Hampden Equine
Veterinary Practice
Caring for horses

Golden Oldies

A Guide to Caring for the Senior Horse

Caring for the senior horse

Like humans, horses and ponies are living longer with the help of advances in veterinary care. A horse is classed as a veteran from fifteen years and over, but that does not mean they have to retire. Many senior horses continue to compete and lead very active lives well into their twenties. However, as the years pass your horse is likely to show obvious signs of ageing?

Normal signs of ageing are:

- Grey hairs (mainly around eyes and muzzle)
- Drooping of the lower lip
- Loss of muscle tone
- Deepening of the hollows above the eyes

However, your horse may also show more serious ageing signs and it is advisable to contact your vet if you notice any of these.

Abnormal signs of ageing:

- Weight loss
- Loss of appetite
- Difficulty eating
- Musculoskeletal stiffness and a decrease in joint flexion
- Exercise intolerance/fatigue
- Changes in hair coat

Annual health check

An annual health check provided by your vet will ensure your horse is checked over thoroughly and allow them to diagnose any problems early.

What does an annual health check include?

- Body condition score
- Dental check
- Listen to heart and lungs
- Eye examination
- Blood sample - general screen which often includes assessment of red blood cell count, white blood cell counts, protein levels, liver and kidney enzymes
- Worm egg count

Weight loss

Weight loss is one of the most common and visible signs in the senior horse that something isn't right. Monitoring their weight is important to keep on track of their management and to help detect illness earlier.

Body condition scoring (BCS)

The most effective way to monitor your horse's bodyweight and condition is by body condition scoring. The BCS is a graded scale (between 0-5, with 2.5 being ideal condition) and assesses the amount of fat covering present on the neck, withers, shoulder, ribs, loin and tailhead.

For more information on how to BCS, please use the following link to the Blue Cross:
bit.ly/38mCDuD

Weighing your horse

In an ideal situation, you would weigh your horse on an equine weighbridge to get an accurate weight. However, if this is not possible or accessible then a weigh tape can be used. Make sure the horse is standing square and on a flat surface. The tape needs to be positioned around the girth area and just behind the withers. Take the measurement where the end of the tape meets the weight.

Common causes of weight loss:

- Dental problems
- Worms
- Cushing's disease (PPID)
- Diet

Less common causes:

- Liver damage/disease
- Intestinal disease
- Kidney dysfunction/disease
- Infections
- Tumours

Dental disease

One of the main causes of loss of condition is dental disease. Dental care is extremely important to the health and welfare of your horses. As herbivores they rely on the efficient grinding mechanism that is their teeth to obtain adequate nourishment.

What are the signs of a dental problem?

Clinical signs of dental disease are variable and sometimes there may be no obvious signs at all.

Common indicators of dental problems:

- Quidding – when a horse is unable to completely chew their food and spit out partly chewed food
- Halitosis – bad breath
- Behavioural issues
- Chewing on one side of the mouth
- Lack of appetite

Equine teeth are continually erupting and as the mouth matures the teeth are prone to issues. As horses get older, their teeth have a much shorter reserve crown (the portion within the tooth socket) and eventually the horse runs out of tooth, which can cause numerous problems.

It is therefore very important to have regular check-ups, to ensure your horse's mouth stays healthy.

Diastemata

Diastematas are abnormal spaces between teeth where food becomes trapped and is a very painful condition. Stagnation leads to gingival inflammation and localised periodontal disease. Displaced teeth and overgrowths may predispose to diastemata and it is common to see multiple diastemata present.

Types of diastemata:

Closed (valve) diastema

- Due to the shape, they tend to trap food
- Periodontal disease is severe
- They can often be mechanically widened by your vet or EDT

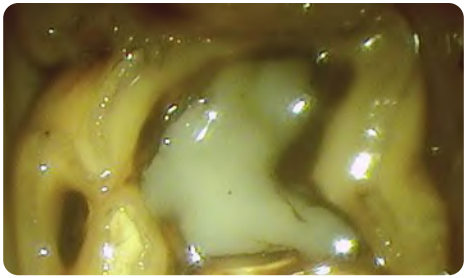
Open diastema

- Food can pass in and out of the space
- Periodontal disease is often less severe

Dental disease *(continued)*

Diastemata

Dental caries (tooth decay)
Dental caries are a common problem and are caused by the destruction of calcified dental tissue by bacteria. It most commonly affects the infundibulae of the upper cheek teeth and if severe may require dental treatment, which may include filling the cavity or extraction of the tooth.



Dental caries - filling the cavity

Smooth mouth
This usually affects senior horses and occurs when both the enamel and dentin wear down at the same time. This causes the cheek teeth to become smooth and less effective at grinding food which can result in the horse losing weight or getting choke. Sadly, smooth mouth cannot be rectified and so feeding soft food is required.

Regular dental check-ups
In recent years equine dentistry is an area of veterinary medicine in which there has been many significant advances.

With the myriad of dental problems which may be found in the geriatric patient, regular examination is all the more important. Making changes to the diet can also be extremely beneficial, providing feedstuffs that can be digested easily, sometimes even without the need to chew.

Dentistry should only ever be carried out by a vet or a qualified equine dental technician. The dental exam should not be simply thought of as a tooth rasp - it is an examination first and foremost. Compare this with your own visits to the dentist.

There are a number of benefits to regular dental check ups:

- Early detection of problems leading to timely treatment
- Maintenance of weight
- Potentially improved performance and temperament

Nutrition/diet

A key factor in maintaining a healthy senior horse is nutrition. As horses get older their digestive efficiency reduces, which means they absorb less protein and nutrients from their food.

There is no one-size-fits-all option, so what you choose to feed should be adapted depending on their health and condition.

If your horse is no longer able to eat hay, you will need to provide fibre through a hay replacer. Horses with dental problems may also require a special diet as they may find chewing difficult. Therefore, you will need to provide fibre that your horse can chew, to ensure they get the nutrients they need.

Horses with PPID usually require a low sugar and starch diet to reduce their risk of laminitis, but again this depends on the individual horse's requirements.

Colic

Whilst senior horses are more susceptible to certain types of colic such as impactions and lipomas, **senior horses have no difference in survival and recovery from surgical colic problems than younger horses.**

Some owners may be concerned that senior horses have a poorer chance of survival with colic surgery, perhaps due to struggling to cope with a general anaesthetic or with the recovery. However, colic surgeons and medics have long suspected that senior horses cope well with colic surgery and general anaesthetics which a scientific study (DOI: 10.1111/j.2042-3306.2010.00085.x) has confirmed. This study showed that, even though senior horses were more likely to have a colic problem requiring surgery than

a younger horse, when they undergo colic surgery under general anaesthesia in a veterinary hospital, senior horses are just as likely to survive as younger horses.

Laminitis

Laminitis is a common but potentially preventable disease in horses. As horses get older they may become more susceptible to laminitis due to underlying endocrine (hormonal) disease such as PPID. Laminitis is a painful and potentially devastating disease that causes pathological changes in the anatomy of the foot that can lead to long lasting, crippling changes in function or even, in some cases, such severe pain that euthanasia is required.

Simply put, laminitis is inflammation of the laminae and is caused by damage to the bond between the pedal bone and the hoof wall. This bond comprises of the sensitive laminae on the bone side interdigitating with the insensitive laminae on the hoof side.

The classical signs of laminitis are easily recognised and include:

- Weight shifting
- Reluctance to move
- Rocking back onto the heels
- Increase in hoof wall temperature and digital pulses
- Stiffness at walk especially on turning
- Discomfort when being

However, individual cases may show all, some, or none of these signs. Worryingly the development phase of laminitis will have been well under way for up to 40 hours before any clinical signs are seen. As your horse begins to show clinical signs it is said to be entering the acute stage. If you do see any of these clinical signs it is imperative to contact your vet as soon as possible. The sooner the progression of this disease can be stopped the greater the likelihood that your horse will return to athletic function.

As the disease progresses the inflamed laminae lose strength and with it the ability to maintain the position of the pedal bone. This stage is known as the chronic stage and can last indefinitely. It can result in continuous low-grade lameness, and in severe cases sloughing of the hoof wall or the pedal bone can rotate to such an extent that it prolapses through the sole.

Treatment

The immediate concern should your horse or pony start to show signs of laminitis is their comfort, so contact your vet immediately. Your vet will prescribe pain-relieving anti-inflammatory drugs. This may or may not be combined with a mild sedative to ensure your horse stays calm and quiet, encouraging them to rest.

You can help the comfort of your horse by providing a stable for box rest, with a deep shavings bed, to prevent excessive walking and movement (that may result in increased forces travelling through the laminae). This reduces the risk of rotation or sinking of the pedal bone.

Depending on the case, your vet may apply frog supports or padding to the feet to provide greater support for the pedal bone and help improve your horse's comfort level. Your vet may also take radiographs (x-rays) to assess the position and angle of the pedal bone to check for rotation or sinking. These may also be shared with your farrier and used to guide any recommended remedial farriery work.

Although this treatment and management will help improve the clinical signs of laminitis it will not treat the underlying cause, and treating this cause is imperative to prevent recurrence. Treatment of laminitis can be a long process and in severe cases is not always successful. Prompt treatment and diagnosis of any underlying endocrine (hormonal) disorders can make a huge difference to the outcome so if you are in any doubt speak to your vet sooner rather than later.

Watch that your horse does not become overweight. You should carefully monitor your horse's diet. Restrict their grass intake where necessary by strip grazing using electric tape or using a muzzle. Monitoring hay intake by weighing nets may also be required.

Cushing's (PPID)

When older horses and ponies are prone to laminitis it is important to test for PPID, along with other endocrine diseases such as equine metabolic syndrome (EMS).

Cushing's disease can be seen in any horse but more often it is seen in senior horses and ponies while being rare in younger horses. It is due to degeneration of the pituitary gland at the base of the brain. Dysfunction of this gland results in higher than normal levels of adrenocorticropic hormone (ACTH) and other hormones, which through resulting changes in the body, can lead to an increased risk of laminitis. A blood test carried out by your vet can diagnose this condition and enable treatment and management regimes to be instigated, if appropriate.

What can cause PPID?

The condition is due to over-activity of one part of the pituitary gland resulting in the excessive release of certain metabolically active proteins and hormones. The pituitary gland is located beneath the brain and releases its products in response to signals from nerves that originate in another area of the brain. Damage to these nerves causes the pituitary to enlarge and produce excessive quantities of substances including hormones, such as ACTH.

The disease progresses gradually as the nerves to the pituitary slowly degenerate. It is unknown how the increases in pituitary hormones result in many of the clinical signs that are seen.

Clinical signs

- Laminitis
- Hirsutism is the term for excessive hair growth or abnormal retention of the hair coat in the summer and PPID is the only condition that causes this abnormality
- Abnormal fat deposition and insulin resistance may develop in up to 60% of horses with PPID. A common site of increased fat deposition is around the eyes
- Increased drinking and urination may occur
- Increased sweating may be seen, even in horses that don't have an excessively long hair coat
- Lethargy, or a more docile temperament, may be observed and usually resolves with treatment
- Seizures, weakness, blindness and collapse are seen rarely in advanced cases and are thought to be the result of the enlarged pituitary gland putting pressure on other areas of the brain
- Infertility may occur in mares as a result of altered hormone production
- Infections may occur more commonly in horses with PPID because some of the hormones released with the condition suppress the immune system

Treatment

Fortunately, effective treatment for PPID is available in the form of pergolide and this drug has been licensed specifically for horses. Pergolide stimulates receptors in the brain and thereby replaces the activity of the damaged nerve supply to the pituitary gland. The goal is to reduce hormone production to normal levels.

The dose range is wide so the improvement in clinical signs and ACTH levels is often used to determine the best dose rate for each horse. Pergolide is considered a safe drug. The most common side effect is reversible loss of appetite when treatment is started. This often resolves when pergolide is stopped and then re-started at a lower dose, before being increased more gradually until the ACTH level is within the normal range.

Horses with PPID require good parasite control, dental and hoof care. Those with dental disease may benefit from diets that are designed for older animals and are easy to chew. Horses with excessive hair coat benefit from regular clipping.

Disease control and prevention

PPID is a natural degenerative condition and therefore there is nothing that can be done to prevent it. Early treatment with pergolide may slow the progression of the disease, but again this is unproven. Careful weight management earlier in life, however, will reduce the risk of EMS and the associated laminitis risk.

With good management there is no reason why horses with PPID cannot live a long and normal life and continue in normal work.

Equine Asthma

Current theories suggest that equine asthma (previously known as RAO or COPD) is a result of the lung's hypersensitivity to inhaled antigens causing both allergic and inflammatory responses.

The exact cause is still not confirmed, but the most common triggers are mould, dust and endotoxins in hay and straw.

This disease can affect any type of horse, although it usually gets worse as the horse gets older.

Diagnosis of equine asthma can often be made based on the clinical signs and the horse's history, but occasionally further tests are needed to confirm the diagnosis.

An endoscope may be used to visualise the upper respiratory tract and the windpipe, and samples can be taken from deeper in the lungs for analysis under a microscope.

Treatment

- Environmental management is essential
- Turn out as much as possible
- Provide good stable ventilation if your horse needs to be stabled
- Feed haylage or soaked hay
- Use shavings or paper instead of straw
- Oral or inhaled medications such as steroids may also be prescribed by your vet

Heart problems

There are two common heart problems seen in the senior horse - murmurs (abnormal heart sounds) and arrhythmia (disturbances in heart rhythm)

Murmurs and arrhythmias are relatively common with many not causing any concern. However, it is important to determine their cause and severity.

Signs of a heart problem:

- Loss of condition
- Becoming tired easily/exercise intolerance
- Difficulty in breathing
- Shortness of breath
- The horse collapses

Heart problems can be diagnosed by a clinical examination from your vet. Further investigations may be required such as an ultrasound or electrocardiogram (ECG).

Treatment

Some murmurs and arrythmias can be managed with veterinary intervention. Please speak to your vet for more information.

Eyes

It is good practice to check your horse's eyes every day to spot any problems.

Signs your horse may have an eye problem:

- Closed eye/blinking a lot
- Watery eyes
- Discharge
- Cloudiness
- Sensitivity to light
- Swelling and or redness
- Spooking (especially in poor light)
- Behavioural changes

Common equine eye problems in the senior horse:

Cataracts is a clouding of the eye's lens, which lies behind the iris and can cause partial or complete blindness. Your vet will be able to diagnose cataracts by using an ophthalmoscope to look inside your horse's eyes as well as checking for underlying causes such as uveitis.

Treatment

There is no medical treatment to cure cataracts. Treatment, if indicated could be surgery although this is rarely performed in horses due to complications.

Eyes

Uveitis means inflammation of the uveal tract, an internal structure of the eye made up of the iris, ciliary body and choroid. It can occur as a primary disease or secondary to other conditions affecting the eye such as trauma or corneal ulcers.

Some horses will develop equine recurrent uveitis (also known as moon blindness). As the name suggests this is a recurring condition where the horse suffer from repeated episodes of uveitis. The severity of the condition and the interval between episodes varies with each individual.

Treatment

If not treated promptly and aggressively uveitis can lead to long term complications such as adhesions between the iris and cornea and in very severe cases, blindness. The aim of the treatment is to reduce pain and inflammation within the eye and to dilate the pupil in order to provide pain relief and to prevent adhesions.

Treatment for uveitis:

- Topical steroids
- Topical atropine: this dilates the pupil and is given to effect until full dilation is achieved, this can be up to four times daily. High doses of atropine can slow the movements of the gut resulting in impaction colic, therefore the minimal dose possible is used to achieve the required result
- Systemic anti-inflammatory medication such as phenylbutazone or meloxicam

Horses must be kept out of bright light at all times during treatment as the pupil is not able to constrict in response to light as would naturally occur, due to the effects of the atropine.

Always call your vet if your horse has a problem with their eye – you can never be too careful with your horse's eyes.

Arthritis *(Degenerative Joint Disease)*

Arthritis (DJD) is a very common problem affecting many horses, especially senior horses. It can be a painful disease that causes inflammation within the joint and commonly affects hocks, pasterns, front fetlocks, and coffin joints although any joint may be affected.

DJD describes a process in the joint where the joint cartilage is progressively destroyed and changes occur in the associated bones and soft tissues.

Signs of DJD:

- Lameness
- Reluctance to work
- A change in behaviour
- Stiffness
- Muscle wastage
- Effusion (swelling) of the joints
- Reluctance to lift limbs for farrier

How to diagnose DJD:

- Clinical examination by your vet in hand and possibly under saddle
- Flexion tests
- Nerve blocks
- Radiographs

Further diagnosis:

- MRI
- Scintigraphy (BSC)
- Arthroscopy

DJD can't be reversed so good management is essential to keep the horse comfortable and reduce the pain.

How to manage DJD:

- Managing the horse's weight is essential. Overweight horses put additional strain on their joints
- If possible, gentle and regular exercise can be beneficial
- Regular turnout to keep your horse moving
- Good farriery is essential
- A joint supplement can help to manage DJD (ask your vet for advice on the best one)
- Anti-inflammatory drugs, prescribed by your vet, can help to reduce the pain
- Intra-articular medication (medications injected into the joint)
- Other systemic medications such as bisphosphonates or pentosan polysulphate

With medical treatment and management many horses with DJD can continue to lead active lives.

Hoof Care

The old saying "no foot, no horse", is still very true today.

Senior horses are prone to foot problems such as foot imbalances, poor horn quality and sand cracks.

How you can maintain healthy hooves:

- Get to know your horse's feet – examine them every day to check for any heat, thrush, cracks or infections
- It is important to pick out your horse's feet every day to remove stones and dirt
- During dry weather applying a hoof moisturiser a few times a week will help to prevent cracks
- If your horse is shod, check regularly for wear and tear, loose nails and clenches
- Your farrier should visit every four to six weeks if your horse is shod, and every six to ten weeks if they are barefoot
- Ensuring your horse's feet are kept well trimmed and balanced reduces the likelihood of foot lameness

Keeping warm

Senior horses will find it hard to keep warm during the winter months and so they will most likely need a rug and some sort of shelter. Rugs are great for the senior horse as they can lose weight quickly if they become cold. Please note that horses diagnosed with PPID may get too hot in a thick rug, due to their thick coats.

Make sure you remove your horse's rug regularly to monitor their body condition score and change the rug according to the weather conditions.

Providing shelter, whether it be a stable or field shelter is also important as it will offer protection from the weather – sun, wind and rain.

Riding

There is no set age when to retire your horse. Some senior horses can be ridden well into their twenties, if they are managed correctly. If you are still riding your senior horse, discuss your riding plan with your vet, as they can advise you if they are able to safely do the work. The chances are your horse will at least benefit from some regular light exercise.

It can be a difficult decision to decide when the time is right to retire your senior horse. The most important points to consider are their health and whether staying in work is in their best interest.

Signs you should stop riding your horse:

- Are they starting to trip more than usual?
- Are they tiring more than normal?
- Body condition – are they losing weight or muscle condition?
- Are they struggling to keep up with other horses on a hack?
- Has their temperament changed?

Vital signs

The main vital signs for horses are temperature, heart rate, respiratory rate and mucus membrane colour. Knowing the normal range of your horse's vital signs and how to take them will help you to monitor their health and can give you an important early warning that something could be wrong.

How to measure your horse's respiratory rate

Your horse's resting breathing rate should be around eight to twelve breaths per minute.

As your horse breathes in and out, the chest and the abdomen will move. One movement in and out is one respiration. You may also be able to feel the air coming out of their nostrils. Count the number of breaths over one minute and also listen to his breathing – it should sound clear and the breaths should be even and not too shallow or too deep.

How to assess the colour of your horse's mucous membranes

Your horse's mucous membranes (gums) should be moist and a healthy salmon pink colour. The capillary refill time of your horse's gums will give you an indication of the efficiency of their circulation.

To assess the capillary refill time, press one finger on the gum above the top front teeth and then remove it. It should take no more than two seconds for the area to turn from white back to pink.

How to take your horse's temperature

Tie up your horse and gently insert the thermometer into the rectum. Hold it there for one minute or until the thermometer beeps.

Your horse's resting temperature should be between 99-101°F / 37.2-38.3°C.

How to take your horse's digital pulse

Palpation of your horse's digital pulse in your horse's lower leg can be useful to detect if there is inflammation in the feet, often associated with laminitis.

Feel for the cord-like structure by gently placing your first two fingers horizontally behind the pastern bone on either side, just where it joins the fetlock. Alternatively, the pulse may be more obvious slightly further up on either side of the back of the fetlock.

It is important to use your fingers not a thumb (due to your thumb's pulse).

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