The Golden Oldies

Written by Antoinette Foster Dip Nut Equine Nutritional Therapist and Medical Herbalist and Clinical Nutritionist Erin Romanin ©2018

Aging is a complex phenomenon which is a natural part of life, but chronic disease and illness doesn't always need to be. The average life expectancy of a horse is around 25-30 years although this is far from an indication of their overall health. Like people, horses may or may not develop health conditions as they age, depending on genetics, nutritional status, history and fitness.

As horses get older it is common for things to start slowing down and for them to be not as strong as their younger days. Their digestive system may reduce in function and absorption rates can drop which can reduce their immunity. There may be increased breakdown of their joints and muscles, depending on what they have done throughout their life so far.

Chronic systemic inflammation is a significant part of aging which is commonly accepted in people but not usually discussed in horses. Chronic low-level inflammation throughout the lifespan can occur from a myriad of environmental, genetic and nutritional causes and can contribute to the onset of inflammatory conditions such as arthritis, chronic pain, Cushing's Disease, gastric ulcers and laminitis, just to name a few.

So what can we do about it?

We can look at the areas which we can change, nutrition being the easiest to manipulate. If we start to look at the horses' diet and assess what may cause inflammation, this can be anything that is unnatural for a horse to eat; from bi-products/waste-products, to animal products such as whey and fish proteins. Significant reduction of inflammation can also be achieved through feeding the horse a natural diet and increasing the levels of beneficial nutrients and vitamins which are involved in these processes.

By feeding your horse a high roughage diet (quality hay, long-stem chaffs and pasture) including what they would naturally consume, you will be significantly reducing the levels of inflammation. Similarly, if we were to support our bodies with nutrient-dense wholefoods instead of processed foods.

Although it may be enticing to feed your beloved old friends a warm porridge-like meal this often does more harm than good. Although we have domesticated horses over time, their digestive system remains in its original format of requiring a high roughage content.

For most of the horses' life, their teeth continuously emerge through the gums to replace what is worn away by chewing. There is approximately 2-3 inches of replacement tooth under the gumline. However, when the horse reaches its mid-20s, the reserve is often depleted, leaving them at risk of tooth loss. Tooth loss compromises digestion and their chewing ability, this is the only time where dampening their feed may come in handy as well as choosing softer hays and smaller chopped chaff, so they are able eat easily. This in combination with regular dentist check-ups should keep your horses happy.

Nutritional Supplements

Nutritional supplements can play a role in improving health and wellbeing of the horse. As the horse ages their ability to absorb nutrients declines, therefore supplementation with good quality nutrients can be beneficial in maintaining appropriate levels.

Omega 3 fatty acids can play an important role in reducing chronic inflammation. Although the horse's natural diet has a higher omega 6 (pro-inflammatory) to omega 3 ratio, it is important to note that we have domesticated horses to do things they wouldn't otherwise do in the wild, that may increase their levels of stress and therefore inflammation. This is where supplementing with omega 3s may be beneficial in reducing systemic inflammation. Flaxseed/linseed oil and chia seed oil are the best plant-based sources for horses, it is best to get a nutritionist or veterinarian opinion to see if this may be suitable for your horse. Just be sure to steer clear of any marine based oils as horses are herbivores and not fishermen.

Increasing antioxidants; vitamins A, C and E as well as selenium can assist in decreasing inflammation by improving the rate of detoxification and prevent the accumulation of toxins in the body. Although horses' manufacture their own vitamin C, studies have found that as they age their natural levels of vitamin C decline. Although more research needs to be completed to investigate why this occurs, it gives us more insight into the importance of supplementation.

Exercise

Horses over the age of 12 are more likely to experience pain at a higher level. As horses age, there is a higher risk of injury and pain related conditions, including degenerative joint disease, hamstring injuries, tendon ligament damage, back pain and muscles soreness, to name a few. Managing these pain-related issues is essential to avoid the escalation of other problems. Every horse should be given assistance to prevent and manage pain. This can be achieved by regular massage, Bowen, acupuncture, equine tension relief and natural products which may include some herb and plant extracts. Always look for products that have science behind them and are produced in a HCCAP, Feed Safe facility to ensure quality control and GMP. Products such as the ProflamAid Plus and EquiGesic Plus are a safe and effective way to manage pain.

One part of the ageing process may involve an enlargement of a part of the pituitary gland, termed pituitary pars intermedia dysfunction (PPID, also known as equine Cushing's disease), this can cause great concerns for horse owners and horses alike.

It appears that equine Cushing's disease occurs in approximately 15 to 30% of horses and ponies mostly older than 20. There are particular breeds that tend to be more prone than others such as Morgans. It is a slow progressive disease and can take a number of years before symptoms occur. These symptoms may even begin as early as midlife or in the teenage years of the horse but may go unnoticed or possibly be confused with something else going on.

When at an event we always watch the horses, as there is so much you can learn from their body language, which can be very strong or very subtle. Many horses at competitions appear to have soreness issues ranging from mild to chronic, some horses can manage pain better than others. Just remind yourself that pain is common, and it should be treated seriously, take the pain away no matter how mild and see for yourself how much improvement there is in a happy, pain-free horse.

Although the musculoskeletal system of the horse loses strength as they age, if your horse isn't showing signs of slowing down, then there is no reason to send them into early retirement. Exercise like nutrition is one of the easiest ways we can improve our horses' health. Not only does exercise keep our horses (and ourselves!) fit, there are also many other benefits it provides.

Studies have found consistent low exertion exercise to be the most beneficial for older horses due to the changes in the type of muscle fibre away from the type that assists with endurance exercise. There have been findings of improved insulin sensitivity; this is extremely important to note if your horse has insulin resistance or diabetes. As well as improved immunity and cardiac health in older horses in consistent low intensity exercise.

Both diet and exercise can play a pivotal role in your horse's health and longevity. It is important to

References:

Adams, A. A., Katepalli, M. P., Kohler, K., Reedy, S. E., Stilz, J. P., Vick, M. M. & Horohov, D. W. (2009). Effect of body condition, body weight and adiposity on inflammatory cytokine responses in old horses. *Veterinary immunology and immunopathology*, *127*(3-4), 286-294.

Adams, A. A., Vineyard, K. R., Gordon, M. E., Reedy, S., Siard, M. H., & Horohov, D. W. (2015). 55 The effect of n-3 polyunsaturated fatty acids (DHA) and prebiotic supplementation on inflammatory cytokine production and immune responses to vaccination in old horses. *Journal of Equine Veterinary Science*, *35*(5), 407-408.

McKeever, K. H. (2016). Exercise and Rehabilitation of Older Horses. *Veterinary Clinics: Equine Practice*, 32(2), 317-332.

Williams, C. A., Gordon, M. E., Betros, C. L., & McKeever, K. H. (2008). Apoptosis and antioxidant status are influenced by age and exercise training in horses. *Journal of animal science*, 86(3), 576-583.

