

Helping horses to be happy and healthy

by Emily McDonald <http://www.meadowfamilyrescue.com/>

To help our horse friends to be happy and healthy we first have to understand their fundamental needs. The Natural Animal Centre's behaviour triangle below shows how horses prioritise their needs in order of importance. At the bottom of the triangle is the most important need of safety. If they do not feel safe then the needs higher up on the triangle will be affected e.g. the horse doesn't feel safe (need 1) and so they will not sleep normally (need 4). Some horses do not feel safe for a long period of time and they will have to sleep to survive but it will not be good quality sleep, like us on a long flight. Whereas, other needs which are not vital for survival may be given up completely if the needs below are not fulfilled. When horses are able to fulfil their needs then they can truly feel joy and peace.

Ideally horse's need:

1) Safety - A permanent herd together 24/7 allows horses to feel safe as others are watching out for them.



2) Eating and drinking - To drink and eat as a group. They need to eat for about 17 hours a day. 1 and a 1/2 hours of this time can be spent browsing on bark, twigs, leaves, roots, fruit and seeds (8).



3) Body care - Horses need plenty of space to roll and stretch and something sturdy to scratch on. They require access to companions who they like to mutual groom with. Horses need options available which allow them to regulate their own temperature.



4) Rest and sleep - For horses to sleep properly it is vital that they feel safe enough to do so. In addition, they must be physically able to lay flat and stretch their legs out somewhere comfortable. Horses sleep for 3/5 hours in many different bouts throughout the day and night (9).



5) Motion - For both emotional and physical reasons horses need to keep moving throughout the day/night. Plenty of room allows them to run and play which aids their health and happiness. Horses are most active at dawn and dusk as they are crepuscular and so being able to move at these times is especially important.

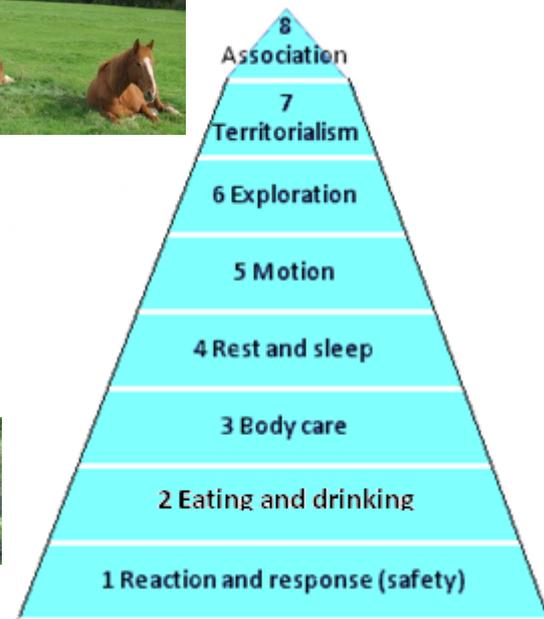


6) Exploration - Horses need a stimulating environment for them to investigate. This aids their problem-solving skills and builds their confidence.



7) Territorialism - Horses need a well-known home range where the herd can feel safe and make choices.

8) Association - Social interaction is essential to a horse's happiness. Horses will form lifelong bonds if we allow them to stay together (18).



Now that you have an overview of your horses needs you can go through the list and apply what works for you and your horses situation. You may not agree with everything listed as a lot of the ideas are not in line with traditional horse management. So, just take what you want and leave what you don't. Even if you can only manage one small thing today, that is fantastic.

Please note that every horse is different and what may be a positive experience for one horse can be frightening for another. So, introduce all changes gradually and observe your horse to ensure that they are ok. Also, any changes to diet should be made slowly to avoid conditions such as colic and laminitis. The information provided in this article is a starting point and further research may be needed. In addition, certain changes should be made with the support of an appropriate professional e.g. vet, behaviourist, nutritionist.

1 To fulfil your horses **safety** needs:

- Above all horses need to be with a permanent herd of the same horses. In natural conditions groups are stable except for about 75% of youngsters leaving to join a new herd when they are 1.5 to 4 years old (9). Sometimes two friends will leave together and they may stay close with an overlapping home range so that they visit their family (21). Equines who leave their nursery herd may join a new herd where they already have a family member. Once they move they will often stay with that herd for life (9). The reason that youngsters leave is to make sure that there is no incest. In domestic situations where we geld stallions then it is ideal for mares to be kept with their offspring long-term as part of their herd. This is drastically different from how some horses are taken from their family abruptly and forever and then moved from yard to yard leaving their friends behind each time.



- Horses need horse company. 'Alone-ness equals loneliness in the horse' (4 p204). A lone horse can never feel truly safe and different species company is just not the same. It would be like if you only ever saw horses, sure you would have company but you would crave a conversation with a human!

- Stallions/geldings are the protectors of the herd and spend more time being vigilant (14). Being able to fulfil this role is hugely important to their welfare and also allows the mares and young to be less vigilant. This is one reason why it is important to have a mixed gender herd.



- When frightened horses bunch together as a strategy to confuse predators. For horses it is more important to bunch together than it is to run away alone (14). This really shows the gravity of the importance for horses to be together in order to feel safe.



- If your horse has to go through a stressful experience e.g. seeing the vet, you can make it easier by having their herd nearby. A human example is that a child will be a lot calmer at the dentist if his mum is with him.
- In a stable/barn by providing more windows and in different directions they will feel safer as they can see more of their surroundings. Vision is their primary sense and it is extremely important to them that they can see what is around them (21). In a study increasing the amount of openings resulted in weaving and nodding behaviours to decrease (2).
- A chain across the stable door allows the horse to see more and makes the stable seem more open.
- Bonded horses should be stabled next to or within sight of each other so that they can feel safer knowing their friends are nearby.
- Horses will prefer a room with a view, no one likes to be stuck looking at a wall all day. However, it is not ideal for them to see the arena as it can cause them to release stress hormones if they watch horses being ridden.



- Horses should be able to see at least one other horse at all times. If they are stabled and cannot see a horse they will spend more time standing alert (20).

- A quiet peaceful home is best. A radio on all day is not ideal as it disturbs and affects your horses ability to hear other sounds which may make them anxious.
- Horses are generally more vigilant in the early morning and late afternoon as predators normally hunt at these times and then at midday vigilance is usually relaxed (14). Use this to your advantage and plan potentially stressful events e.g. vet visits at midday when they will generally be calmer (depending on their normal routine).
- Non-nutritional suckling (only 3-5 seconds) helps to calm and reassure foals (14). It is important for foals to stay with their mum for as long as possible as she helps them to cope with any stressors such as castration. Following castration the first thing my colt friend Buddy did once awake was to seek out his mum Tulla and nurse.
- Horses will always feel safer in big enclosures with a good view of their surroundings. When they are trapped in a small area e.g. stable or tied up, then they will feel tense. In addition, when a herd are together we need to ensure that the space is big enough so that the horses can easily move around the space without conflict.
- Avoid electric fencing in small areas as they are fearful of going near it.
- Horses have a preference for light (9). So shelters which allow in natural light are ideal.



2 To fulfil your horses drinking and eating needs:

- For safety reasons drinking is a group activity (like us at the pub) so put many water buckets/troughs together and position them away from a wall so that the horses can drink at the same time. Letting the herd drink together in an open space prevents scuffles around the water trough as the horses have plenty of space to move away and cannot get trapped against the fence. If necessary you could also put a second water source near to the first then the horses will see that water is plentiful and does not have to be defended.



- Use a fish tank net to clear leaves and bird poop from your horses water trough every day to keep it clean.

- Free ranging horses eat a huge variety of plants. So for our managed horses try to provide a wide variety of safe herbs, branches and logs for them to browse on. This will prevent your horse wood-chewing on their stable, fence etc which can splinter their alimentary tract or cause intestinal disruption (4). The easiest way to do this is to plant a variety of trees, shrubs and herbs for your horses to self-select. In the UK the Woodland Trust provides grants for landowners planting trees so buying from them can save you money. Also, some companies will pay landowners to plant trees to offset their carbon emissions(11). Trees and bushes have a huge positive impact on the horses and their environment in many different ways. A bio-diverse pasture will provide minerals and compounds that have many health benefits (11).



- If you aren't able to plant on the land then you can allow your horse to choose safe herbs from different bowls. You can either buy the herbs or harvest them yourself and feed them fresh or allow them to dry out e.g. nettles need to sun dry to remove the sting. Some weeds are included in the category of herbs. Weeds are also helpful as they stabilise and protect bare soil, break up compacted soil and 'mine' deep minerals with their tap root (11). Although there are some weeds such as ragwort which are poisonous and should be removed from the pasture.

- Ideally provide different types of hay and both wet and dry so that they have a choice of what they prefer. Research suggests that generally horses prefer wet hay (21). Soaking hay in water reduces the levels of water soluble carbohydrates (sugars) although soaking also causes a loss of nutrients such as protein and minerals so a short one hour soak is best. Hay should be soaked in cold water and fed quickly to prevent it going mouldy. The water used for soaking hay should be poured over grass or gravel at least 30 metres from a watercourse as it will be contaminated with leached nutrients. Alternatively, there are hay steamers which reduce dust, kill mould, fungal spores and bacteria and also decrease the risk of horses developing inflammatory airway disease. The only nutrient steaming removes from hay is sugar so it conserves the nutrition in the hay better than soaking.
- Think of yourself as a grass farmer. The Equicentral System book series are the best books I have read on land management. I would suggest that every horse owner reads them, you could save time, money and labour. The crux is that you need healthy soil to grow healthy plants to have healthy horses. A communal surfaced yard is where all facilities are e.g. water, shelter, so the horses spend time loafing there and so rest the pasture. The grazing should be separated into at least 3 paddocks with one in use at a time with its gate left open to the yard. Meanwhile, the other two paddocks are rested. Once the grass is down to 5cm the horses should be moved on to the next paddock where the grass would ideally be 15-20cm high. Following a change of paddock the used paddock should have the grass mown so that it is all one length, then wait 2 weeks for dung beetles to move out and harrow. Rotating and resting the paddocks this way leads to the death of parasitic worm larvae as they wait in vain for a horse to eat them. Also, harrowing spreads the manure so that it dries out killing some worms, then strong sunshine or frost will kill more. The worm burden can be further reduced by cross-grazing with sheep who will kill the parasitic worm larvae when they eat them as they are host specific. The effects of managing the worm burden in this way means that chemical parasitic worm pastes can be minimised, which helps the dung beetles, who then help us. (11). To find out more about the Equicentral System you can order the books through the link below and a donation will be made to the Meadow Family: <https://www.equiculture.net/a/9637/sWDckvPQ> Also, you can connect with others using the Equicentral System by joining the Facebook group 'Equicentral Central' at: <https://www.facebook.com/groups/1675132882738247/>



- Horses need a variety of low sugar pasture plants (11). In the Equicentral System books they detail how to make your pasture safe for your horses to graze and how to transition them to having forage available at all times.
- Carol Hughes of <http://www.phytorigins.com> provides wonderful information on feeding the horse naturally. Basically, horses need to eat low quality (not mouldy) fibrous food. They need a variety of grasses, herbs, shrubs and hedgerow plants. The ideal paddock should contain 60% grass and 40% other plants. For confined horses they can be fed hay before being turned out to fill their gut so that they don't gorge on the grass. To learn more you can join Carol's group Equi-biome through the link. It focuses on plants to help horses who are overweight, have laminitis and/or metabolic disorders: <https://www.facebook.com/groups/1862115997153052/>

You can see Carol discuss pasture management on Epona's website here:

<https://www.epona.tv/equine-superfoods-with-dr-carol-mic>

- Seed grasses in your pasture which are healthy for your horse. Grasses may look very similar but some have 300 times the sugar per mouthful! For more info visit: <http://www.safergrass.org/>
- Be aware that short stressed grass is higher in sugar. This safest length for grazing is from 5-20cm (11).
- The time of day affects the sugar levels in grass. Sugar will be highest from mid-noon to early evening (11). Personally, I put out fresh hay in the afternoon so that they are more likely to eat the hay then have a rest before eating the grass again.
- Environmental conditions affect sugar levels in grass e.g. shaded grass will have less sugar (so plant more trees) as will grass on a cloudy day. For more info on how the environment affects sugar levels see the Equicentral System book series <https://www.equiculture.net/a/9637/sWDckvPQ>
- Horses can discriminate hundreds of plants by feel. The ones that they don't want to eat are flipped aside with their upper lip (14). This behaviour is interfered with when horses wear grazing muzzles and this could lead to horses ingesting plants that they normally wouldn't. Alternatively, horses may spit out the plants that they don't want and these fall to the bottom of the muzzle until it is removed and the plants are taken out by a human.

- Horses need low sugar, fibrous hay available at all times (11). Ideally, horses should even have hay available when there is plenty of grass as it fills up their gut so they eat less grass. After 2/3 weeks of continuous access to a single feed ponies will stabilise their bodyweight and consume 2 to 3% of dry matter (9). This is because horses learn that food is not scarce and they don't have to overeat. If horses are left without food it can lead to colic and acid building up in the stomach causing gastric ulcers. Also, restricted feeding can increase insulin resistance as the body goes into 'starvation mode'(11). Dr Juliet Getty has many articles on free choice forage feeding which you can find here: <http://gettyequinenutrition.biz/Library/Announcement.htm>

- Ideally horses should have 24/7 access to pasture so that they can graze for about 17 hours a day. Horses eat little and often as they were designed to. If this is not possible then try for as much turnout as possible. I know some people worry that their horse will eat too much and so restrict turnout. The problem is then that horses eat much quicker when they are turned out. They view grass as a scarce resource and in 4 hours they can eat the same amount that they usually would consume in 8 hours (1). Usually the issue with obese horses is that they are eating grass which is far too rich for them. So we are actually better off giving them free access to grass and hay 24/7 but making sure that it is the right type of grass/hay. It is perfectly fine for them to gain a little weight in the summer as long as they lose it in the winter. This is the natural rhythm for them. One last point, I am often told that horses are only turned out for 2 hours a day as they will get fat. Is it any surprise that they are fat if they stand still in a stable for 22 hours a day?



- Feral horses do not compete for food. If grazing is scarce they spread out and so avoid competition (14). They don't guard grass. The aggressive defending of food e.g. pile of hay, between horses is a man-made problem. When feeding hay to a group of horses it should be fed in many different piles spread out. If the horses are displaying signs of aggression then put down more piles further apart. Alternatively, if the surface is safe to



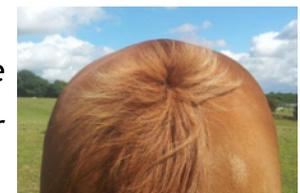
feed on (not sand) hay can be broken up and lay in trails encouraging horses to move and eat. Also, it is good practice to shake out hay 'biscuits' as occasionally there can be litter broken up in it.

- Slow feeders reduce aggression in groups (14). Also, in stables slow feeders have been found to reduce stereotypic behaviour and normalise time budgets (Hallam et al 2012). So, in theory they are good but through word of mouth I have heard of horses incisor teeth being damaged when eating through hay nets and metal grates. Also, there are concerns about horses being able to reach 'gut fill' and so feeling hungry and eating more. Through watching horses eat hay I see a lot more tension when they eat from a hay net compared to loose hay on the floor. I feel that we still haven't found the perfect way of feeding hay yet. But one thing we do know is that hay should be fed low down on the floor to facilitate good teeth, nerves, muscles and drain the airways (9).
- High value bucket feeds should only be given when horses are separated to avoid them guarding their bowl and being aggressive to each other.
- If you give your horse a bucket feed it is best to give the different feeds separated in bowls placed around their space so that they have a choice of what to eat and are encouraged to move and eat. Or if possible (depending on the food and floor) you could scatter the feed on the floor so that they will walk and eat.
- Provide your horse with free choice salt in a bucket so that they can eat as much as they need. I like to have both sea salt and a pink himalayan salt block so that the horses have a choice.
- Horses may eat soil to supplement their dietary sodium (17). Another reason why they should have access to pasture every day.
- Hide vegetables and safe plants in their hay for them to forage for.
- Make your horse a treat branch by skewering fruit and veg on to branches (16).
- Leave treats in random places to give them a feel-good boost (like us finding a £10 note).



3 To fulfil your horse's body care needs:

- Trees and hedge plants provide shade, scratching and eating.
- A variety of rough textures to scratch on and a soft pillow post available at <http://www.meadowfamilyrescue.com/shop> will provide your horse with different textures to scratch themselves on.
- Put 3 posts in the ground, then put tyres around them in a stack to make a scratching post. Alternatively, you could fill the tyre stack with earth and make it shorter so that they can scratch their stomach on it.
- Tails kept long in length can be used as a fly swat. Close friends may stand top and tail so that they can fly swat each others faces. Also, bonded horses will huddle very close to reduce the insects near their eyes.
- The tail should not be pulled at the dock as it hurts them and the long hair protects their bottom from colder weather. In the wind and rain the horse turns their rump into the wind and their tail blows through their legs to protect their delicate area and stomach. Or when hot the dock is a thermal vent and when warm they lift their tail to let heat escape (4).
- Manes kept long protect them from the sun, flies, wind and rain. In the winter the mane prevents heat loss from the jugular vein (13). Not to mention they look marvellous.
- Ear hair shouldn't be trimmed as the long hair prevents foreign bodies and bugs entering the ear canal (9).
- Whiskers should not be trimmed, to find out why you can read our article through the link: <http://www.meadowfamilyrescue.com/whiskers>
- Time without a rug on with bonded companions allows horses to mutual groom which aids shedding, parasite control and alleviates stress (13).
- Many horses (especially over-weight horses) are better off without a rug as being naked helps them to lose weight over winter. To find out how horses naturally



regulate their temperature see the article here:

[https://](https://holistichorseandhoofcare.blogspot.co.uk/2014/03/thermoregulation-in-horses-in-cold-time.html)

holistichorseandhoofcare.blogspot.co.uk/2014/03/thermoregulation-in-horses-in-cold-time.html

- A fly mask may be needed depending on the horse. Some horses grow a long forelock which acts as a fly fringe whereas others may not. The horse's behaviour will show you whether they need one or not e.g. Bartley will show he wants his fly mask on by putting his head into it. Also, if I take it off it is easy to see by his head shaking how much he is irritated by the flies whereas the others aren't really bothered. Fly masks can be scary for horses to wear so introduce it very slowly. You may even need a behaviourist/trainer to help you to do so in a positive way.
- Neem oil can be used as a natural fly repellent. However, as it is an oil don't put it on pink skin that could burn.
- A big varying field gives horses options to help them regulate their temperature e.g. rest somewhere with strong wind or stand in the shade. To warm themselves up horses love to sunbathe with the side of their body to the sun (21).

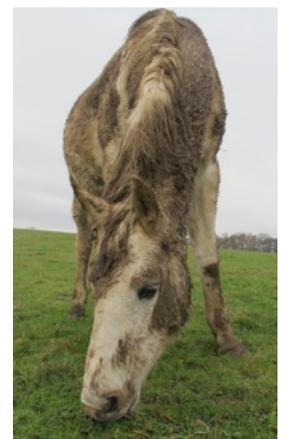
- Horses need a span of 6 metres to roll properly (9), space not normally accommodated in a stable. This is why so many horses become cast/stuck when rolling in a stable. They just don't fit!



- Horses need to be out in the daylight everyday so that they can make Vitamin D which is important for many functions such as keeping their bones healthy (6). This means that their skin needs to be out i.e. no skin-tights hoods over their head.

- In the summer you can create a muddy area for them to roll in which will provide protection from the flies and sun. Don't worry about what they look like, for horses mud is always on trend.

- Allow your horse to roll and be muddy. Rolling has many benefits such as to help them shed their coat, to scratch and stretch their body and to speed up the drying and re-fluffing of their wet coat. In winter a layer of mud traps heat and protects the horse against the wind.



- Ideally, horses will have access to a shelter/barn which is big enough for all the horses to use at the same time to escape the sun and rain. Usually the more open it is the more they will use it as in general horses do not like to be enclosed as they are prey animals. In addition, the more open the better the ventilation and air quality. Also, windows and doorways which allow them to see out of the shelter will help them to feel safer.

Alternatively, lowered walls or hedges instead of walls allow a greater view of the surrounding area. Also they limit wind but allow a nice breeze in the Summer.

- In the Equicentral System a surfaced yard allows you to rest your grazing while they are in the yard drinking, resting etc. It provides an area of hard standing which gets them out of wet conditions and is great for hooves. Ideally provide different surfaces in the yard so that your horse has a choice of textures to roll and walk on. You may like to use sand (not where they have hay), hardcore, pea gravel, grass mats, rubber stable mats (careful of slipping) and concrete. I have heard of one great set-up where the horses have 6 different surfaces and the owner has observed the different horses having particular preferences.
- The marvellous examples below show where a communal shelter and surfaced yard have been used. You can see that there are different ways to achieve the same goal. The benefits to group housing compared to individual stabling are vast. The most important being that the horses can interact freely with their friends/family and they have the freedom to move, which has many positive effects on them physically and emotionally.



In the set-up below there are fold out partitions that can be used to make separate areas for feeding and this can also be used as one bigger area should you need to confine a horse.





4 To fulfil your horse's rest and sleep needs:

- Horses sleep for 3/5 hours a day (9) This time is spread over many different bouts throughout 24 hours (21) so be aware that when horses are stabled for the night they are not sleeping all night as we do.
- To feel safe enough to sleep horses need the company of at least one other horse who will keep watch for them.
- In preference tests horses have shown that they prefer to sleep on deep straw beds (9).
- Horses on deep beds lay down more (9).
- Horses need enough space to lay flat with their legs stretched out.
- Any medical issues which reduce the horses ability to lay down e.g. arthritis, should be managed to support them.
- If horses travel and stay away from home they will likely not feel safe and this will have a detrimental impact on their sleep.



5) To fulfil your horses motion needs:

- In general horses dislike physical restriction (14). This could be in the form of being held on a head collar and lead rope, tied up, cross-tied or physically confined in a small area like a stable. Signs that your horse is feeling stressed or frustrated by being restricted are pawing with their front leg, stereotypes such as box walking etc.
- Make stables as big as possible and only use them for short periods of time. As if movement is restricted this increases the risk of leg and hoof problems (21). Another effect of lack of movement is the development of laminitis and metabolic syndrome as exercise helps the body to regulate insulin (7).



- A better alternative to a stable is a communal barn/shelter. However, with communal living be careful not to over-crowd a confined area with too many horses.
- A patio outside their stable/shelter/barn gives them a bigger area to move around. In addition, they have a choice of whether they want to be in or out and so can regulate their temperature easier.
- Continual movement while grazing and marching to different areas leads to better circulation and hoof quality as hooves rely on movement to function properly (11).
- Turn horses out in as big a field as possible to encourage them to move more. In fields smaller than 5 acres canter is restricted and they cannot play properly (5). In addition, a larger field will reduce parasitic worms and likely add a wider variety of plants (4).

- If pasture turnout is restricted try to give your horse daily access to the sand pit with their friend so that they can move freely and interact together.



- Take them out for nature walks in the countryside with breaks to eat safe plants. Some horses may love to explore different areas although other less confident horses will like to stick to where they know. If your horse is reluctant to leave home when going out then this is not enjoyable for them and you should get professional help to ensure you both enjoy going out together.



- If you have two horses you can ride one and the other can follow you around your enclosed fields.

6 To fulfil your horses exploration needs:

- Give them access to a big interesting paddock with hills, mounds, dips, logs, hedges and woodland where possible.
- Puzzle games give them positive experiences with new objects,



click the link to see more: <http://www.meadowfamilyrescue.com/horse-puzzle-games>

- A log/pile of sticks make the space more interesting as they have to move around them and they may like to jump the logs when running and playing (Buddy does this). Also, they provide a habitat for the insects who can help the land.
- When it's hot a paddling pool and water sprinkler can be great fun.
- Nature walks as mentioned above are a great way to extend the horses home range and allow them to explore.
- Provide a variety of safe toys for horses to play with and explore. This will increase their comfort zone as they feel safe at home with the support of their friends.
- In any way, shape or form positive, diverse experiences boost the confidence of horses, so be creative! (21).



7. To fulfil your horses territorial needs:

- Horses have a home range which they normally occupy (4). They feel safe here as they know escape routes and where resources are (9). It is vital for horses to have an intimate knowledge of their home range so that they can flee safely even at night time (14). It is important to realise that horses feel safest being where they know and moving away is very stressful for them.
- The freedom to move around a large area gives them more choices of what they would like to do. A big space is important for reducing worms, trimming feet and providing a variety of nutrition (4).
- Make sure that resources are plentiful so that they do not have to worry and compete with each other which can lead to aggression and guarding.
- Herds move from one activity to another as a group (14). When horses live in a herd and are given the freedom to move around the space they can act out normal behaviours together.
- With regards to space; the bigger the better. The smaller the enclosure the higher the rate of aggression in grouped horses (Flauger & Kreuger 2013 cited in 14). This is because over-crowding makes it difficult to avoid invading others personal space (14).
- A horses personal space bubble is about a metre around them (14). This takes up most of a stable and so each time a human goes in they are invading the horses personal space. Under normal circumstances the horse could move away but unfortunately in a stable they are trapped. When a horses space is so restricted they may guard it aggressively from humans and horses who walk past. The answer to this is simple, don't confine them to such a small area.



8. To fulfil your horse's association needs:

- Horses will show who they have attachments to by choosing to spend time with particular horses. They will also show affectionate physical contact such as putting their head and neck over the others back and touching and playfully nibbling each others face, neck or shoulder (14). When we know who horses are friends with we can then make sure that they can remain close to each other e.g. stabled in sight of each other.
- Ideally, youngsters will have the opportunity to grow up with their father present. This takes the pressure off mum as the dad takes responsibility for safety so mum can focus on eating enough to keep both mare and foal healthy (14). Also, the foal will play with their dad and learn normal male behaviours. Stallions carefully raise the standards of play until the colt is 2 years old (14).
- Horses learn social skills through being part of a varied herd (14). Youngsters physically get very close to their mum so they must learn from other older horses about the etiquette regarding personal space (14). Ideally, the herd will be a mix of mares and geldings and different ages so that they can enjoy a rich social life. Although introductions must be made carefully as some horses do not have great social skills due to being weaned early and kept in single sex groups.
- Horses will normally choose to befriend other horses who are similar to them in age, gender and size (18). So, take this into account when putting groups together. For example a group of elderly horses wouldn't give a lone youngster the stimulation they need. And vice versa one elderly horse would likely get fed up living with just youngsters. A study on Prezwalski horses found that youngsters brought up in groups without enough adults had higher rates of aggression (Bourjade et al 2008 2009 cited in 14). As with most things in life a balance is needed.
- To horses every activity is social and they synchronise to stay in the same area together. Horses often graze facing in the same direction and when moving to a different place they usually walk in a line. This is why more and more people are facilitating their horses to live in a permanent herd 24/7.
- The worry that horses will bond excessively and develop separation anxiety sometimes leads to people keeping their horse separated from other horses. The issue with this practice is that through keeping horses alone we create insecurity and anxiety anyway. Also, if horses are repeatedly moved, bought and sold these many attachment losses can understandably lead to anxiety about being separated from their friends. On the other hand, horses who are part of a permanent herd tend not to worry when one horse temporarily leaves as they have the others and they feel safe in the fact that the horse will return as they always have. If your horse struggles with separation anxiety I would recommend that you see a qualified behaviourist who can help you both.
- Being part of a large herd gives the horses an opportunity to choose their company.

- When stabled horses can be visited by their friends. Just be careful only to do with this with close friends so that the stabled horse doesn't feel trapped. Be sure to supervise visits to ensure that the horses are safe especially if there is a rope tying one up.



- Group instability increases aggression (14). So, make sure that the same horses are turned out in the field together so that they can settle as a herd.

- Some stabled horses will be happier if they can see, smell and touch their stable neighbour through a part grill or window in between the stables. This has been proven to reduce weaving and nodding (9). However, make sure that there is an area where they have space away from other horses. Also, be careful where you put food as you don't want the horses to be aggressive and guard their food from each other. The food should be in the area where the horse's space cannot be invaded by the other horse.



- Spend time with your horse doing things which they like e.g. hand-grazing.
- Spend time with your horse chilling. Just sit/stand and relax with them doing what horses do best. Some horses may like to be scratched or stroked and some will not, leave it up to them.



So there you have it, the recipe for a happy and healthy horse. Focus on just one need at a time, write your to do list and then in no time your horse will be living the dream.

Feel free to send me pictures of your enriched environments and let me know if you have an idea to add to the list. With full credit given to you of course.

Good luck, I look forward to seeing all the happy horses!



References

1. Biggs-Waller, S, The Horse (2012) *Horses grazing summer pastures* [online] Available: <http://www.thehorse.com/articles/29114/horses-grazing-summer-pastures>
2. Cooper, J, McDonald, L and Mills, D (2000) *The effect of increasing visual horizons on stereotypic weaving: Implications for the social housing of stabled horses*. *Applied Animal Behaviour Science* 69:67-83.
3. Coumbe (2001) *The equine veterinary nursing manual*, Blackwell science ltd, Oxford
4. Fraser, A (1992) *The behaviour of the horse*, CAB International, Wallingford
5. Kusunose, R et al (1985) *Behavioral studies on yearling horses in field environments: 1. Effects of the field size on the behavior of horses*. *Bull. Equine Res. Inst.* 22:1-7.
6. NHS (2014) *Vitamin D* [online] Available: <http://www.nhs.uk/Conditions/vitamins-minerals/Pages/Vitamin-D.aspx>
7. Mazan, M, The Horse (2012) *Healthful Horse Barns* [online] Available: <http://www.thehorse.com/articles/29115/healthful-horse-barns>
8. McDonnell, S (2003) *The Equid Ethogram: A Practical Field Guide to Horse Behavior*, The Blood-Horse Inc, Hong Kong
9. McGreevy, P (2004) *Equine Behaviour*, Elsevier Ltd, China
10. Mills, D.S., S. Eckley, and J.J. Cooper. (2000) *Thoroughbred bedding preferences, associate behaviour differences and their implications for equine welfare*. *Animal Science* 70:95-106.
11. Myers J & S (2015) *Healthy land, healthy pasture, healthy horses - The equicentral system series book 2*, Equiculture Publishing
12. Myers J & S (2015) *Horse property planning and development - The equicentral series book 3*, Equiculture Publishing
13. Rees, L (1984) *The horses mind*, Butler & Tanner Ltd, GB
14. Rees, L (2017) *Horses in company*, JA Allen, Wiltshire
15. Rogers, S <http://www.learningaboutanimals.co.uk/>
16. Sallet, A <http://www.equinebehavioursolutions.co.uk/>
17. Salter, R,E and Pluth, D, J (1980) *Determinants of mineral lick utilization by feral horses*. *Northwest Science* 54:109-118.
18. Simpson, H (2004) *Teach yourself horse*, D.J. Murphy Ltd, Great Britain
19. Simpson, H (2008) *Meeting the needs of your horse*, NAC Library Publiation, Great Britain
20. Sweeting, M.P., C.E. Houpt and K.A. Houpt. (1985) *Social facilitation of feeding and time budgets in stabled ponies*. *J. Anim. Sci.* 60:369-374.
21. Waring, G (2003) *Horse Behaviour*, Noyes Publications, New York