

# Online HorseCollege



## **Student Workbook**

### **3.H.03 Illness and Injuries**

[www.OnlineHorseCollege.com](http://www.OnlineHorseCollege.com)

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## ***Illness and Injuries 3.H.03 Workbook***

Students are to complete Horse Care 2.H.01 – 2.H.04 online assessments prior to attempting Horse Care 3.H.03 and to follow all recommended safety considerations.

Practical assessments for Horse Care 3.H are as follows:

- 01) Stable Practices
- 02) Horse Husbandry
- 03) Illness and Injuries
- 04) Basic First Aid

These assessments incorporate the following unit from the SIS30710 Sport Industry Training Package which include the listed elements

RTE2121A Provide daily care for horses

- Prepare to work with horses
- Clean stables and surrounding areas
- Perform daily work program
- Select, catch and tie up horses
- Groom and rug horses
- Clean and maintain stable gear
- Monitor health and welfare of horses

RTE2104A Carry out regular horse observation

- Prepare to work with horses
- Carry out horse checks
- Deal with horse emergencies
- Provide veterinary procedure support

*Further information about this assessment is available at [www.training.gov.au](http://www.training.gov.au)*

## **Illness and Injuries Introduction**

Horses are susceptible to many various injuries and illnesses some of which are due to the demands of the domesticated horse, conformation defaults and climate conditions. This workbook covers some of the more common problems that may be presented when working with horses.

## Allergic Reactions

Like humans, horses can have allergic reactions and also like humans the allergen (source) can be difficult to determine. Reactions usually occur as urticaria or angiodema (lumps and fluid swellings) and can be itchy or painful.

Causes could include insect bites, feed, vaccines, drugs, saddle soaps, shampoos, detergents, bedding and grass to briefly name a few. Some reactions to midges produce signs of sweet itch

Allergies can be severe with an anaphylaxis reaction. This is an immediate type of reaction where tissue is invaded suddenly by an allergen, for example an injection of drugs or venom from a snake bite. In acute case it can cause death and signs of anaphylactic shock include:-

- cold, clammy skin & coat
- shivering which develops into rigors (shaking)
- rapid, shallow respiration
- sub-normal temperature
- patchy sweating
- anxiety
- accelerated heart rate
- skin swelling over the entire body, which often merge into each other

### Urticaria



Raised circular or doughnut shaped lumps which can range in size and location.

These lumps can be accompanied by itchiness with loss of skin and hair.

Signs include:-

- multiple welts
- soft, depressable, occasionally firm

### Angioedema



This is the accumulation of abnormal fluid beneath the skin, which can be serious if it restricts breathing and can also be accompanied by itching



## Hoof Injuries

There is a saying, 'No hoof, no horse' which emphasizes the importance of the health, strength and structure to horse soundness. The hoof is of vital importance to the horse as each hoof must support the full portion of weight of that limb.

### Quarter Cracks/Sand Cracks

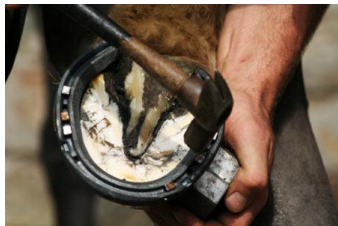


**Causes-** Injury to the coronet band (i.e. one foot treading on another), poor hoof conformation

**Symptoms-** A crack in the hoof which extends from the coronet downwards. If the crack extends into the deeper tissues of the hoof the horse will be lame from either infection or inflammation caused by the edges of the crack moving.

**Treatment-** Superficial cracks require regular trimming of the hoof and applying shoes will help to stabilise it. If it is deep and/or infected it will require veterinary and farrier attention.

### Hoof Prick/Nail Bind



**Cause-** A nail which has penetrated the sensitive laminae of the hoof

**Symptoms-** Usually immediate signs of pain, lameness, if the nail is removed immediately there may be a small amount of blood

**Treatment-** If recognised immediately the area should be flushed with an antiseptic solution. Infection may develop in cases not identified resulting in the hoof needing poulticing to draw out the infection and veterinary attention.

### Abscess



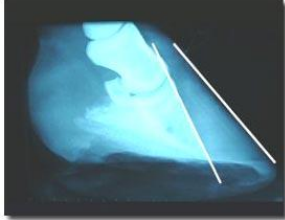
**Cause-** Infection gaining entry into the sensitive structures of the hoof. This causes inflammation and pus causing an increase in pressure in the hoof which in turn causes pain

**Symptoms-** Developing lameness, foot feels warm, horse may be reluctant to bear weight on that leg, pus may be evident in abscesses which have burst. Abscesses can burst through the sole or through the coronet band.

**Treatment-** The site of infection can be located with hoof testers and a farrier will need to make an opening for the pus to drain, the hoof will need to be kept bandaged with treatments of Epsom salts or animalintex to draw out the infection. Veterinary attention may be needed in severe cases.

## Hoof Injuries (cont.)

### Laminitis/Founder



Pedal bone Rotation-  
The white lines should be  
parallel



Laminitic stance

**Causes-** Normal blood flow to the sensitive laminae in the hoof is disturbed which causes cells to become damaged and die. This induces inflammation which causes pain and swelling. It can cause the pedal bone in the hoof to rotate and in severe cases, push through the sole. This condition may be brought on by over feeding, over weight, excessive weight bearing (due to lameness in other limbs), excessive work on hard ground, trauma, colic, diarrhoea, retained afterbirth, surgery.

**Symptoms-** Reluctance to move, stands hind legs well under body and weight rocked back onto the heel of fore legs, hot hooves, pounding pulse in the fetlock joint, increase in vital signs.

**Treatment-** Veterinary attention and farriery assistance is of paramount importance. Whilst waiting for the vet the hooves and lower legs can be hosed. Keep the horse quiet.

The underlying cause will need to be identified to prevent re-occurrence.



## Identifying Lameness

Lameness or a horse “being lame” means that the way in which the horse moves has become abnormal to avoid pain or soreness. The causes of lameness are numerous some examples include hoof infections, hoof cracks and tendon strains. The most common areas of a horses’ body that will develop lameness is the legs i.e., tendons, fetlock, hooves and joints but also lameness come from the back and shoulders (e.g., from poorly fitting saddles etc).

In detecting where the lameness is coming from you will be able to determine what course of action you will take. Lameness symptoms can include:-

- Usually the first symptom to be noticed in a lame horse is an irregular pattern of movement i.e., limping. Lameness will show up clearer in walk or trot than in canter.
- Because the horse is limping the movement of the head and neck will be altered to compensate for the way the horse moves to avoid discomfort. The head will bob downwards when weight is transferred onto the painful leg and bob upwards when weight is transferred back onto the sound (good) leg.
- Resting a leg or reluctance to bear weight on a leg/s. The different way your horse stands can help to identify the lameness problem. A horse which leans backwards transferring most of its weight onto the hind legs with the forelegs outstretched is common of horses with laminitis (see image on previous pg).
- Look for heat, swelling or broken skin.
- Changes in behaviour. For example a horse which is naturally exuberant will become quieter if they find pain in movement.

Determining hind leg lameness from front leg lameness can be a little trickier. One method is to trot the horse up and down a gentle slope. If there is lameness going up the slope the horse is more likely to be lame in a hind leg. If there is more lameness travelling down the slope it is more likely to be in a front leg. Also hind leg lameness may be evident if the horse steps short with a hind leg and drops the hip.

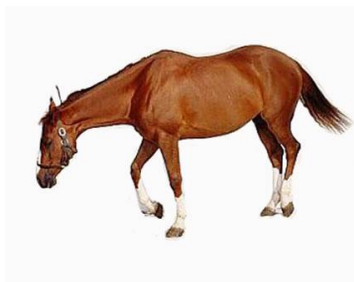
Another method of helping to determine the origin of lameness is to use straight lines and circles. Sometimes lameness will show up on circles or turns and corners. If this is tested under saddle (sometimes a horse will become sore during work) ensure that the rider allows the horse enough rein so as not to interfere with head movement and carriage, this is also important when leading if the horse is “trotted up” (trotted around usually in a straight line for an observer to determine lameness).

“Trotting up” a horse.  
Notice how the handler has allowed the horse plenty of length of rein.



## Illnesses

### Colic



This is a term given to abdominal pain and can have many different causes.

There are a few different types of colic:-

Spasmodic- which is pain cause by spasm of the wall of the intestine.

Impactive- this type is cause by impaction of food in the large intestine.

Gaseous Distension- gas which has been trapped in the intestines.

Intestinal Catastrophy- commonly known as twisted gut, where the intestines have become twisted or rotated.

**Causes**- teeth defects, worm infestations, ingestion of sand, sudden changes in diet, lush grazing, large intakes of water whilst hot, stress, feeding too soon after exercise.

**Symptoms**- sweating, frequently lying down and getting up, kicking at the abdomen, turning to look at flanks, rolling (with can be violent in serious cases), reduced amount of manure, digestion of straw bedding.

**Treatment**- Seek veterinary attention. Remove items the horse can become entangled in (feed bins, water buckets), in less violent cases the horse can be walked gently for a few minutes at a time, the horse can be allowed to lie quietly but try to restrict rolling. Monitor vital signs whilst waiting for the vet.

Colic can be life threatening because of the serious effects it can have on the intestines for example, distension (bloating), intussusception, (where part of the intestine moves into itself like a telescope) and impairment of the blood supply to the intestinal wall.

## Illnesses (cont.)

### Strangles



Is highly infectious and mainly affects young horses but animals of an older age can still be affected. It affects the upper respiratory tract and is transferred easily through nasal discharge and pus from infected horses.

**Causes-** A contagious infection caused by bacteria called *Streptococcus equi*. Inhalation or ingestion of the germ causes infection which will affect the pharynx and lymph glands in the lower jaw/throat region.

**Symptoms-** Fever, poor appetite, stiff head carriage, difficulty swallowing, soft cough, a large hard swellings behind and beneath the lower jaw which will be painful. This swelling may burst (or require draining by veterinarian) which will release pus. A nasal discharge which starts as being watery will become a thick pus.

**Treatment-** Isolate the horse and seek veterinary treatment. Strict hygiene measures will need to be adopted and soft feed for ease of swallowing will be needed.

Prevention is better than cure, keep up to date with regular vaccinations.

## Illnesses (cont.)

### Azoturia/Tying Up



Also sometimes called *Equine Rhabdomyolysis* and *Monday Morning sickness* it affects the muscles in the loins, quarters, thighs of the hind quarters and occasionally the shoulders.

**Cause-** Electrolyte imbalances, nutrient/mineral deficiencies. The problem particularly occurs in horses on high grain diets at the start of exercise after a day off, stress

**Symptoms-** Mild hind limb stiffness which may vary to a total reluctance to move, sweating, pain, muscles may feel very firm, loss of gait impulsion (felt by rider if being ridden), increased heart and respiration and possibly temperature, dark discolouration of the urine

**Treatment-** If exercising, cease work, remove gear, cover the hind quarters, keep the horse still and quiet and seek veterinary attention.

## Wounds

The severity of open penetrative wounds will depend upon the location of the wound and the body parts involved.

### Lacerations/Tears



A long wound with jagged edges and irregular shape. They usually result in flaps or tags of skin. The amount of bleeding will vary.

Horses getting caught on protruding, gate hinges, nails, posts and wire will cause this sort of injury.

### Cuts/Incisions



These have clean, straight edges and usually are short in length. Bleeding will depend on the size of the blood vessel damaged.

Sharp edges, such as metal can cause this type of wound

### Punctures



Usually more serious than they appear as they enter into soft tissue at a variable depth. These wounds will have bleeding and pose the risk of infection due to the entry of a foreign body.

These wounds can be caused by bites, staking on fences or jumps, treading on nails.

Superficial wounds are wounds which the top layer of skin is scraped off.

### Abrasion/Graze



These usually result from rubbing or scraping against an object and only involve the top layers of skin.

### Sores



A lesion on the skin, which can vary in size



## Injuries

### Bowed Tendons



**Causes-** Incorrect bandaging, poor conformation, hard fast work, hard fast jumping, fast work over uneven grounds.

Forelegs are more commonly affected

**Symptoms-** Lameness, swelling and pain in the tendon region, heat.

**Treatment-** Hose with cold water, restrict movement, use a support bandage for the other leg (not the injured leg), seek veterinary attention.

### 'Bleeders'



A 'bleeder' is a horse which bleeds from the nostrils during or after exercise with the blood coming from vessels within the lungs

**Causes-** Strenuous exercise

**Symptoms-** Blood visible from one or both nostrils

**Treatment-** This type of ailment occurs mostly in racehorses which usually results in the horse being banned from racing. There is no definite treatment though these horses are still suitable riding mounts for many disciplines.



## Other Signs of Ill-Health

There are other signs a horse may exhibit which may indicate poor mental health or boredom.

### Wind-sucking/Cribbing/ Crib Biting



Wind-sucking is when the horse swallows air into the gullet and then is returned to the throat for expiration in a burp like manner.

Cribbing or Crib Biting is wind sucking but when the horse has learnt to grasp an object with the top incisor teeth to aid in sucking in air.

The exact reason for this has not yet been established. Collars are available to help minimise this habit but they rarely eliminate it altogether.



Preventative collar



Worn incisors from Crib Biting

### Weaving



This is usually a sign of boredom or anxiety in stabled horses and may result in excessive wear of hooves or shoes.

It involves the horse shifting its weight to and from each front hoof with its head and neck moving from side to side.

'V' shaped grills can be fitted to stable doors to help minimise the habit.



## Extension Lesson

To improve your skills and gain knowledge in this area:-

- offer to assist another horse owner/person in the treatment of a horse with a health concern.

### **And/Or**

- spend a day with an equine veterinarian participating/onlooking whilst they attend to horses.

## Recommended Reading

The BHS Veterinary Manual

P. Stewart Hastie

Veterinary Notes for Horse Owners

Captain M. Horace Hayes

Foot Steps

Sally Hinton & Joan Eccleshare

## References

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The BHS Veterinary Manual

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<http://en.wikipedia.org/wiki/Urticaria>

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