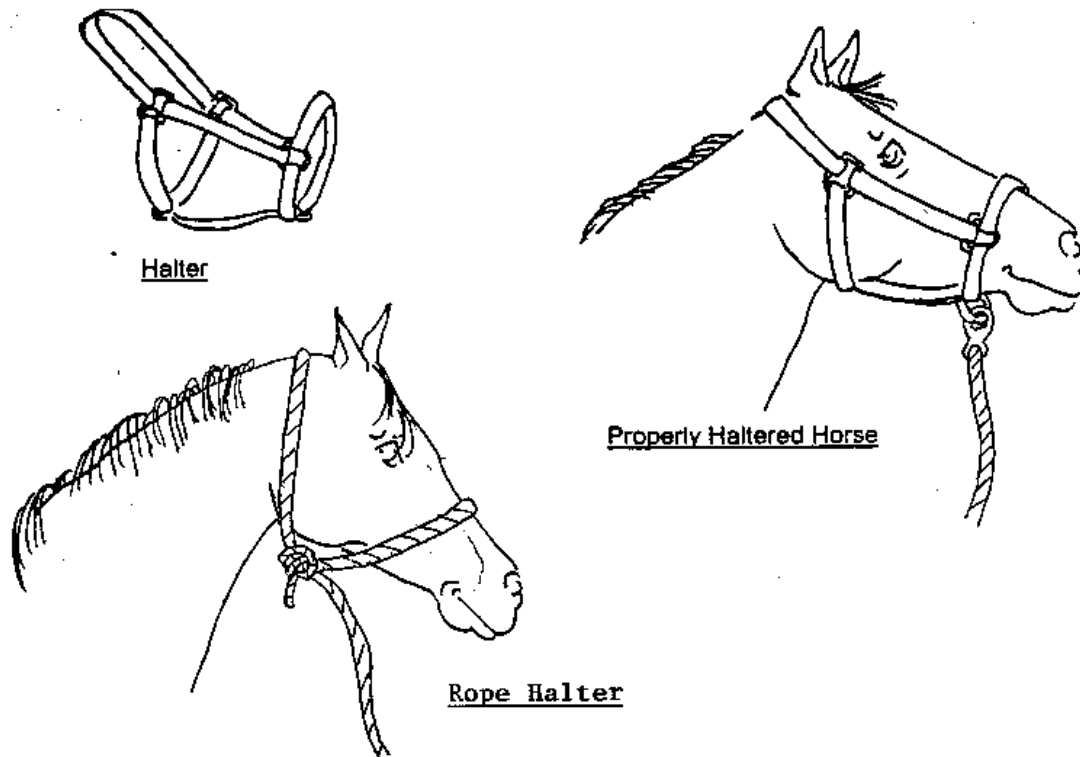
Turn off radios and shed "scary" clothing such as backpacks. If possible, use people to keep horse in a safe area away from roads, etc. Horses will usually not go far from other horses and will almost always come to another horse. Show confidence and speak in a calm and even voice. Food is very important to a horse. Use grass, apples and even a few pebbles in a bucket works especially well (simulates grain at feeding time!)

Tell the horse to "come" or "whoa".

HALTERING

Do not try to catch a horse by chasing it around with a halter visible in your hand. Remember his blind spots and do not approach the horse from the front to halter it either. It's best to approach him from the side and then place the crownpiece or lead rope over his neck to hold him in place. Horses know that once the halter goes on, the work begins, so they may not just stand willingly in place to allow you to place the halter on them.

Once the crownpiece is over the neck, open the rest of the halter up and move it over the horse's nose. Then buckle the halter so there is some slack at the horse's chin and throat. The noseband should be about two inches beneath the horse's cheek. You do not want it too tight, or so loose that it slides around and gets hung up on objects, or so loose that it allows him to slip his head out of the halter. You should be able to slip two fingers in under the noseband.



EMERGENCY HALTER

If the horse is wearing a halter, you can just attach a lead rope to it and lead the animal to where you want it. If the animal does not have a halter, you will have to improvise. We have all seen cowboys on TV who just throw a rope around the horse's neck and lead him to wherever they want. Well, that only works on TV. The horse is far stronger than any man and will easily pull away from you and break free. And by just using a rope around the horse's neck, you could cause injury to his jaw and neck. When a horse is in pain, he will focus his attention on reducing the cause of that pain, and not on following you around.

An emergency halter can be made out of a soft piece of rope. Put one end of the rope around the horse's neck just behind the ears (you will need enough rope on the end to tie two knots and go around the nose, approx. 3 feet). Tie a non-slip knot such as a bowline, go around the nose back to the first knot and tie another non-slip

knot. You should now have a halter with an attached lead rope (or tie on more rope if needed.) **DO NOT TIE** a horse with this set up. The rope can be very harsh on their face. Someone will have to hold the horse until another halter can be found or the old one fixed.

LEADING A HORSE

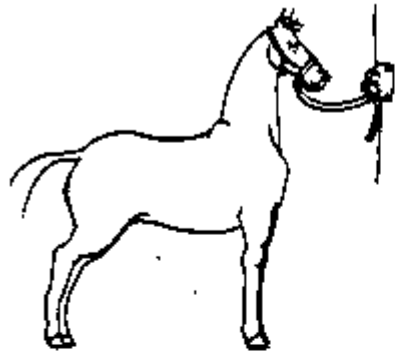
When leading the horse, try to lead him while standing on his left side. Horses are normally led and worked from the left side, so that is the stance they will feel most comfortable with. When we lead a horse, we are normally at their left neck. Don't be scared or intimidated if the horse moves up to that position when you are walking it. That is the normal leading position and he is only doing what he has been trained to do.

TYING A HORSE

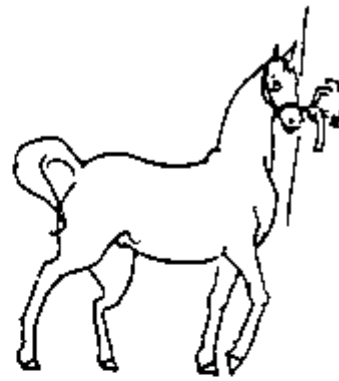
When tying a horse up to an object, look at the area you plan on tying it to. Is it free of hazards? Allow the horse a chance to turn around to check out the area before you tie him. Remember his instincts and try to work with them and not against them.

Also remember a horse's superior strength. **NEVER** tie a horse to something light or flimsy, as this is an invitation for disaster. What you tie him to **MUST** be strong and solid. Even if the horse is cooperating, in any situation, events can quickly transpire to startle or even panic a horse. If he is well tied, you still have some control of the situation.

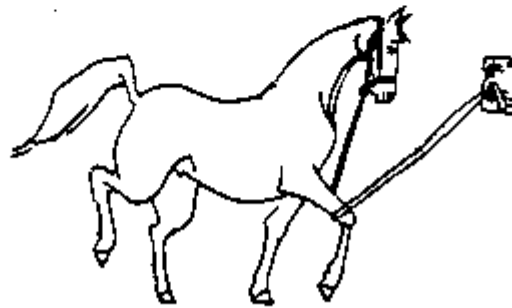
You should attach the lead rope to the bottom ring of the halter's noseband. Never tie a horse that is wearing a bridle as this will injure its mouth. (The main difference between a halter and a bridle is that a bridle places a bit in the horse's mouth and a halter does not.) Tie the loose end around a strong object that will not move when the horse pulls away from it.



Properly Tied



Tied Too Close



Tied Too Loose – Disaster!

For a knot, use a quick-release knot such as a slipknot. This knot is strong, yet may be undone with a quick pull by a human. The rope should be tied at the level of the horse's nose when it is at standing position. The length of the tying rope is important. Tie the rope long enough so the horse can move his head. If he cannot, he may panic and try to get loose. If the rope is too long, the horse may tangle his feet in the rope or trip on it, potentially injuring both of you. The rope you begin with should be about six to eight feet long, so you will have approximately two to three feet in length from the horse's halter to where you have tied him.

When the horse is tied up, try not to walk in front of the animal. If the horse is startled by your sudden presence, he may panic and struggle to get loose. Remember the horse's blind spots.

If you cannot tie a slip or quick release knot, **DO NOT TIE** the horse, have someone hang on to it. If a horse pulls back hard while tied and the knot cannot be undone, put another lead rope on the horse and cut the other rope loose, using your

knife as far from the horse as possible. A horse tied on a tether line will usually be tied with a non-slide knot which cannot be quickly and easily untied. It will probably have to be cut also.

Before putting a horse in a pasture or fenced in area make sure fence is in good repair and all gates are closed. It is best to lead a horse around a strange pasture before turning them loose. Do not put strange horses together if at all possible. They will probably fight. Never tie a horse in a pasture with other horses that are loose.

GET A HORSE PERSON ON THE SCENE AS SOON AS POSSIBLE!

They will be the best judge of what to do with the animal. Call a large animal vet as soon as possible if you suspect or see a moderate to major injury. The owner will thank you.

Restraint is used to keep the horse from walking, (or running) away from you. There are several rules of thumb when restraining a horse:

1. Use only the amount of restraint needed to get the job done.
2. Expect the unexpected.
3. Don't let either you or the animal get hurt.

There are basic methods you can use to restrain and control a horse in the field. The simplest method, of course, is to have the horse in a halter with a lead rope attached. But there are times when even this is not enough. The following methods are easy to apply by anyone without much difficulty.

MANE AND NOSE

Facing the horse, place one hand on its neck behind the ears and the other hand over the horse's nose above the nostrils. Two people, one on each side can be used on a more wiggly horse. This simulates the pressure points of a halter. Some horses can even be moved around. But some will figure out rather quickly that they can leave if they want to, so get a halter on soon.

LEG LIFT (Use on a very calm horse only)

You can lift a horse's front leg to prevent him from kicking or trying to run away on you. If the animal decides to lean on you, just tilt slightly back towards him, giving in to his weight. He will usually balance himself back up because he fears falling.

RESTRAINING THE DOWNED HORSE

There are frequently times when a horse is lying down on the ground and you wish him to remain there - either while you are freeing him, or perhaps while another person is working on his injuries.

In order for a horse to get up, he must swing his head up first, and then bring his front legs forward to put his hooves on the ground. From this position, he can stand up. In order to prevent him from standing, kneel behind his neck. Place one of your hands near his head, or, if the horse will let you on his head. Do not use excessive force — the horse will fight heavy restraints. Use only the force needed to keep his head down.

If the horse begins to struggle, you can take your other hand and hold the front shoulder down. A horse will also sometimes calm down if you cover his eyes with a cloth, jacket, or something similar. Be careful not to obstruct his breathing. If the horse is not struggling to get up, but you wish to be sure he doesn't try to do so, kneel behind him, and gently stroke his neck. When he attempts to get up, gently push his head back down. Continue stroking him and talking to him in a calm voice. This will help calm him, and keep you in the position to prevent him from getting up in case he attempts to do so.

One word of caution - you should never attempt to down a standing horse unless a veterinarian is present.

MEDICAL

First and foremost, find a horse person or the owner. The next item would be to get a vet on the way.

Moderate to major injuries are going to require medical attention, the sooner the better. Get the vet's cell phone number in case the condition changes and you need to update him while he's on his way.

This section of basic emergency medical information is included so you will be able to recognize signs and symptoms of illness. Basic treatment information is also provided so that you will know how to provide basic first aid care until the veterinarian arrives on the scene. The illnesses and the appropriate first aid and care are about the same as for humans, so you as the rescuer should be able to assist if needed.

VITAL SIGNS OF THE HORSE

PULSE

The normal pulse of a horse should be 40 to 44 beats per minute. A standing pulse over 60 is an indication of a problem. A horse can be excited under stress and exertion just like a human can. It is natural that a horse which has just been run out of a burning barn will have an increased pulse. It should, however, return to normal within a short period of time, usually approximately ten minutes.

If a horse's pulse suddenly elevates for no apparent reason, there may be other problems that should be treated so that you can prevent the horse from going into shock.

To Take a Horse's Pulse - Stand facing the left side of his head. If someone else is not holding the horse's halter for you, place your left hand on the halter to restrain the horse. The horse has an artery that runs along the inside of the jaw bone. With your right hand, gently place your fingers so that they are to the inside of the horse's jaw bone by his cheek and feel for the artery. By gently squeezing the artery against the jaw bone, you can feel the pulse.

Another pulse location can be felt by holding your hand against the horse's rib cage, just behind the elbow. You should be able to feel the horse's heart beat at that point. If the horse is obese, a stethoscope may be needed.

The last area to check for a pulse is beneath his tail. Gently slide your hand around the top of the horse's tail until your finger can feel the pulse on the bottom of the tail. This method is not recommended if you have no previous horse experience, as some horses are very fussy about having their tails handled.

RESPIRATION RATE

The normal respiratory rate for the horse is from 8 to 16 breaths per minute. Rates under five or over 20 is an indication of trouble. Respirations will be easy to count as you can simply watch the horse's rib cage and chest rise and fall. You may also feel and hear his breathing if you station yourself at the animals nostrils. If you watch his nostrils, be careful not to count "sniffing" as breathing.

TRIAGE

Triage for the horse is close to that for a human. Start at the head and work your way down the body toward the tail. As with humans, the closer to the head major trauma occurs, the more serious it is. A concussion to the head is much more serious than a bruise to the thigh. Trauma to the lungs is much more severe than a

cut to the rump, etc.

HORSES IN SAR

HORSES IN CAMP

Horses kept in camp will be tethered (tied onto a rope stretched between horse trailers or trees), held in an electric fence corral or hobbled (two front feet strapped together). The tether lines can be high so the horses can pass under or at chest level to keep them on one side. Hobbles allow the horse to move short distances to graze. The owner will make sure the horse has food and water, blankets if it's cold, etc.

Let the owner or another horse person know before you start a chain saw, erect a plastic awning etc. The sudden noise could startle the horse and one scared horse usually gets the others going also. Use caution when passing by with vehicles, propane or gas lanterns, or anything that could be construed as a threat. When coming around a trailer or tent, speak so you don't all of a sudden appear. Tie down flapping or blowing items. If in doubt, ask the owner or another experienced person. Move slowly and watch the horse for reaction. If they look stressed, back off, turn it off, or go another way.

Ask the owner first before you pet or feed a horse.

Approach a horse from the side or front, never from the rear

Talk calmly and offer your hand for the horse to smell

Pet the horse on the neck or shoulder, avoid the face and ears

Avoid sudden movements and noises

Keep children and dogs under control

Remember your safety comes first

Trail Etiquette

Horses on a trail have the right of way for several reasons. Hikers and bikers cause less damage by stepping off to the side of the trail than a horse would. Horses are more likely to startle from things approaching them than they are from passing them as they stand still. Speak to the rider so the horse knows that monster with the big hump on its back is really a human with a backpack. Step off the trail to the downhill side. Horses tend to be afraid of things above them (cougars) and if they do bolt, they tend to go uphill in hopes the predator can't keep up.

If biking and you overtake a horse and rider, call out and wait for the rider to

motion for you to go ahead and pass. Go slow and speak calmly. It may be best to get off and walk the bike past, especially in close quarters.

If you are driving a vehicle and you come upon a horse and rider coming towards you, stop and wait until they pass, unless the rider motions you it is safe for you to drive on by. If you come up behind a horse and rider, **DO NOT HONK!!** If they do not notice you, roll down your window and call out only as loud as you need to. Wait for the rider to stop the horse and motion you past. Drive slowly, give them plenty of space and watch the horse and rider in case the horse becomes scared. If that happens, stop and let the rider regain control and motion to you what to do next. The rider will usually dismount.

IN GENERAL

The biggest risk in being around horses occurs when they are frightened. A horse is a ½ ton of muscle that is fast, strong and has a mind of it's own (that makes a lot of decisions based purely on instinct). It is against the horse's nature for self preservation to be tied up, ridden, and held in small enclosed areas. Through training, the horse learns to accept the owner as the lead horse in the herd and a trust is formed. The owner in return will spend much time (cleaning stalls, tack and the horse, fixing fences, maintaining equipment, training, exercising and hauling hay/feed) and money (price of the horse, truck, trailer, tack and equipment, training, feed and hay, stable fees, vet visits and farrier).

The horse owner wants other people to appreciate his animal and enjoy it also. But they are also very aware of the safety concerns. Your safety around horses should always come first. They are beautiful, loving and gentle. They are also quick, strong and unpredictable. If you have any questions, ask a horse owner. They love to talk about these beautiful creatures!