

Care of the elderly horse or pony

Signs of ageing

Ponies seem to “age better” compared to horses, representing 71% of animals aged 30 years or older. On average, owners report that they start noticing signs of ageing at around 19 years. The most **common signs of ageing** include stiff joints (42%), increasing grey hairs (33%), loss of muscle tone (24%) and deepening of the hollows above the eyes (22%) (Fig. 1).

Common conditions of the elderly horse or pony

Several diseases are more common in elderly animals and increasing age has been identified as a risk factor for conditions such as **pituitary pars intermedia dysfunction** (PPID, also known as Equine Cushing’s disease), **chronic laminitis**, **recurrent airway obstruction** (also known as COPD or “heaves”), certain **tumours** and **heart murmurs**. In two large studies where veterinary examinations were performed on hundreds of horses aged 15 years and older, the most common conditions diagnosed were dental, musculoskeletal, respiratory, cardiac and endocrine diseases. Elderly animals seldom have a single disease, but instead have a unique combination of multiple disorders. Many common health conditions in geriatric horses can be treated or managed successfully, especially when diagnosed early in the course of the disease.



Fig. 1 An elderly horse showing the common visible signs of ageing.

1. Dental disease

Dental disease is the main oral disorder of horses, and is highly prevalent in elderly animals. Although owners frequently report clinical signs of dental disease, and the prevalence of owner-reported dental problems increases with age, there are **high levels of undetected dental disorders** in elderly horses. Common dental conditions include tooth loss, gaps between the teeth (diastemata), periodontal disease and abnormalities of wear such as focal overgrowths (hooks), wave mouth, shear mouth and smooth mouth. While many horses will suffer dental disease without showing any obvious clinical signs, conditions such as diastemata and periodontal disease are likely to be very painful and can result in weight loss and compromise welfare considerably.

2. Musculoskeletal disorders and lameness

Lameness is one of the **most frequently reported problems** and remains one of the most common reasons for euthanasia of geriatric horses, yet little information regarding risk factors or even types of lameness affecting aged horses is available. Muscle stiffness and lameness are often reported by owners, but frequently a specific cause for these signs has not been identified. Many of the musculoskeletal conditions seen in aged horses result from the culmination of “wear and tear” during years of athletic activity, confounded by the animal’s individual conformational abnormalities. Rather than directly causing disease, it is possible that ageing changes in the musculoskeletal system contribute to the development of disease by increasing the effects of other risk factors including genetic factors, abnormal biomechanics and joint injury.

The most common musculoskeletal condition of aged horses is **osteoarthritis**, with 40% of diagnoses classified as degenerative disease (osteoarthritis or degenerative joint disease). Osteoarthritis is also the most common owner-reported disorder in elderly horses. Although changes in exercise regimes might be

required to manage the disease, many horses with osteoarthritis continue to perform in a wide range of athletic disciplines. Presence of reduced flexibility of the joint and pain on flexion is commonly considered to indicate a clinically important underlying problem, and horses with arthritis have a lower range of joint motion.

In all cases of musculoskeletal disorders, pain management, **maintaining joint function** and **limiting disease progression** are the primary aims of treatment. Complementary and physical therapies can be used in addition to, or sometimes in place of, medications in the management of musculoskeletal problems in the older horse.

Hoof problems are also very common in older horses and ponies, of which **laminitis** (particularly chronic laminitis) is the most important. Much of the increased risk of laminitis in elderly animals is likely to be associated with PPID, as studies have reported laminitis in 24 – 82% of horses diagnosed with PPID.

3. Endocrine disorders

Pituitary *pars intermedia* dysfunction (PPID), also known as Equine Cushing's Disease, is the most common endocrine (hormone) disorder of older horses and ponies. Recent studies show that around 21% of horses aged 15 years or older have the disease and the prevalence increases with increasing age. While the average age at diagnosis is 19 – 20 years, PPID can affect younger adult animals.

PPID is caused by a **dysfunction** in the middle part of the **pituitary gland**, which is a small gland located near the base of the horse's brain, responsible for regulating many of the horse's hormonal systems. Horses with PPID have age-related degeneration of neurons (nerves) in the pituitary gland and this, in turn, leads to reduced production of a chemical called dopamine which is important in controlling hormone secretions from the pituitary gland. With this reduction in dopamine the normal inhibition of the pituitary gland is lost, resulting in the excessive secretion of several hormones and the associated clinical signs.



Fig. 2 Coat abnormalities can be an indicator of PPID

PPID is a **slowly progressive disease** therefore affected horses will not always show the full range of clinical signs and early or mild cases may show subtle signs that can be confused with normal ageing. Where present, clinical signs can include hair coat abnormalities, ranging from subtle coat changes, such as retaining a few long hairs after shedding their winter coat, to a long, thick (sometimes curly) hair coat which does not shed normally (Fig. 2); repeat episodes of laminitis; lethargy or reduced ability to exercise; loss of muscle; excessive sweating; fat redistribution which can often lead to a pot-bellied appearance; increased thirst and urination and increased susceptibility to infections, such as conjunctivitis and mud fever.

In some cases, the clinical signs alone can be sufficient to be confident of making a diagnosis. In earlier cases, or those with few clinical signs, then diagnosis involves a blood test. Unfortunately, diagnosis cannot be based on routine blood samples and there are a range of different hormone tests available. Blood tests can also be useful in monitoring the effects of treatment. There is only one licensed veterinary treatment available for PPID which contains a drug called pergolide. The aim of treatment with pergolide is to re-establish the inhibitory effects of dopamine on the affected pituitary gland. Treatment is usually life long and tablets are given once daily. The majority of horses will show improvement of clinical signs within the first few weeks of treatment.

4. Respiratory disease

Over a lifetime, older horses can be exposed to more **pathogens** and **allergens** that can ultimately affect lung health. One study found that 16% of all cases in elderly horses involved the respiratory system, making it the 3rd most commonly affected body system. Recurrent airway obstruction (RAO) is the most prevalent respiratory disorder in older horses. While clinical signs such as **coughing** and **nasal discharge** are frequently reported by owners, these signs are often regarded as normal for older horses; however they are likely to reflect an underlying respiratory disease in a considerable proportion of affected animals. The cause of respiratory clinical signs should be diagnosed by a veterinary surgeon in order to rule out infectious respiratory diseases. For elderly animals affected by chronic respiratory diseases like RAO, management changes to maintain a dust-free environment, together with medical treatment where required, can make a huge difference.

5. Cardiac disorders

Heart murmurs are frequently detected as an incidental finding at veterinary clinical examination as few valve problems affecting the equine heart result in clinical signs. However, age has been identified as a risk factor for certain heart murmurs, found in approximately 20 – 30% of middle-aged and veteran horses. Once detected, heart murmurs should be monitored by a veterinary surgeon at regular intervals, however in horses severe progression leading to congestive heart failure is rarely reportedly.

6. Ocular disorders

Repeated episodes of minor trauma and low grade infections lead to **changes in the eye**, sometimes considered 'normal ageing', however the effects of these episodes are often cumulative and the severity of abnormalities increases with age. Although ocular changes are frequently identified in elderly horses, few owners observe visual deficits in their horse. Partial vision loss is difficult to detect in horses especially if it has developed over a long period of time and aged horses appear to cope well with poor sight. However, there may be safety implications associated with continuing ridden exercise in older horses with obvious visual deficits, therefore regular veterinary examinations should be performed in order to monitor any disease progression.

Preventive healthcare for the elderly horse or pony

Exercise, nutrition and routine preventive healthcare measures are important in reducing disease incidence in elderly people. Maintaining the older horse or pony requires careful attention to preventive healthcare, in particular dental care, nutrition, hoof care, wormer administration and vaccination.

As **dental problems** are so common in elderly horses, regular dental examinations (every 6 months) are recommended. It may not be possible to correct dental abnormalities; however the aim is to prevent pain by removing any loose teeth, sharp edges and overgrowths. Horses with severe dental problems may struggle to eat, particularly long forage such hay or haylage, which needs to be considered when formulating their diet (Fig. 3).



Fig. 3 Dental conditions such as diastemata (gaps between the teeth) and abnormal wear can affect feeding ability.

While **weight loss** is frequently reported in elderly horses, **twice as many** older horses are **overweight**. Both weight loss and obesity have significant effects on the health of older animals, and appropriate nutrition is a must for any elderly horse or pony. As with animals of any age, veterans should be fed according to their current body condition and level of exercise. In elderly animals, health status and the presence of any diseases should also be considered when assessing their nutritional requirements. Feeding little and often, by dividing feeds into four or five smaller rations can be useful, particularly for underweight animals. Those with osteoarthritis affecting the neck or forelimbs may find eating from the floor difficult, so using raised buckets/mangers etc. can help to make them more comfortable.

Hoof problems are highly prevalent in elderly horses and ponies, yet with increasing age they are less likely to be shod, and the frequency with which they receive farrier attention is reduced. Even in unshod animals, a check from a registered farrier every 2 months is recommended. Regular farrier checks in older horses and ponies will help management of hoof abnormalities, reducing the risk of them causing lameness or other problems, and farriers play a vital role in the early detection of hoof problems, such as laminitis. Shoeing problems may speed progression of osteoarthritis and correct trimming and shoeing can actually help in the management of arthritis and other musculoskeletal disorders.

Elderly horses are more likely to have **higher worm burdens**, especially if they have PPID, so use of a targeted worming programme, incorporating both faecal worm egg counts and a blood test for tapeworm is recommended when devising a worming strategy for older animals. It is advisable for you to discuss your choice of worming programme with your vet who will be able to devise a tailor-made plan for your horse.

Although the majority of geriatric horses are regularly vaccinated for tetanus and equine influenza, the proportions of vaccinated animals are reduced compared to those reported for the general equine population. Elderly animals have a **less efficient immune system** and they have a reduced immune response to vaccination, therefore reduced vaccination in ageing horses may pose a risk to their health. Additionally, unvaccinated horses play an important role in disease transmission during equine influenza outbreaks, and unvaccinated geriatric horses may have implications for herd immunity.

There is some evidence to suggest that regular health checks may improve quality of life in elderly human patients. However, a smaller proportion of elderly horses and ponies receive an annual routine veterinary visit compared to the general equine population. Annual veterinary visits as part of a recommended vaccination schedule also provide an opportunity for a thorough clinical examination, aiding earlier disease detection.



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