

Vital Signs

When examining your horse, the first thing the vet will do is take your horse's 'vital signs'. Matt Hanks BVSc MRCVS, of Central Equine Vets, discusses how to check your horse's heart rate, respiratory rate, body temperature, mucus membrane colour with capillary refill time, and hydration status.

Any animal - be it human, horse, mouse or elephant - has a narrow range for all of the vital signs listed above. Any deviation from the 'normal' is suggestive of some problem the body is having to deal with.

1 Heart Rate (HR) - Almost every horse I see has its HR measured. This simply involves placing a stethoscope on the left side of your horse's chest, just behind the elbow, and listening for about 30 seconds and then doubling the number to get the number of beats per minute. In a full size horse, the heart rate will be around 36-40 beats per minute (bpm). A very fit horse could have a lower HR (ask an endurance rider) and a small pony will have a slightly higher HR. I wouldn't worry until the heart rate was getting close to 60 bpm.

Any horse that is painful, sick with an infection or has a poorly working heart will have an increased HR. Knowing your horse's normal HR can be very useful and I would urge you all to buy a cheap stethoscope (available for less than £5 online) and start checking your horse's HR. You can also take a pulse rate by feeling an artery under the jaw or on the lower legs but taking a heart rate is much easier.

2 Respiratory rate (RR) - This parameter can be measured with nothing more than a watch. Simply watch the chest of your horse and count in a similar way to the heart rate above. A normal RR should be around 8-15 breaths per minute. A horse's respiratory rate will increase when it is in pain, out of breath after exercise or because of lung disease such as equine asthma.



Check your horse's heart on the left side, just behind the elbow



Checking the mucus membrane colour and refill time

3 Body Temperature - You will need a thermometer for this one. We take horse's temperatures per rectum. So if you are going to do this be careful if you don't know your horse. It does not hurt but it will be new to your horse which may cause it to react. In humans, non-contact infrared thermometers (NCIT) have been used at places such as airports to help control disease outbreaks but in horses, it can be shown that NCITs are not accurate, so they are best avoided.

A normal horse's temperature will be 37.5-38°C. Don't worry if your horse's temperature measures 37°C or lower as you could have put the thermometer into some faeces in the rectum. If your horse looks bright otherwise, then that's okay. If your horse's temperature reaches 39°C or over, then it is probably time to call your vet.

4 Mucus membrane colour and refill time - This test is easily done and is used to show how well the blood is

travelling around the body. In a horse that is very anaemic or in shock, the mucus membranes will be very pale or even white and when you blanch them by pressing a finger on the gums and releasing it, the blood will take more than two seconds to come back.

Get to know your horse's colour as it can vary according to horse breed. Cold blooded horses (cob types) always look slightly paler than a hot blooded horse (Arabs or Thoroughbreds). The refill time after you press on the gums should be the same in all breeds though and should be less than two seconds.

5 Hydration Status - Simply pinch the skin on your horse's neck and it should immediately 'ping back' when you release it. If the pinch stays elevated that may indicate some level

of dehydration. This is called a 'skin tent'. Be careful when doing this after exercise because if the horse has sweated, there may be a 'skin tent' in a perfectly hydrated horse. So, best to do it at rest.

You can also listen to your horse's gut sounds. The interpretation of gut sounds does take some experience but basically, if you can hear some, then that is a good thing!

It's important to have a good 'base line' for all the above parameters as any change can indicate a problem.

Have fun when trying these tests and if you have any questions then simply give us a call on 0131 6645606 or visit our website www.centralequinevets.co.uk as we have lots of facts sheets that explain lots of things from colic to castration.

PARAMETER	NORMAL
Heart rate	36-44 beats per minute
Respiratory rate	8-15 breaths per minute
Temperature	37.5-38°C
Mucus membrane colour and refill time	Pink with a refill time of less than 2 seconds



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