

# "Caring for the Senior Horse"

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Over the past 100 years, there has been a distinct change in the age of the horse population, and how old horses are now living. More than 100 years ago, horses were mainly used for work, and the strenuous workloads took years off their lives. Old horses, which were unable to carry their load, were not kept around just as pets are today.

In today's world, senior or geriatric horses abound. Horses are living and enjoying life longer due to a variety of reasons, including better parasite control, improved knowledge of the nutritional needs of older horses, more efficient vaccines and more horse lovers, who want the very best for their longtime horse.

The most common question asked among senior horse owners is, "At what age is a horse considered geriatric or a senior horse?" This depends on the individual, because some horses just age more gracefully than others. As a general rule, a horse 18 to 20 is entering the golden years. Some remain in excellent health until they die and others deteriorate over time. Because of normal physiological changes associated with aging, geriatrics require special adaptations in health care, environment, and diet.

There are four major factors that affect the ability of the senior horse to stay healthy and maintain proper body condition:

1. Decreased nutrient absorption
2. Poor teeth
3. Environmental and herd stress
4. Disease

Decreased nutrient absorption can be caused by intestinal worms that scar and cause chronic damage to the intestines. Also, the effectiveness of the intestinal lining to absorb nutrients decreases with age, which makes it difficult for nutrients to reach the bloodstream. Research has documented that there is decreased absorption of phosphorus, vitamins, and protein in aged horses. Starch digestion in older horses decreases due to the lack of the enzyme necessary for starch digestion, therefore allowing starch to reach the hindgut.

Microbial fermentation of starch will make the hindgut more acidic, therefore making the horse more susceptible to laminitis and founder. Protein digestion appears to be a problem in geriatric horses, particularly if there is parasitic damage in the digestive tract. Muscle tissue wasting is a common occurrence in older horses.

Dental problems include: normal wear and tear over years of time, tooth loss and deterioration of the biting surface. During normal tooth growth, the root continually erupts from the jawbone; the result is

shorter roots over time. Over time, these teeth can get loose, and it is important not to be too aggressive when floating teeth. Teeth become irregular in the way they wear, therefore this creates problems in chewing. The biting surface can become wavy. In other cases, horses that lose incisors will have trouble tearing the blade of grass away from the root, so pasture may become too difficult to eat.

Hooks and sharp points may cause irritation to the cheek. It is recommended to have a dental exam twice per year for older horses. Tooth problems may cause the older horse to choke more because chewing less will cause the horse to produce less saliva, therefore less lubricant to aid the passage of food to the stomach. Some older horses with bad teeth may require their food to be moistened before feeding.

When teeth fail to masticate food sufficiently, the size of the food particle (particularly hay) is too large for enzymes and microbes to digest it. The result is food passing through undigested.

Environmental and herd stress are difficult for older horses since they do not adapt to changes very well. The relocation of older horses from one farm to another or even one pasture to another can be quite stressful, especially if it means changing pasture mates. The result is loss of appetite, and weight loss. Carefully observe these older horses and adjust feed appropriately.

As horses get older, environmental temperature changes get harder to tolerate. Some sensitivity to cold may be from the reduction of body fat. There are also changes in hormones, which regulates the body's ability to adjust to external heat or cold. Since fiber digestion in the hindgut produces heat, if there is a reduction in the intake of fiber, there will be a reduction of internal heat produced.

During cold weather, a horse will limit the intake of cold water since it lowers internal body temperature. It is common for these horses to colic due to self-induced dehydration and subsequent impaction. By adding warm water to the meal or adding salt might enhance water intake.

Age related disorders and diseases make life more challenging for the older horse and may not be related to previously discussed problems. Some include: chronic infection, adrenal gland atrophy, and liver failure or kidney dysfunction, anemia, lowered disease resistance, and allergic reactions. Skin tumors are also common, particularly on grey horses. Tumors may also be found in the thyroid and pituitary glands, the later of which can result in Cushing's disease. Symptoms of Cushing's



Pain may also cause the horse to lose the desire to eat. The principle pain in older horses is from arthritis. Free exercise is important, and it is advisable to keep older horses out all the time. Stall confinement will cause the joints to become stiff. Attention to proper shoeing may avoid unnecessary stress on joints.

disease caused by a pituitary tumor are: long curly hair coats that shed late in the year in patches, loss of muscle mass, and excessive water intake.

In a study of geriatric horses, over 70% of horses 20 years of age showed subclinical signs of pituitary or thyroid dysfunction. Horses with Cushing's respond to diets that are lower in starch and higher in fat and fiber. Anemia can be treated with B Vitamin supplementation. Chronic infection and lowered disease resistance may respond to Vitamin C supplementation. Diets of horses with liver failure should not contain added fat. Dietary changes for kidney problems would be decreased calcium, therefore eliminating alfalfa. An abnormal high incidence or renal calculi has been seen in aged horses fed straight alfalfa.

Nutrition of the older horse is of the utmost importance. Roughage is a vital part of the equine diet, and without proper amounts, problems will occur. Problems tend to happen when an older horse gets its roughage from hay only. Signs of problems include low hay intakes, rolling or wading hay in the mouth, and observance of balls of hay in feces. Any of these signs indicate that the senior horse should be put on a pelleted diet that includes roughage to help increase intake by the horse. The addition of Vitamin C will aid in improving overall resistance to disease. Also, adding lysine, methionine, and biotin will help in loss of muscle, improve hair coats, and aid in overall health.