

Equine Emergencies & Triage: What to do While You're Waiting for the Vet



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First Know What is Normal

- Did he finish his feed?
- Did he drink any water today?
- Is he passing a normal amount of manure?
- Is this an abnormal time to lie down?
- Is he walking abnormally?
- Did he come in with the herd?
- Is he showing signs of pain?
- Vital parameters



Physical Examination

- Demeanor - Bright, Dull, Depressed, Painful?
- Eating, Drinking, Urinating, Passing manure?
- Mucous membranes pink & moist
- Capillary refill time < 2 seconds
- Heart Rate 28 - 44 beats/minute
- Respiration 8 - 16 breaths/minute
- Temperature 98F - 101F
- Gut sounds - present
- Digital pulses - not bounding



Physical Exam: Mucous Membranes

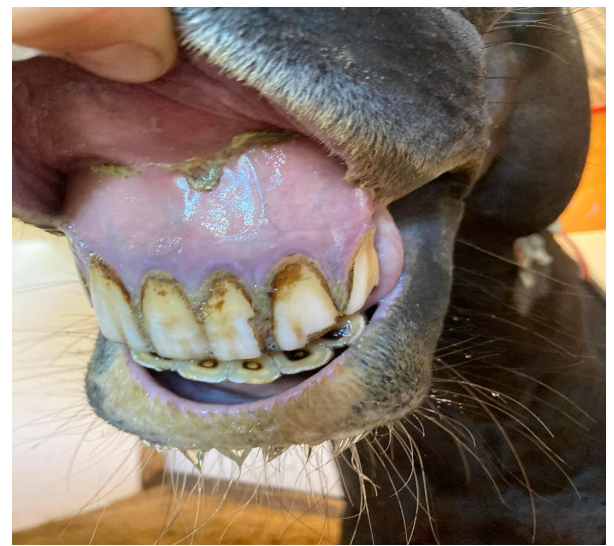
These give clues about the horse's internal health, circulation & hydration.

SHOULD BE:

- Healthy pink
- Moist
- Shiny
- Slippery

SHOULD NOT BE:

- Red, Blue or White
- Dry
- Tacky
- Sticky



Physical Exam: Capillary Refill Time (CRT)

Prolonged CRT may indicate shock or dehydration.

HOW TO:

Lift the upper lip, push on the gums above an upper tooth with your thumb for 1-2 seconds.

Remove your thumb and count how long it takes for the white spot to “pink up” again

SHOULD BE:

- Less than 2 seconds

SHOULD NOT BE:

- Greater than 2 seconds



Physical Exam: Heart Rate (HR)

An elevated heart rate is an indicator of pain and/or compromised perfusion.

HOW TO:

Place a stethoscope, your hand, or an ear just behind the horse's LEFT elbow on the rib cage.

Count the number of beats over one minute.

“Lub-Dub” = 1 beat

SHOULD BE:

- 28 - 44 beats/minute

SHOULD NOT BE:

- Greater than 48 beats/minute



Physical Exam: Respiratory Rate (RR)

Elevated RR can indicate difficulty moving air (eg. nasal obstruction), respiratory distress (eg. asthma), poor oxygenation (eg. blood loss), fever, pain, anaphylaxis, and shock.

HOW TO:

Watch the horse's ribcage or flank. Count the number of breaths over one minute.

SHOULD BE:

- 8 - 16 breaths/minute

SHOULD NOT BE:

- Greater than 16 breaths/minute



Physical Exam: Temperature

A low temperature can indicate shock or hypothermia. A fever indicates systemic inflammation or infection.

HOW TO:

Stand to the side of the horse's rump, close to its body.

Insert digital or mercury thermometer well into the horse's anus.

Ensure thermometer is against the rectal wall and not in the center of a manure ball.

SHOULD BE:

- 98F - 101F

SHOULD NOT BE:

- Less than 98F
- Greater than 101F



Physical Exam: Gut Sounds (Borborygmi)

The absence of gut sounds can indicate a non-motile gastrointestinal tract. Excessive gut sounds can indicate hypermotility, gas, or impending diarrhea.

HOW TO:

Using a stethoscope or just your ear, listen to the top and bottom of the horse's flank on both sides for 5 seconds per quadrant.

SHOULD BE:

- Adequate, regular gut sounds

SHOULD NOT BE:

- Silent
- Hypermotile or excessively liquidy



Physical Exam: Digital Pulses

An elevated digital pulse indicates inflammation in the foot, often from a foot abscess or laminitis.

HOW TO:

Place your thumb and index finger over the neurovascular bundle on each side of the fetlock. Use light pressure to feel for a pulse.

SHOULD BE:

- Difficult to feel

SHOULD NOT BE:

- Bounding or easy to feel



Types of Equine Emergencies

- Colic
- Choke
- Punctures & Lacerations
- Eye Injuries
- Fevers
- Respiratory Distress
- Down & Stuck Horses
- Allergic Reactions
- Non-Weight Bearing Lameness
- Lymphangitis & Cellulitis
- Laminitis
- Foaling Emergencies
- Acute Neurological Conditions



Colic

- #1 Cause of Death in Horses
- General term for Abdominal Pain
- Ranges from mild to severe
- Signs include:
 - Off feed
 - Lying down
 - Stretching out as if to urinate
 - Pawing
 - Looking at flank
 - Curling upper lip (Flehmen response)
 - Kicking at belly
 - Rolling
 - Getting Up & Going Down
 - Curling the tail



Types of Colic

Medical vs. Surgical

- Gas
- Spasmodic
- Large Colon Impaction
- Anterior Enteritis
- Gastric Ulcer Syndrome
- Left Dorsal Displacement
- Right Dorsal Displacement
- Small Colon Impaction
- Cecal Impaction
- Strangulating Lipoma of Small Intestine
- Large Colon Torsion or Volvulus
- Epiploic Foramen Entrapment
- Sand Colic
- Parasitic
- And many more!



Colic

Do This:

- Remove all feed.
- Get vitals and temperature at minimum.
- CALL YOUR VET
- *We'll likely advise giving ½ body weight dose of Banamine.
- Walk the horse if you safely can.
- Ensure your trailer is hooked up.
- Take a deep breath.

Don't Do This:

- Wait and see what happens.
- Keep feeding the horse, even if he seems better.
- Give a full dose of Banamine without speaking to your vet first.
- Assume that if he's passed manure, he's fine.
- Attempt to give an enema or anything by mouth other than what the vet instructs you to give.
- Panic.

Esophageal Obstruction - Choke

- Occurs when feed material gets stuck in the horse's esophagus, not trachea.
- Happens when a horse eats dry feed too fast.
- Can be due to a solid feed object eg. apple, carrot, haycube
- May be associated with poor dentition.
- Signs of choke:
 - Horse stretching his neck out
 - Feed material coming from nostrils
 - Copious saliva from nostrils
 - Horse acting anxious, possibly trying to go down
 - Sometimes a gurgling sound is present



Esophageal Obstruction - Choke

Do This:

- Remove all feed.
- CALL THE VET
- Massage the horse's left jugular furrow downward.
- Syringe 1 - 3 60cc syringes of warm water into his mouth.
- Keep the horse quiet and relaxed if possible.

Don't Do This:

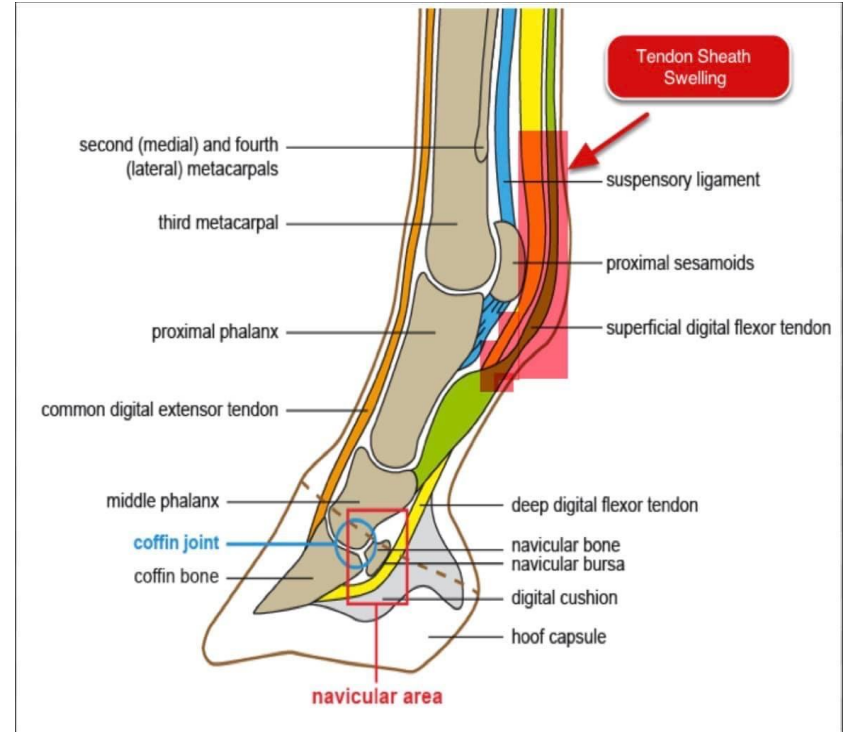
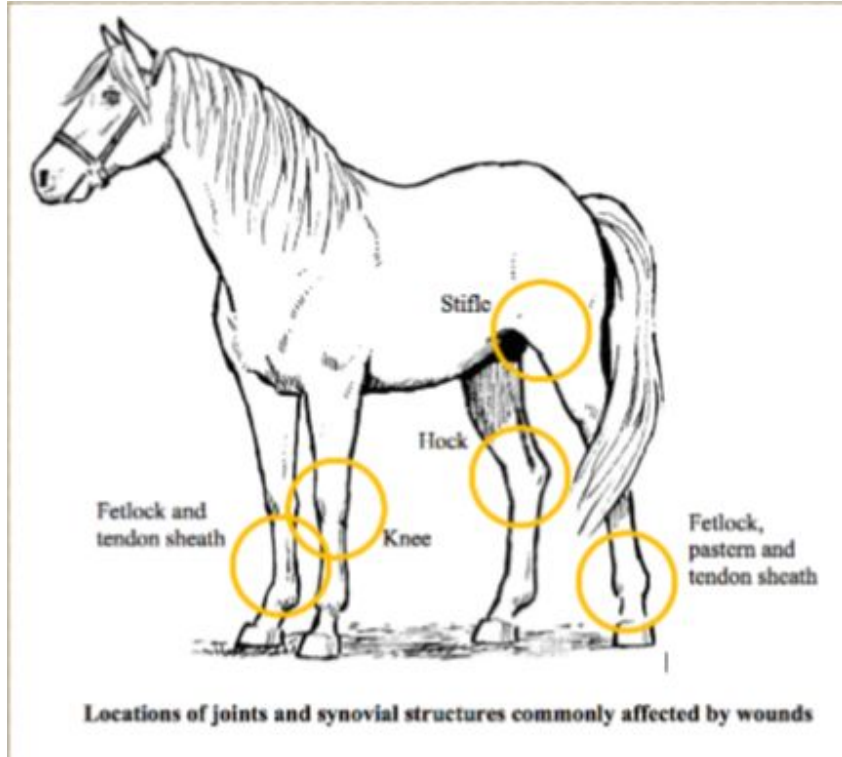
- Keep feeding the horse in hopes it will push the obstruction down.
- Try to syringe oral medications or oil into the horse's mouth.
- Put a hose down the horse's throat.
- Ignore it and hope it will go away.
- Panic.

Lacerations & Punctures

- Most are not life-threatening but should be seen in a timely manner to prevent infection and allow for a primary closure.
- Location matters!
- Wounds over synovial structures (eg. joints & tendon sheaths) must be seen ASAP to prevent sepsis.



Lacerations & Puncture Wounds - Location Matters



Lacerations & Puncture Wounds

DO THIS:

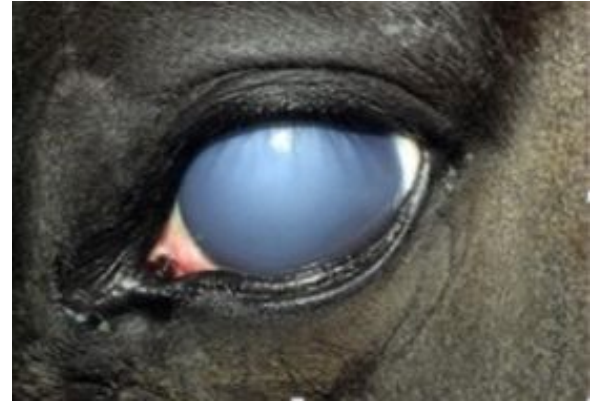
- Call the vet.
- Send a photo if you're unsure if it requires a visit.
- Clip the hair around the wound if possible. Avoid getting hair in the wound itself.
- Clean the wound with betadine or chlorhexidine scrub.
- Rinse the wound with saline or cold-hose.
- Control any significant hemorrhage.
- Apply a snug pressure wrap as follows:
 - Non-stick Telfa pad
 - Sheet cotton wrap
 - Rolled gauze
 - Vet Wrap +/- Elastikon
- If the blood seeps through the first bandage, do not remove it. Apply a second bandage over the first.
- Improvise as needed - eg. maxi pads
- Keep the horse stalled & quiet.
- Give NSAIDs if directed by your vet.

DON'T DO THIS:

- Apply a wound cream or spray before the vet arrives.
- Keep the horse turned out in the muddy paddock with its laceration while you wait.
- Ignore a 'minor' wound over a synovial structure.
- Start the horse on left over antibiotics from the last horse.
- Call late in the day >12 hours after it happened.
- Scrub or disrupt a clot.
- Apply a tourniquet.
- Cut the flap off.
- Panic! Remember that a 1200 lb horse can lose about 2 gallons of blood before we start to worry.

Eye Injuries

- All eye injuries are serious.
- Primary causes for eye pain are corneal ulcers & uveitis.
- Signs of eye pain include:
 - Downward lash position
 - Squinting
 - Tearing
 - Change in color (blue, red, white)



Eye Injuries

DO THIS:

- Call the vet.
- Administer a full dose of Banamine (or Equioxx)
- Flush the eye with saline only if you see a piece of debris in the eye.
- Keep the horse in a dark stall.
- Prevent further self-trauma to the eye by keeping the horse on cross-ties or by using a hard-cupped fly mask.

DON'T DO THIS:

- Ignore it “because he probably got a little dust in his eye.”
- Wait a few days to see if it gets better on its own.
- Send the vet a photo of the eye from 10 feet away.
- Apply topical medications before speaking to your vet.
- Put NeopolyDEX or any steroid ointment in an eye before a corneal ulcer has been ruled out.

Fevers

- The #1 clue that your horse has a fever is that they are off feed.
- A temperature over 101.5F is considered a fever.
- Fevers are the body's way of killing an infectious organism.
- The goal is to keep the fever down so that the horse will continue to support himself.
- Fevers can be due to infection or inflammation.
- A horse's base temperature will go up after exercise or on hot days, but should come down quickly when cooled down.



Fevers

DO THIS:

- Do a complete physical exam.
- Administer a full dose of Banamine.
- Remove any blankets on the horse.
- Sponge or cold-hose the horse (weather dependent).
- Put a fan on the horse (weather dependent).
- Ice his feet (laminitis prevention)
- Call the vet.

DON'T DO THIS:

- Give Banamine before checking his temperature.
- Make the horse walk or exercise.
- Give more than one dose of Banamine prior to speaking to the vet.
- Leave out important history such as recent travel, vaccination status, new horses on the farm, recent coughing, etc.

Respiratory Distress

Causes include:

- Equine Asthma
- Nasal Edema secondary to an allergic reaction
- Pleuropneumonia
- Mechanical Obstruction (eg. severe arytenoid chondritis)
- Snake Bite



Respiratory Distress

DO THIS:

- Do a physical exam.
- Call the vet.
- Provide good natural airflow - open space, not near stored hay, end stall, etc.
- Remove horse's hay.
- Give rescue therapy per vet's instructions (eg. Dexamethasone, Ventipulmin, Inhalers, Nebulizers, etc.)
- Give antihistamines (eg. Zyrtec, Benadryl) if vet suspects allergic reaction.
- Physically hold open horse's nostrils if occluded.

DON'T DO THIS:

- Give medications before speaking to the vet.
- Put the horse in stall adjacent or under hay storage.
- Exercise the horse.
- Feed the horse hay.
- Blow the aisle.
- Assume the horse is fine because he 'always has trouble breathing.'

Down & Stuck Horses

Causes include:

- Bad choices
- Ice, Snow, Mud, Ponds, Trenches
- Orthopedic Pain, especially in older horses



Down & Stuck Horses: The Forward Assist

- This technique allows you to pull the horse forward using his trunk safely instead of his head, neck or limbs.
- Ideally use fire hose or other LONG, STRONG ropes.
- Lay the rope over the horse's shoulders and floss the lower half under his neck.
- Feed both free ends of the rope up and between the front limbs.
- Pull straight forward from the chest.
- Backward Assist is the same except using the hind end and feeding the rope between the back legs. Take caution around the horse's penis or udder.



Down & Stuck Horses: Bad Positioning

- Sometimes you will need to flip the horse over to the opposite side if it's been on one side for a long time or if you can't access it in the position it's in.
- To flip a horse, attach long ropes with a half-hitch to the pastern and above fetlocks of the down legs. Bend the horse's legs fully before trying to flip him.
- You'll need multiple strong people.
- Protect the horse's head. An adult life jacket works well.



Down & Stuck Horses: Difficulty Rising

- For old, arthritis horses, give a full dose of Banamine.
- These may have a neurological cause.
- Position them for success, with plenty of room up front to swing their heads.
- Encourage them, **STRONGLY**, with whips if necessary.
- If making an attempt to rise, hold the base of their tail and pull straight up to the ceiling.
- Once they are up, let them be still and get their balance.



Down & Stuck Horses

DO THIS:

- Assess the situation
- Gather some strong friends
- Gather long, strong ropes if necessary
- Call the vet.
- Give a full dose of Banamine.
- Provide traction with sand or shavings.
- Potentially flip the horse, use the forward or backward assist to reposition them.
- Assist their hind end by pulling upward on the base of their tail.
- Protect their head.
- Give them space to swing their head and neck forward.
- Once up, give them time and warm them up. If not colicky, offer them food and water.

DON'T DO THIS:

- Call every fire department in the state before calling the vet.
- Call the news crews before calling the vet.
- Pull the horse by his legs, head or neck.
- Allow the horse to smash his head.
- Ignore his eyes while dragging him across the ground.
- Keep the stall door open and allow him to get stuck in the halfway in the aisle.
- Get hurt.

Allergic Reactions

- Common seasonally, often from insects, but can be from environmental allergens, shavings, fly sprays, etc.
- Rarely life-threatening, but can become severe, so should be seen on an urgent basis.



Allergic Reactions

DO THIS:

- Call the vet.
- Give rescue medications if the vet directs you to (eg. steroids, antihistamines)
- Hose the horse off to remove contact allergens (weather permitting)
- Attempt to identify the cause of the reaction (new shavings, new fly spray, recent vaccine, etc.)

DON'T DO THIS:

- Give Dexamethasone tabs that you had left over from another horse for days at random intervals and random dosages without talking to your vet.
- Continue to expose the horse to whatever set off the hypersensitivity reaction.

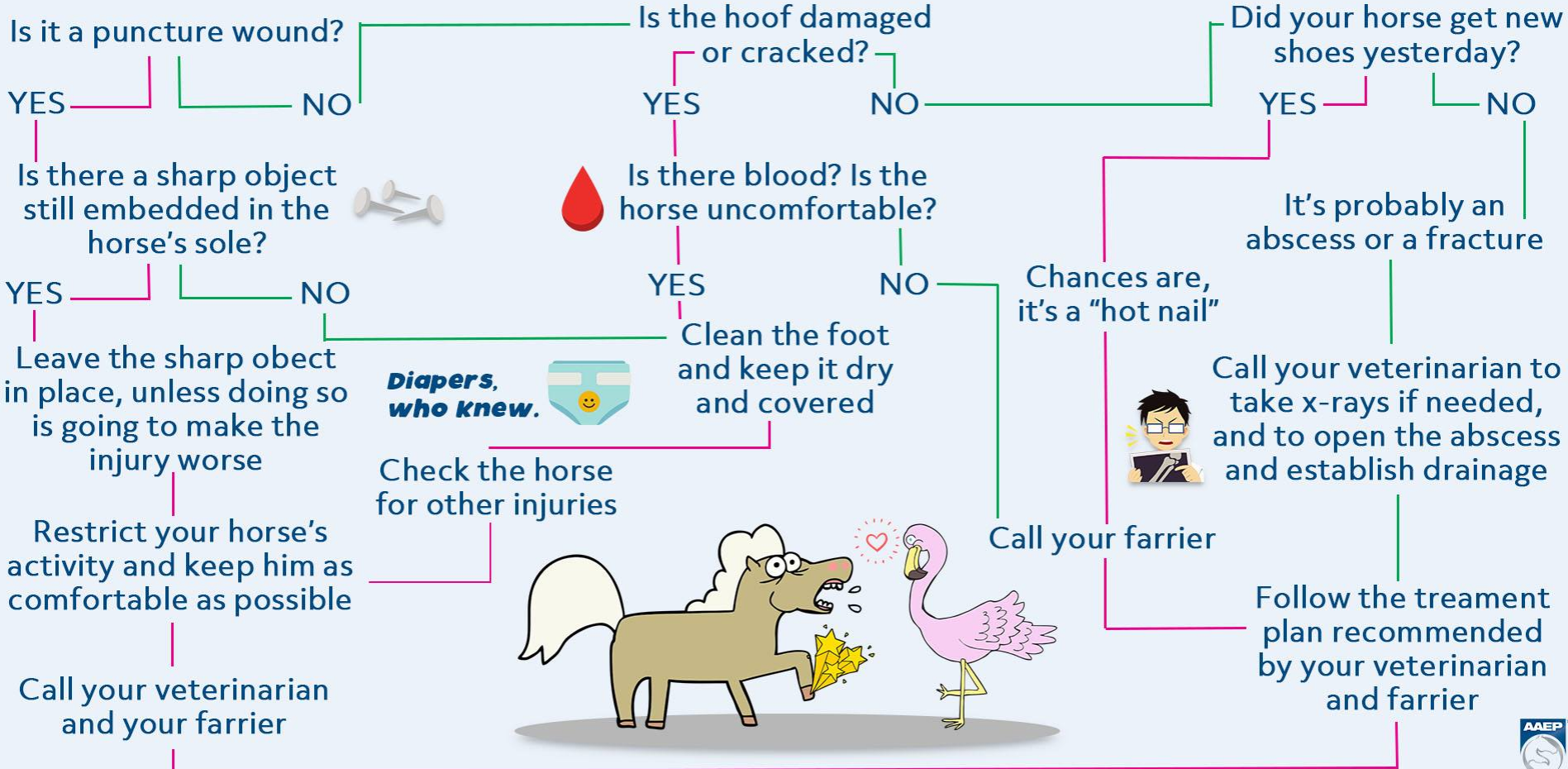
Non-Weight Bearing Lameness

Causes include:

- Subsolar Foot Abscess 98%
- Hot Nail
- Fracture
- Street Nail/Sole Penetrating Foreign Body
- Subsolar Bruise
- Severe Soft Tissue Injury
- Nerve Damage



“MY HORSE IS SUDDENLY THREE-LEGGED LAME”



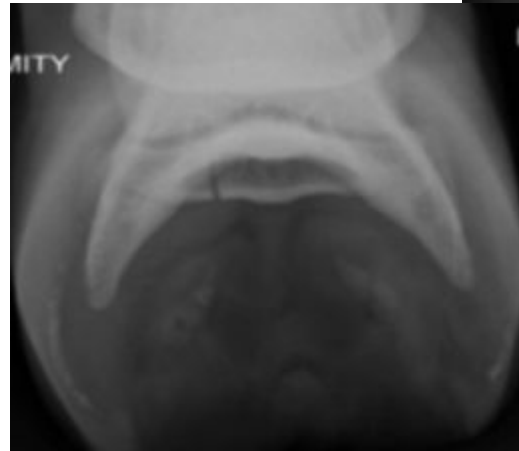
Non-Weight Bearing Lameness: Subsolar Abscess

- Bounding Digital Pulse
- +/- Warm Foot
- Associated with lower limb swelling
- Positive to Hoof Testers
- Often requires daily soaking in warm water & epsom salts
- You may apply a soak wrap or drawing agent (eg. Icthamol, Sugardyne, Animalintex pad).
- May drain on its own or require vet or farrier to open it.



Non-Weight Bearing Lameness: Fracture in the Foot

- May or may not have an elevated digital pulse
- Positive to hoof testers
- Require a radiograph to diagnose
- Often missed initially and assumed to be a foot abscess.
- Prognosis depends on location and nature of the fracture.



Non-Weight Bearing Lameness: Catastrophic Fractures

- These occur during exercise, after blunt force trauma (kick), or a fall.
- Horse is very painful, trembling, sweating profusely.
- Call the vet.
- Start icing/cold-hosing immediately.
- Give an NSAID.
- Keep horse as still as possible to avoid further displacement.
- Hook up the trailer if referral is an option.
- Often end in euthanasia.



Non-Weight Bearing Lameness: Street Nail

- If horse is suddenly lame, always check the foot!
- Prognosis heavily depends on location of the nail.
- Do NOT pull the nail out as it can be difficult to assess the injury once the nail is removed.
- Keep the horse quiet and wait for the vet.
- Can tape a thick towel to the bottom of the foot so that the horse does not push the nail further in.



Non-Weight Bearing Lameness

DO THIS:

- Always check the foot.
- Assess digital pulses.
- Consider the horse's recent history (recently shod, trauma, etc.)
- Use hoof testers to assess the horse's sole.
- Pull the shoe and start soaking, poulticing and wrapping the foot for a subsolar abscess.
- Call the vet for radiographs if you suspect a fracture.
- Resist the urge to pull a street nail. Wait for the vet!

DON'T DO THIS:

- Ignore the foot and suggest it's in the shoulder...or Lyme Disease.
- Move a horse with a suspected fracture.
- Pull a street nail or other subsolar foreign body before the vet arrives.
- Give long term NSAIDs to a suspected abscess.

Lymphangitis & Cellulitis

- Lymphangitis is inflammation of the lymphatic channels due to infectious or noninfectious causes.
- Cellulitis is inflammation of the deep dermis and subcutaneous tissues.
- Usually one diffusely swollen limb, “tree trunk appearance”
- Very painful to touch
- Often accompanied by a fever



Lymphangitis & Cellulitis

DO THIS:

- Perform full physical exam.
- Call the vet.
- Give full dose NSAIDs (Banamine, Bute or Equioxx) according to vet's recommendation.
- Start cold therapy - full ice wraps or cold-hosing.
- You may apply a support wrap after cold therapy.
- Walk the horse if he is comfortable enough to do so.

DON'T DO THIS:

- Have the leg covered in clay poultice before the vet arrives.
- Delay icing the limb.
- Forget to take the horse's temperature prior to giving NSAIDs.

Laminitis

- Inflammation & damage of the tissue between the hoof and the coffin bone.
- Causes include insulin dysregulation, grain overload, endotoxemia, etc.
- Horse presents with bounding digital pulses.
- Horse rocks back on his hind end.
- Difficulty turning.
- Difficulty lifting their feet.
- ‘Walking on eggshells’



Laminitis

DO THIS:

- Do a full physical exam.
- Call the vet.
- Start icing the horse's feet.
- Give a full dose of NSAIDs.
- Keep the horse in a deeply bedded stall with shavings or sand.
- Discontinue grain, grass, and treats until the cause is identified.
- Contact your farrier.

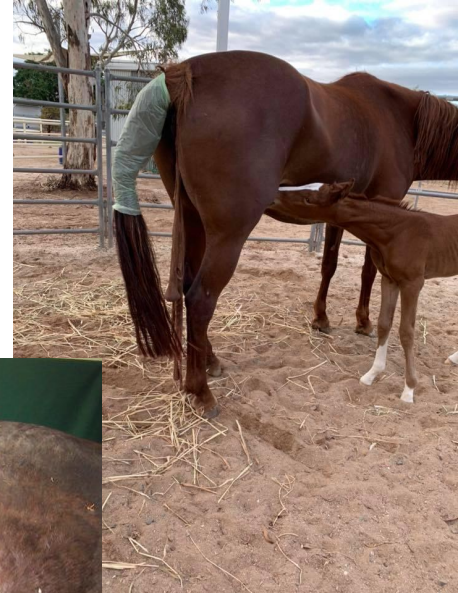
DON'T DO THIS:

- Continue to feed the horse grain, treats, and grass.
- Think it will go away on its own.
- Turn the horse out.

Foaling Emergencies

These include, but are not limited to:

- Red bag presentation - premature separation of the fetal membranes. Baby is not getting oxygen. If you see this, immediately rip or cut the red tissue.
- Dystocia - difficult labor, malposition of the foal. You can manually try to reposition simple ones, but they often require veterinary intervention ASAP.
- Retained placenta - if not passed within 3 hours after delivery.



Foaling Emergencies

DO THIS:

- Be prepared!
- Watch periparturient mares around the clock.
- Have your vet on speed dial.
- Cut a red bag if presented.
- Have your trailer hooked up and ready to go to a referral hospital.
- Know how to recognize when things are not normal.
- Tie up retained fetal membranes so the mare does not step on them.

DON'T DO THIS:

- Ignore your periparturient mare.
- Assume nature will take care of it.
- Miss the delivery.
- Foal out a mare without an emergency plan in place.
- Try to correct a dystocia yourself without speaking to the vet.
- Pull on retained fetal membranes.

Acute Neurological Disorders

Multiple causes that include:

- Infectious (eg. Rabies, EEE, WNV, EHM, EPM, Lyme, etc.)
- Structural (eg. spinal cord lesions, tumors, neck trauma, etc.)
- Present as ataxia, stumbling, falling down, circling, head tilt, etc.



Acute Neurological Disorders

DO THIS:

- Perform a physical exam, if you can do so safely.
- Call the vet.
- Give NSAIDs if directed by your vet.
- Make relevant vaccine status known.
- Stay safe.

DON'T DO THIS:

- Get hurt.
- Potentially expose yourself to Rabies.
- Lie about vaccine status.
- Leave out valuable history, such as recent trauma.

Less Common Other Stuff



First Aid Kit

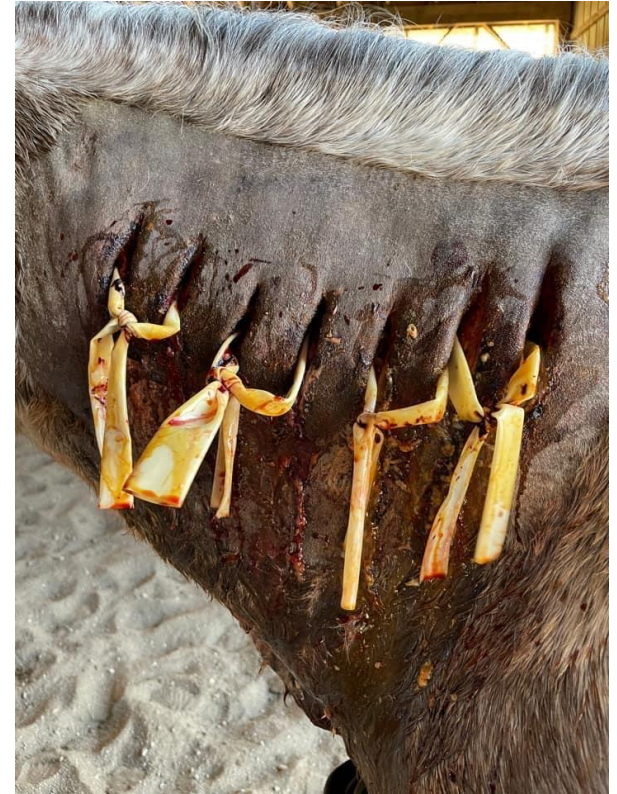
- Banamine
- Bute or Equioxx
- Clippers
- Bright Light
- Thermometer
- Stethoscope
- Betadine or Chlorhexidine Scrub
- Epsom Salts
- Gauze
- Saline Solution



- Bandaging Materials
 - Non-stick Telfa pads
 - Sheet Cotton
 - Rolled Gauze
 - Vetrap
 - Diapers
 - Duct Tape
- Poultice
 - Clay
 - Animalintex
- Scissors
- Gloves
- Triple Antibiotic Ointment or MediHoney

Banamine

- Potent NSAID for soft tissue pain.
- Takes 45 minutes to work.
- Can go orally or IV, but NEVER in the muscle.
- IM injection linked to clostridial myositis.
- Store at room temperature.



HOW HEALTHY IS YOUR VCPR?



Veterinarian - Client - Patient - Relationship

Cost of Equine Emergencies

- Farm Call Fee - covers the time vet (+/- technician) drives there, gas, car, car insurance, etc.
- Emergency Fee - to cover other calls being rescheduled, personal time away from family after hours, etc.
- Emergency Fee more expensive after normal business hours, gets more expensive later in the night.
- Cost of services, diagnostic equipment & goods.
- Average colic - \$400-\$600
- Average laceration - \$400 -\$1000



Equine Insurance



UNDERSTANDING EQUINE INSURANCE: TYPES OF COVERAGE

SPECIFIED PERILS

Includes any number of things such as lightning, fire or transportation

LOSS OF USE

Paid on a percentage basis if horse is permanently incapacitated for its intended use or purpose

MAJOR MEDICAL

Like health insurance, offsets costs of veterinary care

BREEDING INFERTILITY

Covers stallions or mares for reproductive failure

SURGICAL

Policies which cover specific procedures such as colic surgery

MORTALITY

Paid if the horse dies

Regardless of insurance coverage, the horse's welfare must always be at the forefront of any decisions being considered on its behalf.

For more information, contact your veterinarian.

How You Can Help Your Vet During an Emergency

- Have a valid VCPR
- When the vet returns the ER page, answer your phone.
- Know the address where the horse is located.
- Mark your driveway with a flashing light or reflective markers.
- Have your driveway plowed.
- Restrain your horse well.
- Provide warm water if possible.





Questions?

