

# Emergency Equine Husbandry 201 & 202

For want of a nail the shoe was lost
For want of a shoe the horse was lost
For want of a horse the rider was lost
For want of a rider the battle was lost
For want of a battle the Kingdom was lost
And all for the want of a nail!



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# **INTRODUCTION & REVIEW**

Welcome to the second portion of our Emergency Equine Husbandry training for ALERT. This is a continuation of EEH 101 and offers additional details and skills to assist during a response.

This two-part format that includes a practical section to each portion allows us to take a break and let all our learning to integrate and process a little. If I were training a horse, I might say this allows new learning to soak in while a horse has a good lick and chew.

### **ALERT Process**

During part 1 of EEH we considered a process of creation and growth that successful organizations engage. For ALERT, that process looks something like this:



If you didn't notice during part 1, please notice now, that the flow of the previous day's training day followed the flow of this process. We began first thing with an introduction and overview of the purpose of the training which was the **BLUE**. The classroom training was the **RED** Zone. Once we were on site for the practical, we entered the **ORANGE** doing stage. The debrief at the end of that training day was the **GREEN** zone.

In keeping with this process, let's spend just a bit more time in that **GREEN** evaluation zone before moving once again into the **BLUE** zone where we clarify our mission and purpose for

the second half of this training. And remember, we already have a great framework to use for evaluation:

### **Training Outcomes**

Beyond the information and basic skills we hope to equip you all with here today, there is a list of further reaching impacts and outcomes we're hoping to see in future responses.

- Equip ALERT volunteers with the basic skills and knowledge needed to be safe, effective, and efficient while assisting with the care of equines during a response.
- Improve the flow of communication, supervision, and support for ALERT volunteers who take on delegated husbandry tasks.
- Ensure that commanders are not required to train volunteers during a complex response.
- Continue to support morale and resiliency for the whole team.
- Ultimately improve the quality of care and the experiences of everyone involved in an emergency response where we have guests.

There's no point in setting goals just to leave them to collect dust without ever circling back to evaluate our work. Now is the time to go back through these outcomes and check in on our progress. Have we stayed on track so far? If not, where did we stray? Was it because our outcomes weren't doable? Did other priorities become evident during this process?

As we move into part 2, now is the time to adjust our plans to ensure we do in fact achieve these outcomes.

# **Key Competencies**

This is also a good time to remind everyone of other major themes of EEH 101:

- Self-awareness and arousal regulation
- Ability to stay focused on the task
- Commitment to the ALERT process

Whenever we are signed in with ALERT, our entire team's competency is being assessed. This is one our most important safety protocols. This is to ensure we set everyone up for success!

# Many Skills to Practice

And finally, before diving into some more new content, it's important to check in with the other tools and skills introduced in EEH 101. Did we all practice each of these during the practical? How did it go? How can we improve them or continue to grow? Are there any we need to revisit for better understanding?

- Communication
- Incident Command
- Documentation
- Compassion practice (MRI & 'It Depends')
- Arousal Gage (self-awareness)
- Dunning-Kruger Effect (self-assessment)

# 1.0 EQUINE BASICS

With respect to anatomy, the equine family all have the following features in common that are important to consider for ALERT's role in their emergency care.

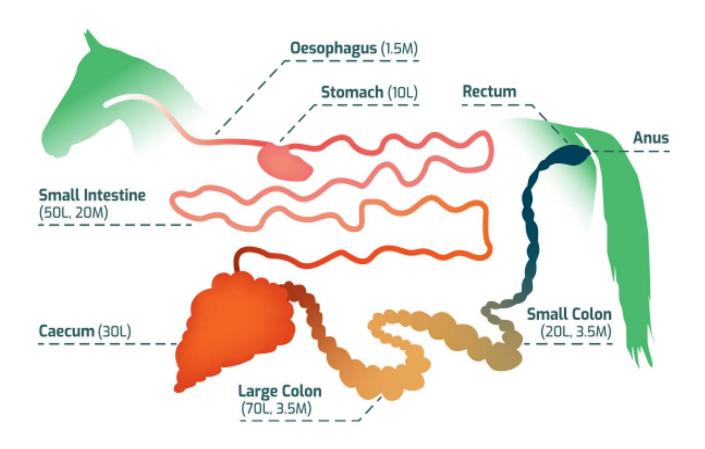
# **Basic Anatomy**

- Dentition
- Digestion
- Hooves

# 

A. Incisors B. Canine C. Wolf tooth D. Premolars

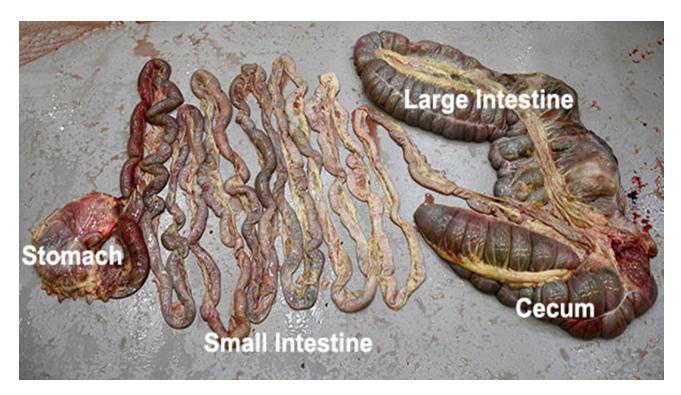
https://www.petmd.com/horse/horse-teeth-what-you-need-know



https://seahorsesupplements.co.nz/blogs/news/the-digestive-system

Notice how small the stomach is in relation to the capacity of the intestines and cecum. It's plain to see why it is so important to provide ample fiber and water fed over a longer period in small amounts. Consider also how restricted movement and tension could impact this digestive system. The photo below makes it really clear how impactions, or obstructions might occur.

While this organ system is highly specialized to work in harmony with an equine's natural habitat, it is also incredibly fragile when we can't readily provide that.

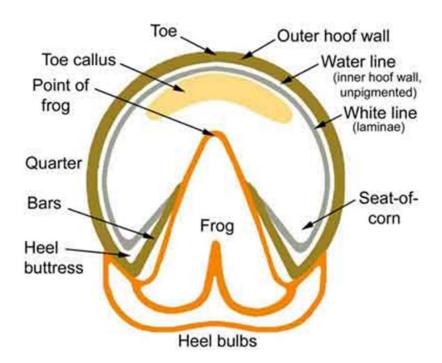


https://ohioline.osu.edu/factsheet/1022

Hooves are the third major part of a horse's anatomy that is important to note for emergency care. At the center of the hoof is the frog. Unlike the rest of the hoof, it's rubbery and somewhat pliable depending on the moisture content of the environment. During dry summer weather it can become quite firm and calloused. In wetter weather with muddy footing, it can also become quite squishy.

The frog's internal structure is quite vascular and can act like a pump. With every step a horse takes it can help move blood back up the leg toward the heart. Some may say that the hooves are a long way from the heart, so horses needed a second heart inside their hooves to support good circulation.

Now consider the impact restricted movement can have on a horse. Without this circulation helper, some horses will accumulate fluid in their lower limbs. This is why going for walks and even brief turn out periods are needed for our guests during an evacuation.



https://ohioline.osu.edu/factsheet/1022

# Similar Equines

The dentition, digestion, and hooves we just reviewed briefly, are shared by all members of the Equidae Family, therefore, similar approach to their basic care will work for the most part.

They are often vulnerable to the same parasites and diseases and can share many of the same medications and treatment practices.

Equidae: the taxonomic family of horses and related animals, including the extant horses, asses, and zebras, and many other species known only from fossils. The family evolved around 50 million years ago from a small, multi-toed ungulate into larger, single-toed animals.

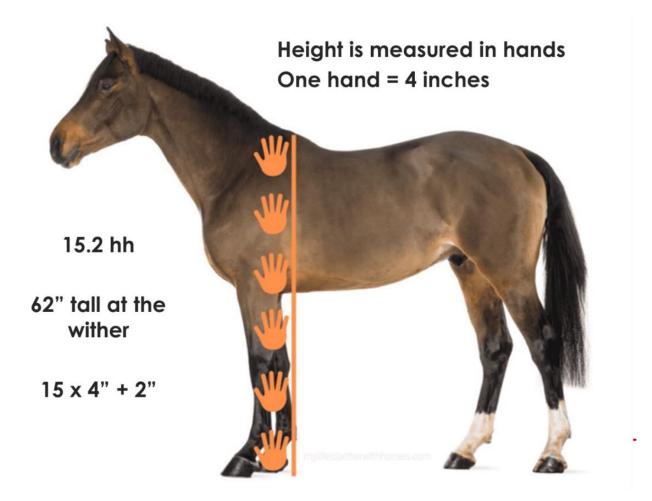


The term equid refers to any member of this family, including any equine.

"The equids, like other perissodactyls, are hindgut fermenters. They have evolved specialized teeth that cut and shear tough plant matter to accommodate their fibrous diet.[3] Their seemingly inefficient digestion strategy is a result of their size at the time of its evolution,[4] as they would have already had to be relatively large mammals to be supported on such a strategy."

https://en.wikipedia.org/wiki/Equidae

# Measuring Height in horses



https://www.mylifeisbetterwithhorses.com/how-do-you-measure-the-height-of-a-horse/

### **Breeds**

It's estimated that there are more than 400 distinguishable breeds of horse alive today. For ALERT purposes, it's not practical to invest time and effort into learning even a portion of those. Add the complication of crosses, and 'grade' designations and the process just becomes more and more frustrating and inaccurate.

Unless the breed of a horse is common and obvious, a more efficient approach is to talk about 'types' of horses. While less scientifically precise, this process is far more doable.

Some examples of highly recognizable breeds in our area include Fjord, Quarter Horse, Arabian, and Paint.

# Types of horse breeds:

Saddle horses, or light horses

- Quarter Horses
- Arabians
- Paints
- Morgans
- 'Grade' horses

### Draft or heavy horse

- Clydesdales
- Percherons
- Shires
- Belgians
- Halflingers

### Ponies & Mini Horses

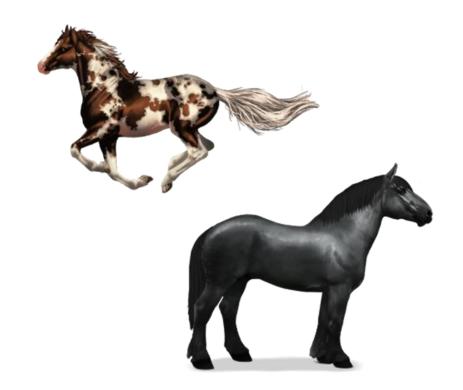
- Shetland
- Welsh
- Hackney

### Gaited Horses

- Tennessee Walker
- Paso Fino
- Icelandic

### Warmbloods

- Hanoverian
- Oldenburger
- Trakehner



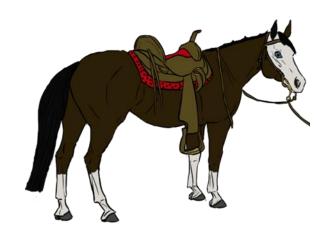


### **Other Features**

Some vocabulary can describe physical features, while others describe what discipline a horse is best suited to. It's not hard to get lost in the myriad of terms used to characterize equine but hopefully you now have access to enough basics to differentiate between Flicka and Fred at an intake facility.



Dappled



Stock Horse



Sport Horse



Flea Bitten

# 2.0 HOUSING & BASIC CARE

During the first day of our training, we discussed some of the pros and cons of some shelter and pen set-ups. So, for part 2, let's take a look at some set-ups we have used already along with what we hope to have available soon.

# **Likely ALERT set-ups**



### Shed row box stalls:

Many event facilities across the province have this type of housing available. The advantage is that horses rarely live on these sites year-round which means they're often available when a need arises. The challenge is that there is no freedom of movement and horses need to be taken for walks and/or turnout at least once each day for some exercise.

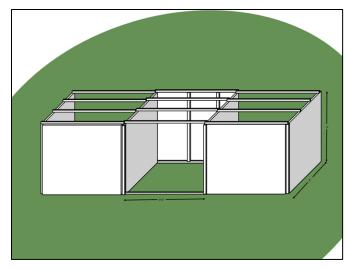
ALERT has often used portable fencing panels to extend the available space out the front of these stalls. Challenges there include safely securing the panels to the barn, many horses in close quarters with shared divider fences, where to put feed to avoid conflict through the fence, and challenging behaviours when moving in/out of pens to feed and clean.

### Run-in shed with small paddock:

This set up is ideal for emergency care. Equines in these paddocks may not need to be walked or turned out daily. There is also plenty of room for volunteers to go in the pen with the equine if they're well mannered to feed and clean. There is also enough space to reduce competitive behaviours across shared fences.



The downside to this set up is that it's rarely available in large numbers. ALERT was fortunate to have the use of these pens in Penticton last year. There were 5 of them open to us at the time.



### Modular three-sided shed grid:

This design is being proposed for ALERT use. Its materials are light, and it's meant to be built in flat panel sections that can be set up within a few hours on site where needed.

The dimensions were chosen to suit the length of our portable fencing panels so small pens using 4-6 panels each can be easily set up in a grid that can be secured firmly enough to put up with a bit of horsing around!

Tarps can be added for shade or rain if needed and eye bolts can help attach the fencing to the shed.

With this layout there is more room between animals so there are options as to which panel opens as the gate, where to hang a hay net so horses are less likely to get competitive over their feed, and when response season passes, they can be taken down. This gives us many more options as to where we can set up an intake facility for equines. Basically, any level open space out of harms way might do.



# **Safety Considerations**

- Direction of gate swing (inward might be safer for volunteers trying to enter with feed or wheelbarrows)
- Placement of feed
- Spacing with neighbours
- How fencing panels are attached to the shed
- Fencing panel stability
- Room enough for a handler to share space with the equine without risking injury

### **Group paddocks**

Grouping equines can only be allowed with animals from the same property who are already known to live well together. There can be no exceptions to this.

The factors that dictate this include biosecurity, food aggression, competition for space, social organization of the herd, and the risk to ALERT volunteers who need to enter the pan and care for those animals.



# **Daily Care Log**

As a reminder from part 1, every interaction an ALERT volunteer has with an animal needs to be documented on the daily log. The purpose of the log is to act as the main communication and documentation point for that animal while in ALERT care.

The ability to track an equines water intake, roughage consumption, anD manure output are just the minimum bits of information required. Please be sure and use the comments section to note anything odd **in addition to informing your commander**.

			Charles .	AL	.ERT				
			4	Dally Anir	nal Care	Log			THE REAL PROPERTY.
Name:		Type of Animal	P	EP Task#		Animal	Intake (	Date:	Animal Intake #:
pecial Inst	ructions for c	are:							
Date	Time	Gave Gave		Took for Walk	Play / Cuddled	Obse	prink	Your Initials	Comments
Date	Time	Gave Gave	Cleaned	Took for		7			Comments
Date		Gave Gave	Cleaned	Took for		7			Comments

# 3.0 FEEDING

As discussed in the first day of our training, providing feed in addition to ample roughage is often not required, nor prudent for most equines in our care. There are a few examples that may pop up depending on the many factors that can be in play for some equines, however. For example, some older horses cannot adequately chew hay and may need an alternative.

### **Supplements**



There is also one very important supplement that can become depleted quickly in equines that we may also need to consider. Salt needs to be made available and sometimes fed with an appealing ration if they are sweating due to summer heat or were stressed during transport and are now recovering.

Salt licks can be helpful but not all horses are able to take in enough salt this way. Loose salt or a mineral supplement may need to be added to catch them up.

### Concentrates

A concentrate is any feed that is low in fiber and high in energy. Some examples include oats, flax, rice bran, pelleted feeds that are high in fat or protein, sweet feeds, etc.

Adding concentrates to a horse's diet needs to be done thoughtfully, and usually gradually. The volume of concentrates also needs to be considered and should not take away from the roughage ration they need to prevent other digestive upsets. (2.5% of body weight).



There are products formulated to help with this problem if we need to add nutrients and energy without decreasing fiber volume.



If a horse cannot chew hay or needs to have salt or a medication added to a feed, better options include alfalfa pellets, hay cubes, and even beet pulp, which is more roughage than concentrate. It is high in simple carbohydrates however and does carry more energy. These options are great for hard keepers who have difficulty chewing. All these examples should be soaked until soft before feeding.

### Weeds

There are a few problematic weeds that grow in our region that we need to watch for. Both can cause illness if an equine consumes enough of them over time. With donated hay often coming in from suppliers we may not be familiar with, it's important that we keep our eyes open and know what to look for.



### **Mustard Weed:**

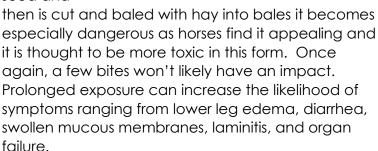
While most horses avoid this weed, some might mow through anything available. A few bites of this yellow flowered plant likely won't have an impact.

If this weed is mixed in with their roughage, they might not pick around it all. After a few feedings that contain mustard weed a horse may develop loose stool and even diarrhea. Abdominal cramps and extra gas may also form.

**Hoary Alyssum** is even more problematic. This innocent looking white flower is popping up in hay fields and pasture lands all over our region. Many horses will avoid this if tastier things are available. Others are not so discerning.



When this plant goes to seed and



Article regarding hoary alyssum in Penticton:

https://bcinvasives.ca/news/pretty-but-toxic-invasive-plant-harms-horses/#:~:text=Hoary%20alyssum%20(Berteroa%20incana)%20is,warning%20others%20about%20Hoary%20alyssum.

### **Body Condition**

Before ringing the alarm bell about a skinny horse, let's first consider what an ideal weight is for a horse. Veterinarians in particular use a scoring system to determine if a horse is an appropriate weight or not. In many cases we risk rushing to the conclusion that a horse may be 'skinny' before we've really considered all the criteria. We also tend to prefer horses who are on the heavy side of normal and judge them to be 'healthier' than a horse with a leaner look to them.

To really determine if a horse is an appropriate weight, we need to consider its activity level, age and stage in life, and any musculoskeletal limitations it may have.

For example, racehorses and endurance horses will often be quite lean and have a few ribs visible. They will also have considerable cardiovascular fitness and the right muscle mass and tone for their jobs. A horse with a parasite infestation might also have a few ribs showing along with a hanging pot belly, but their muscle mass might also be lacking, and they'll have an energy deficit.

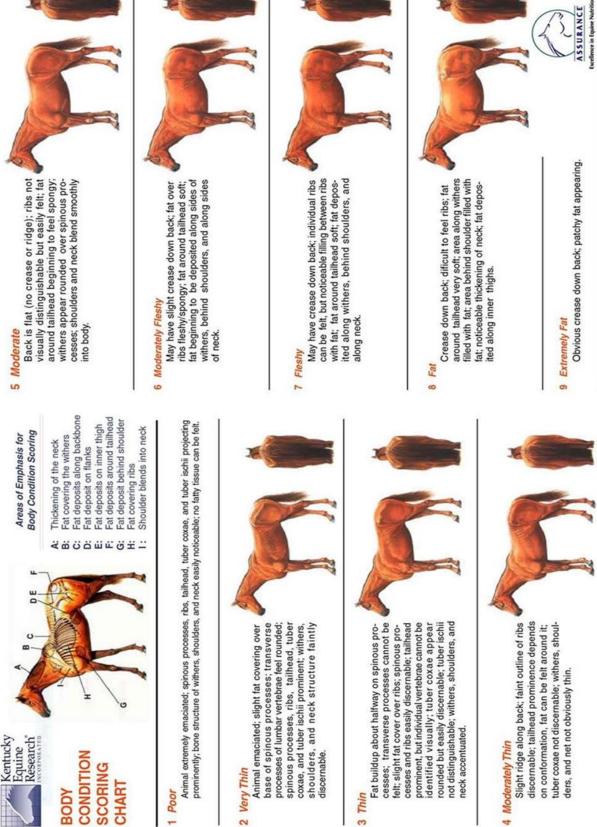
It really comes down to where a horse's body stores an ideal amount of body fat and how its muscle mass has developed as well.

This can be relevant to ALERT's care as it might be tempting to add concentrates and extra energy sources for a horse that appears 'skinny'. This change in diet during a stressful time might be a risk not worth taking if the horse is still within the range of normal.

At the same time, it might be tempting to restrict a horse who appears a little heavier than normal. Again, correcting a horse's weight quickly is a risk we don't need to take. Changes in body condition take time and a horse's feeding program should aim to make those changes slowly over several months. For the fat horse, ensuring they have a low and slow roughage with no added concentrates if often more than enough to correct their weight in the coming months and severe restrictions aren't usually necessary. In fact, they can be quite stressful.

Consider also, if the changes made during their stay with ALERT will be sustained once they return home. If there is a concern that an equine might be seriously under or overweight, leave it to your commander to determine how best to support that animal and their owner. Remember MRI and practice compassion. Our role is to ensure they first survive so they can go on into the future and someday thrive.





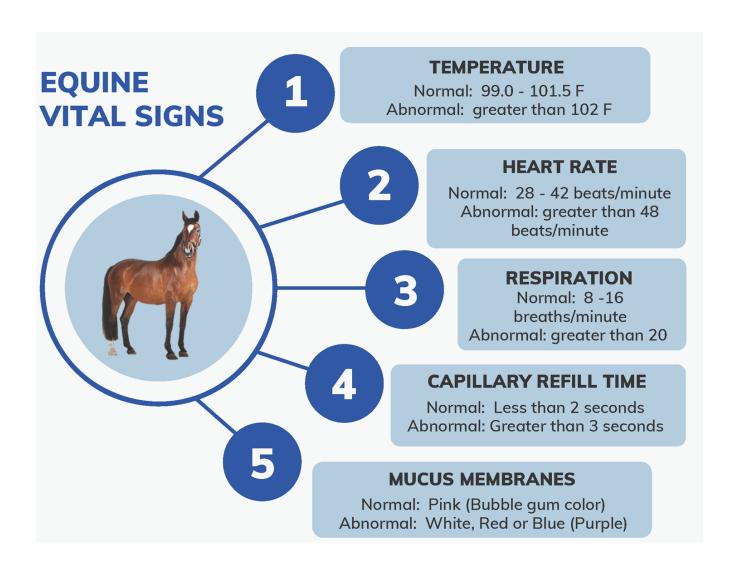
Bustrations by Japan Racing Asso

Hermeke et al., 1983

# 4.0 BASIC HEALTH CARE

While ALERT volunteers aren't usually hands on with health care during a response, there is a lot to keep an eye on so we can catch potential problems as they develop. It's our job to notice when an equine's survival might be threatened so we can call in appropriate support and care while keeping owners involved - or at least informed if they can't be available to meet all of their horse's basic needs as they arise.

# **Vital Signs**



# **Common injuries**

Can include the following:

- Cuts
- Rope burns
- Scrapes and abrasions
- Punctures
- Swellings on limbs
- Lumps and bumps

Not all injuries will require treatment. Generally, if not all layers of the skin were cut, a vet may not be needed. Minor swellings aren't usually an emergency and we often never do figure out what caused them to begin with. Lumps and bumps can be anything from a bug bite to a major allergic reaction. This is where ALERT volunteers and commanders will look to experienced horse people whom we trust for input in the decisions making.

There are a few that will definitely need a vet consult, however. This can be as simple as a text message with a picture these days so don't stress too much.

For example, punctures almost always need a vet to be involved. The risk of infection is fairly high, and antibiotics are usually indicated. Cuts that sliced through all layers of the dermis on legs below the elbow will require experienced care and possibly stitches.

Again, notify your commander immediately and take lots of pictures.

### Common illnesses

- Allergies
- Laboured breathing
- Stocking up
- Snotty noses
- Coughs
- Systemic infections

All of these need to be documented, monitored, and the owner should be made aware as a minimum. Some of these can become quite serious and may need a vet if they persist. For ALERT's purposes, it's wise to consult a vet immediately for most of these unless an experienced member is confident that the cough is just the dusty paddock for example. Snotty noses, and systemic infections require guarantine as a precaution.

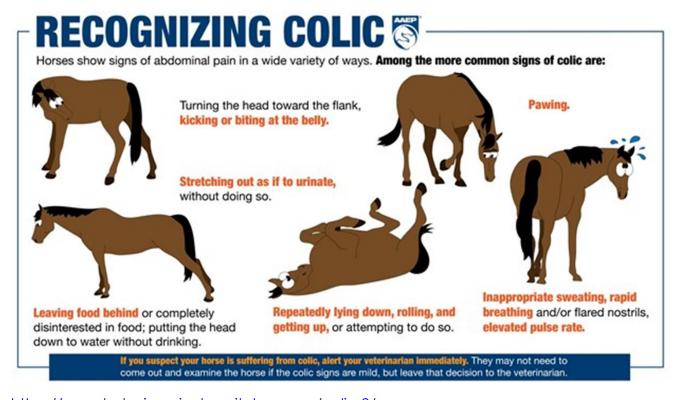
### Colic

Acute abdominal pain is almost always an emergency and warrants a call to the vet in every case. It can be life threatening within an hour or two if it doesn't begin to resolve easily.

Colic has a wide range of causes – some we can prevent, others we can minimize, and still others are unknown or out of our control. Emergency transport and housing is precisely one of those causes we try to minimize.

While a veterinarian may not attend, they will ask questions and need to know the horse's vital signs and baseline behaviour for the past few hours or even days. Here's where your daily care log is going to come in very handy.

First aid for colic may include walking the horse, removing its feed, or administering medication. Again, a vet must be consulted with, and next steps will be offered along with follow-up.



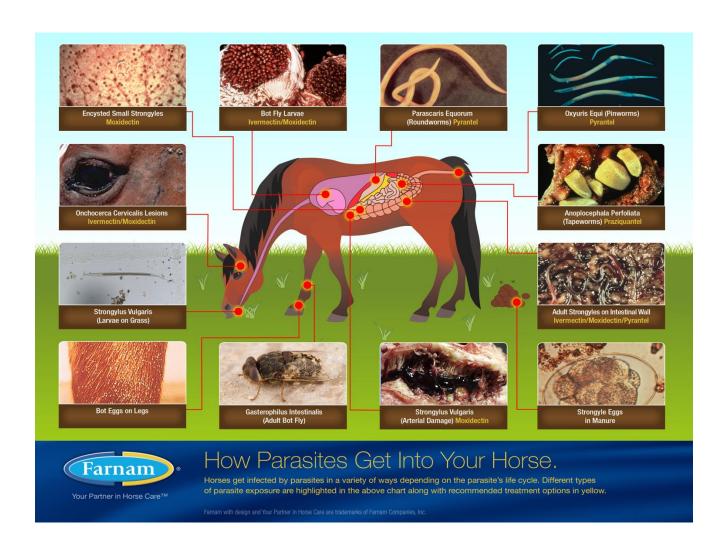
https://www.belvoirequinehospital.com.au/colic-2/

### **Parasites**

Parasites aren't of great concern for the short-term housing of equine's with ALERT unless the apparent parasite load might be excessive – in which case colic is a definite risk and a vet needs to be consulted. This will be a rare if ever sort of occurrence, however.

The only exceptions to this might be external parasites like ticks or like ring worm. A vet can help with a topical and a protocol appropriate for this case. Ring worm is also contagious and biosecurity practices will need to be put into place.

And finally, flies do often spread bacteria around and can cause minor eye infections. That can be treated with over-the-counter eye drops if we suspect this is the case.



### **Veterinary Care**

Should a need arise, your commander will call on a vet or horse expert within ALERT to coordinate veterinary care. When a vet is called this almost always constitutes an incident report or at least some extra documentation in addition to the daily care log.

If reachable the owner should always be informed. If they can attend, they should be present to speak with the vet and make care decisions.

As a volunteer, resist the urge to get involved unless your commander requests it. Vet visits can be stressful and emotional for owners and given that they are already experiencing one crisis, we need to be considerate of their needs in this instance as well. We often get attached to the animals we care for very quickly, but we must remember our place and hold space for the owners as they navigate very stressful circumstances.

### First Aid

ALERT volunteers are not permitted to conduct any sort of 1st aid on an equine currently unless a vet or expert is being consulted and offering direction. Again, your commander needs to make the call.

And just like with veterinary care, if any kind of intervention is required, an incident report needs to be completed.

# **Bio Security**

Out of an abundance of caution, ALERT needs to be prepared to deal with equines who may have a contagious disease and practice biosecurity to quarantine the affected animals and minimize the possibility of spread to others in our care.

The following protocols must be applied:

- **No shared fences**. Affected animals must be housed in a way that does not allow them contact with other equines.
- **No cross contamination of equipment**. Hay nets, water buckets, grooming equipment, even wheelbarrows need to be labelled and kept separate for non-affected horses.
- **Human vectors**. Volunteers who care for quarantined animals must do so at the end of their shift and then leave immediately to change clothes and wash up before visiting any other equines. This means the area near the pen needs to be restricted.

This may not require a vet to attend if the symptoms seem mild. The illness often resolves without intervention in the case of influenza or a cold. There is still enough risk, however, that we want to avoid spreading the pathogen that may be the culprit.

# 5.0 BASIC HANDLING

# How to put a blanket on

https://youtu.be/4KIZ6I6ESCA?si=DHvq6UdABe-nCSWc





# How to apply fly spray

https://youtu.be/u\_f9Wn-2qrs?si=d68UyhpQtNiPy3Kf

# How to pick a hoof

https://youtu.be/2z2bb1syxjU?si=Qgfll6xX\_fPNHKX3





# How to apply ointment to an eye

https://youtu.be/gYw\_PBJ6mME?si=XSajJIWRhFsblfgx

### Problematic behaviour

https://youtu.be/rjxlyX95Okk?si=jkHutnfux5gF5wFW



# PRACTICAL EXERCISES

# **Mock Mountain Fire**

(EEH 202 training exercise)

Date: March 10, 2024

Start time: 13:00

Location: Riding 4 Life Ranch – 5621 Sawmill Rd.

### Scenario:

The Mock Mountain Fire started on March 7, 2024 in the early afternoon. Evacuation Orders were issued for 30 properties in a rural area with several hobby farms – many of which housed equines. An Evacuation Alert was issued for an additional 24 properties in the areas. 16 equines arrived at R4L Ranch on March 8<sup>th</sup>. Another 4 equines arrived on March 9<sup>th</sup>.

At 10:30 today a further 8 properties were ordered to evacuate. Some more equines have already been brought into the Ranch by the owner and off loaded into the arena awaiting intake. ALERT haulers have been dispatched to haul 2 more.

Several ALERT volunteers are scheduled to arrive for a husbandry shift at the Ranch at 13:00. Tasks today include cleaning pens, walking/turning out equines housed in smaller pens, feeding and watering, and tending to any care needs that arise.

Once all basic husbandry tasks are completed, Riding 4 Life staff will be available for mini clinics on the following topics: (beginning approximately 14:30)

Maya: checking vital signs and emergency wrapping (as demonstrated in 201)

Nella: fly masks, fly spray, eye drops, and hoof picking

**Jessica**: Turn out safety during husbandry shift followed by horse handling practice

**Chris**: Muck out and handling safety during husbandry shift followed by horse handling practice

All ALERT members to report to a debrief at 15:30. Meet in front of the barn.