

HEALTH GENERAL KNOWLEDGE STUDY GUIDE

Vital Signs:

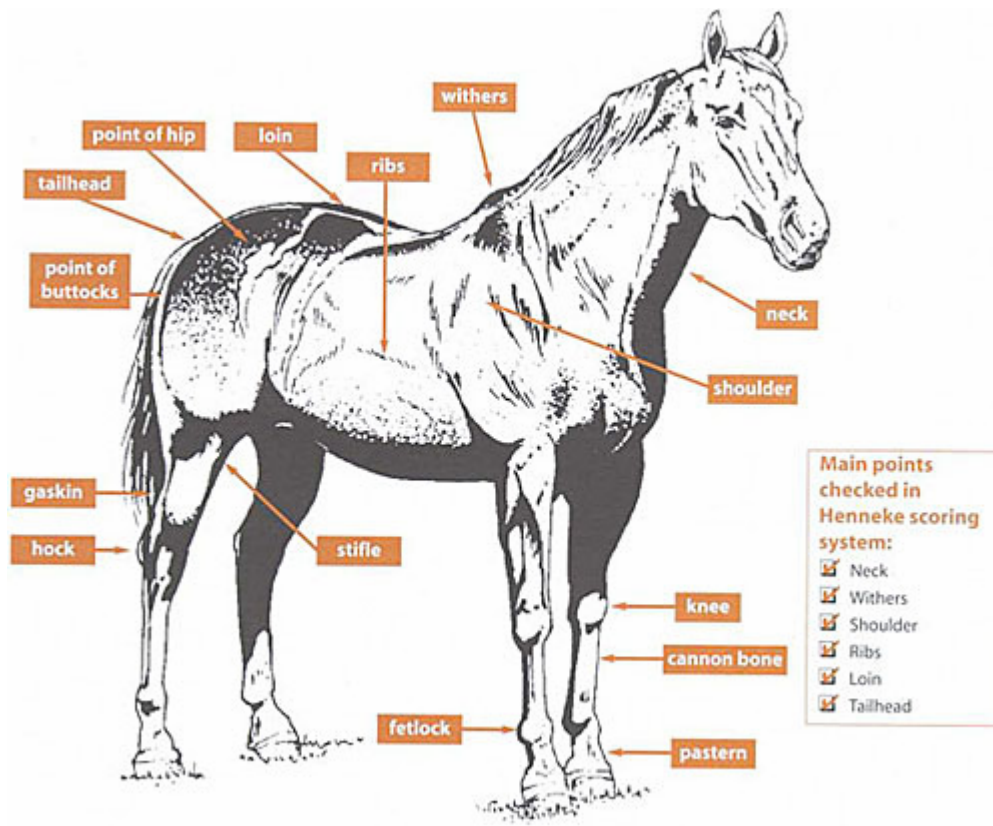
- **Temperature:** Average horse is 100 to 101.5 F, temp of foals is higher than adults. Factors that may cause temp variation is time of day, sex, age ambient temp, wind, precipitation, level and intensity of activity and disease state. Taken with a rectal equine thermometer.
- **Pulse and Respiration rate:** Normal pulse rate is 45 to 60 beats/minute. Normal respiration rate are 8 to 15 breaths/minute. Fitness of horse will have an effect on these rates. When respiration rate is higher than pulse rate is inversion, sign of a serious problem. To observe respiration rate, look at barrel of horse and count for one minute the number of time the barrel expands. To look at pulse rate, place finger under the lower jaw, using finger tip count the heart beats
- **Mucous Membranes:** Such as inner eyelids, inside of nostrils, inner lips, gums and vulva of mare. Should be bright, moist and have a clear pink color. Should not be pale, sticky, dry.
- **Capillary refill time:** Pressing a thumb against the upper gum for a couple of seconds and upon release of the thumb pressure, the area should appear white but immediately return to its normal color within 2 seconds. If it takes longer than 3 seconds continue examination to see if anything else could be wrong.
- **Skin pliability:** To look for signs of dehydration. Pinch skin on side of neck between thumb and forefinger and hold for a couple of seconds. Skin should feel pliable, not leathery and not sign of fold should be apparent 3 seconds after release of the pinch. If it is apparent this is a sign of dehydration.
- **Body Fluids:** Feces, urine, tears, sweat and saliva are all additional parameters to consider when evaluation a horse's health.
- **Teeth:** Horses have 6 incisors in both upper and lower jaws. 6 cheek teeth on each side of each jaw for a total of 24 teeth. Wolf teeth can be in front of the upper cheek teeth, if a problem they should be removed. Teeth should be floated regularly to prevent teeth problems.

Body Condition Score: Balance between intake and expenditure of energy. Can be affected by a number of factors such as food availability, reproductive activities, weather changes, performance, parasite control, dental problems, and feeding practices. Use body condition score to evaluate body fat. Two methods

Henneke scale (range of 1 to 9)

Condition	Neck	Withers	Shoulder	Ribs	Loin	Tailhead
1 Poor	Bone Structure Easily Noticeable	Bone Structure Easily Noticeable	Bone Structure Easily Noticeable	Ribs protruding noticeably	Spinous processes projecting prominently	Tailhead, pinbones and hook bones projecting prominently

2 Very Thin	Bone structure faintly discernible	Bone structure faintly discernible	Bone structure faintly discernible	Ribs Prominent	Slight fat covering over base of spinous processes transverse processes of lumbar vertebrae feel rounded spinous processes prominent	Tailhead prominent
3 Thin	Neck Accentuated	Withers Accentuated	Shoulders Accentuated	Slight fat cover over ribs. Ribs not easily discernible	Fat buildup halfway on spinous but easily discernible. Transverse processes cannot be felt	Tailhead prominent, individual vertebrae cannot be visually identified. Hook bones feel rounded but still easily discernible pin bones not distinguishable
4 Moderately Thin	Neck not obviously thin	Withers not obviously thin	Shoulders not obviously thin	Faint outline of ribs discernible	Negative (Peaked appearance) crease along back	Prominence depends of conformation fat can be felt hook bones not discernable
5 Moderate	Neck blends smoothly into body	Withers rounded over spinous processes	Shoulder blends smoothly into body	Ribs cannot be visually distinguished but can be easily felt	Back is level	Fat around tailhead feels somewhat soft
6 Moderately Fleshy	Deposited fat faintly discernible along neck	Deposited fat faintly discernible along withers	Deposited fat faintly discernible behind shoulders	Fat over ribs feels spongy	May have slight positive crease (groove) down back	Fat around tailhead feels soft
7 Fleshy	Fat deposited along neck	Fat deposited along withers	Fat deposited behind shoulder	Individual ribs can be felt with pressure but noticeable fat filling between ribs	May have positive crease down back	Fat around tailhead is soft
8 Fat	Noticeable thickening of neck	Area along withers filled with fat	Area behind shoulders filled in flush with body	Difficult to feel ribs	Positive crease down back	Fat around tailhead very soft
9 Extremely Fat	Bulging fat along neck	Bulging fat along withers	Bulging fat behind shoulder	Patchy fat over ribs	Obvious crease down back	Bulging fat around tailhead



<http://www.lser.org/images/HennekeHorse.jpg>

Rudman and Keiper (simple, range of 1 to 5)

- 0: Very thin
- 1: Thin
- 2: Fair
- 3: Good
- 4: Fat
- 5: Very fat

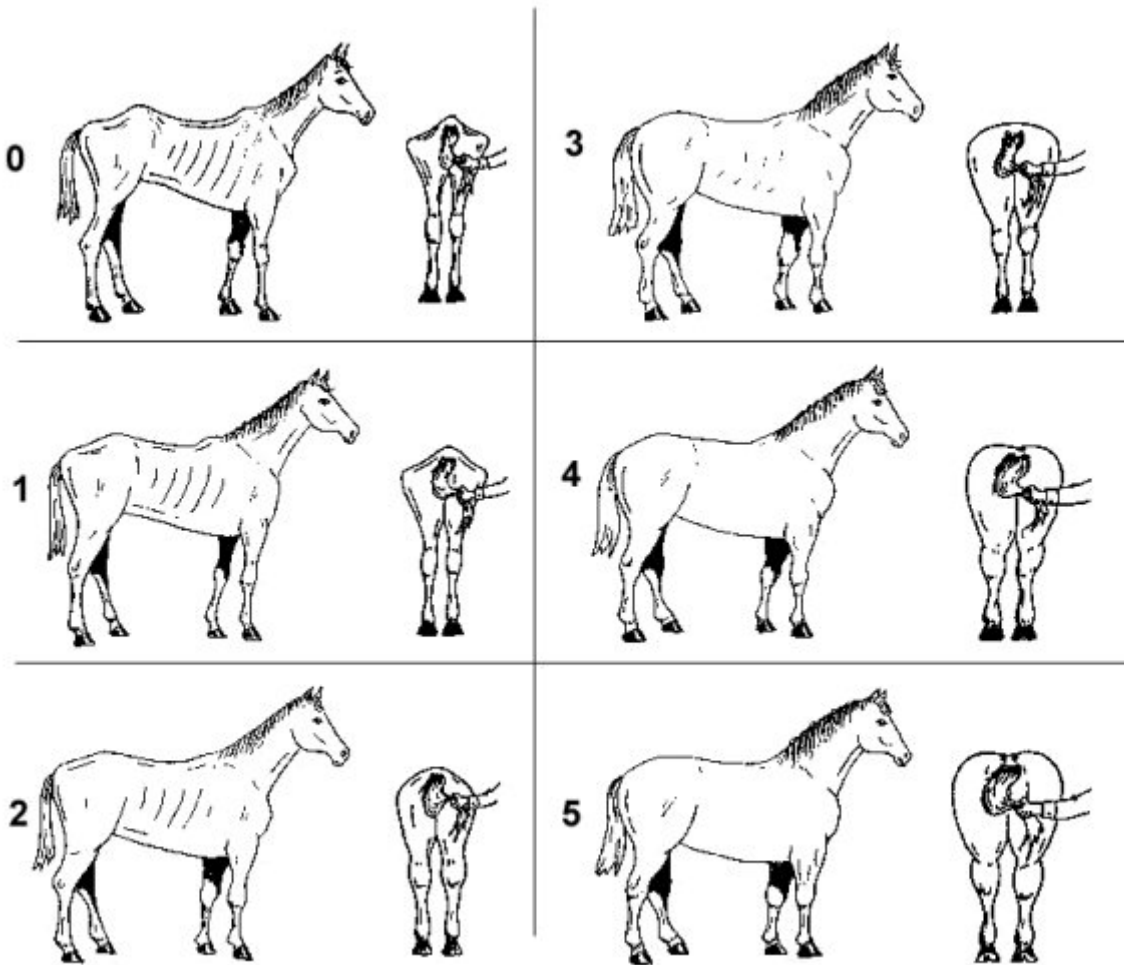


FIGURE 3. Body Condition Scoring (adapted from Carroll C. L. and Huntington P.J., *Body Condition Scoring and Weight Estimation of Horses*)

<http://www.omafra.gov.on.ca/english/livestock/horses/facts/98-101f3.jpg>

Movement:

- Should move in a cadenced manner without jerky or stilted movements,

Coat condition:

- Coat should feel and look healthy, have a healthy shine, not dull and greasy. Bald spot can be a problem. Total feeding programs including nutritional supplements will influence the appearance of coat.
- Parasitized horse will have a poor and/or dull coat.

Hoof Care:

- Can be use to past nutrition, care and diseased states.
- Hoof should be hard with a slick shiny and slightly waxy appearance. Free of growth or fever rings.
- **Coronary band** should not be dry and leathery, should contain enough moisture to feel and appear resilient. No heat in the coronary band or hoof.
- **Frog** of hoof should be firm and slightly pliable and appear intact. Frog should not appear ragged or spongy esp. in the groove (sulci) along either side of the frog. No odor or discharge.

- **Sole** should be firm and thick and not give to excess thumb pressure
- Must be picked out everyday and check for loose nails and shoes is important. Also keep hooves trimmed (every 6 to 8 weeks).
- **Hoof score:** 1: dry, cracked, misshapen hoof with fever ring, 5: slick, shiny, moist, waxy looking hoof free of fever rings.

Deworming:

- Should be dewormed regularly. Consult veterinarian as to a particular schedule to follow and what products should be used. Generally should be dewormed every 2 to 3 months throughout the year, including winter.

Avoiding Hyperthermia:

- **Hyperthermia:** Overheating of the horse especially in the summer must be avoided. Also known as heat exhaustion, heat cramps, heat stroke. Results from hot weather, high humidity, poor stable ventilation, prolonged exposure to direct sunlight, over worked, transportation and obesity. Strenuous exercise should be limited to cooler times of day or season. Good stable ventilation and blankets removed during extreme heat. Clean fresh water should be available. Replacement of body salts or electrolytes is important. Provide ad-lib salt blocks or adding electrolyte mixes to grain.

Winter Care:

- **Keeping Warm:** Winter coats trap body heat between hair fiber and keeping heat in. Horses grow a winter coat in response to the shortening of the day. If a horse has a body clip during the winter months it is important to have cover with a winter blanket. Putting a blanket on a horse with a winter coat will compress the insulating hair.
- **Good Hay:** The most important winter feed, hay should be cut early stage of maturity, have fine stems, leafy, lack dust, free of weeds, free of rain damage, and not moldy. Moldy hay can result in colic and allergic reaction such as "heaves". Hay gives high energy, protein and bulk.
- **Water:** Must be easily available, water temperature should be kept at 45 degree F to prevent freezing.
- **Hoof Care:** Snow can build up under hooves causing pain, best is to pull shoes and keep hooves well trimmed

Disease control:

- Mares and foals should be kept away from weanlings, yearlings, and horse in training and visiting mares. Visiting mares should have a negative coggins test for EIA. Vaccination should be given and should be booster when required, normally every year for most vaccinations
- Knowledge of how your horse normally behaves and acts will aid in spotting clinical signs of different disease.

Feeding:

- Should be fed according to their nutrient requirement to maintain proper body condition. Hay and grains should be palatable. Avoid moldy or dusty hay. Use pasture in spring, summer and fall, and provide ad-libitum salt/mineral blocks

Behavior Disorders:

Important to know your own animal's normal behavior. Can be caused by confinement or restriction of exercise.

- **Weaving:** Sustained movement of the upper and lower body and head from side to side or occasionally back and forward.
- **Cribbing:** Occurs when horse grasps an object with their incisor teeth, arches their neck and depresses the tongue while the horse pulls backwards and attempts to swallow air. Chew wood out of boredom.
- **Wind sucking:** Same habit as cribbing but when the attempt is successful.

Colic : Abdominal pain, not a specific disease but a sign of disease, there are many types of colic

- **Spasmodic:** Muscular spasm of GI track, pain is mild to severe, not life threatening, could be due to over excitement. Sudden change in diet can also cause this. This is most common
- **Impaction:** Blockage of foreign material in the GI track. Blockage can be due to a number of things such as Intestinal stones, enteroliths, sand, rubber and string. Surgery is nearly always required.
- **Incarceration:** Loop of intestine that has become entrapped within a normal or abnormal structure with the abdominal cavity. Most common is strangulated hernia. Blood supply could be shut off causing necrosis of surrounding tissue.
- **Displacements:** Portion of the intestine has become twisted or caught in an abnormal position. Volvulus-torsion (twist) of large colon can be fatal and need swift treatment. Can be strangulating or non-strangulating displacements.
- **Excessive Fermentation:** A lot of gas and fluid and cause distention of stomach and/or intestine. Most dangerous is gastric dilatation where the horse ingests excessive amounts of grain causing distention of the stomach.

ID of Colic: Horses sweat, paw with feet, kick at abdomen, yawn, crouch, lie down or roll.

Treatment: Veterinarian should be called out right away, the sooner the better.

Prevention: Preventative management such as sensible feeding, avoid sudden change in types or amounts of food and enough drinking water.

Games:

Health Check up:

Go to a stable and observe several horses and check for the following: Temperature, Pulse, Respiration, Capillary refill time, Skin Pliability, Mucous Membranes, Body condition score, coat condition and hoof condition. Once you feel good enough on these horse try your own

Measure	Horse 1	Horse 2	Horse 3	Horse 4	Your Horse
Temp					
Pulse rate					
Respiration rate					
Body Condition Score					
Capillary Refill time					
Skin Pliability					
Mucous Membrane					
Coat condition					
Hoof condition					

What up with this horse?

Look the following picture and answer the following questions:

- 1: Where would you check the vital sign on this horse and how would you go about this?
- 2: What you say to justify the statement “this is a health horse?”
- 3: Are there any improvements that you see that could be made?



<http://i6.photobucket.com/albums/y219/aBreeze005/HorsesHome/Maxi/profile.jpg>

Horse # 1:



www.blacksterlingfarms.com

Horse #2: