



# Care Of The Geriatric Horse

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The term "geriatric" refers to the aging process and the management of conditions associated with old age. The age when a horse is considered to be a "geriatric" depends upon several factors. Aging is a continual process and rate of aging is influenced by: genetics, environment, nutrition, basic health care and use

In the past, aged horses were discriminated against and age was an important factor in setting the value of a horse. In the early days of the horse industry it was demonstrated that the best marketing age was from 5 to 8 years, although horses were most serviceable from 8 to 12 years. After the age of 8, horses were severely discounted in value. At the present many classify aged horses to be 16 to 18 years of age and beyond. Others consider horses of 20 years of age as geriatric. At the present, it has been estimated that about 10% of the U.S. horse population would be 20 years of age or older. And, these horses are often leading healthy and active lives.

## **Reasons For Longer Life-Span And Use**

1. Improved husbandry and longer useful life is the result of increased application of new knowledge in: Nutrition and feeding; Veterinary and farrier care; Fitting and conditioning
2. Behavioral psychology and management
3. Economically feasible to prolong useful life of horse.
4. Changed functions of horses in today's society.
5. Increased personal attachment of horse owners.

## **Life Expectancy**

Horses do not age at the same rate as humans.

Below is an estimated age comparison between the horse and humans.

Equine	Human	Ratio	Equine	Human	Ratio
1yr.	4 yr.	4:1	25 yrs.	70 yrs.	2.8:1
10 yrs.	30-40yrs.	4:1	30 yrs.	80 yrs.	2.7:1
15 yrs.	50 yrs.	3.3:1	35 yrs.	90 yrs.	2.5:
20 yrs.	60 yrs.	3:1			

### **Signs Of Aging**

The average horse will begin to show signs of aging by 16-18 years of age. The aging process will affect each horse differently and is influenced by factors and conditions previously mentioned. These factors include:

Swaying of back,	Drooping of lower lip,
Hollows over eyes deepen,	Poor condition, pot-belly,
Reduced feed utilization,	Lack of muscle tone,
Unthrifty, rough, dull hair coat,	Low sloping pasterns due to loss of ligament and tendon strength,
Slow to shed hair coat,	Graying of hair (eyes/muzzle), and
Incisor teeth elongation,	Stiff movement, lack of joint flexibility.

Unsoundness that affects movement is often one of the first visible signs of aging and arthritis is usually the most common problem observed. Horses should be evaluated by their physical condition rather than their chronological age.

### **Common Problems Of Geriatric Horses**

Dentition (teeth)	Lameness	Tumor
Vision	Parasitism	Kidney
Gastrointestinal Conditions	Reproductive	Liver
Immune Weakness	Respiratory	

### **Physiological Changes In Geriatric Horses**

As horses grow older, care givers should be aware of changes that occur. Such physiologic changes include:

Arthritis	Tumors: common with increasing age
Anemia	
Hyperinsulinemia	Adrenal
Decreased digestibility of: Protein, Fiber, Phosphorus	Thyroid
Decreased intestinal motility	Melanoma (dark pigmented tumor)
Decreased: hepatic, renal and large intestine function	Mesenteric
	Pituitary
	Squamous

### **Nutrition And Feeding**

Special considerations should be given to the nutrition and feeding program of the geriatric horse. Increase dietary levels of:

- Protein: 10-14% (consider amino acid profile)
- Energy: Increase soluble carbohydrates, fats, and oils in diet
- Fiber: Total fiber should be less than 30%
- Minerals: Macro and microminerals should be supplemented. Control excess calcium intake as renal calculi may develop.
- Vitamins: Supplement dietary fat-soluble and water soluble vitamins including vitamin C. Avoid mega doses of vitamins.

### **Feeding The Geriatric Horse**

Due to reduced digestive function, in addition to considering dietary nutrient density and ratios, it may also be necessary to increase the total dietary feed intake 10-15%. However, when doing so consider the fiber content. It should not exceed 30% and the diet should provide more digestible than indigestible fiber.

It is best to provide several small meals rather than one or two large meals daily.

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## Feeds For Geriatric Horses

The diet of older horses should be composed of high quality feedstuffs.

### **Forages**

Hay: Good quality alfalfa, grass, or cereal hay may be fed. However, alfalfa and grass are preferred by most owners. Too much alfalfa may be detrimental to older horses. Consequently, it would be best to feed equal amounts of alfalfa and grass hay.

Pastured: Regardless of quality, pastures will not provide adequate nutrient intake to older horses. When geriatric horses are on pasture it is necessary to provide a supplement to insure all nutrient needs are satisfied.

Cereal Grains: Good quality cereal grains such as oats, rice, barley, and corn may be fed. However, oats, rice, and barley are preferred because their starch is readily digested in the small intestine. The starch of corn is mainly digested in the cecum and may result in digestive upset.

### **By-Product Feeds**

Beet-Pulp: May be used to improve the quality of the diet. The fiber of beet-pulp is highly digestible and can be used to replace a portion of hay in the diet.

Wheat Bran: Provides little or no value in the diet of aged horses and should not be included on a regular basis as it is bulky, fibrous, poorly digested and is low in palatability to most horses.

**Probiotics** such as a yeast culture are often added to the diet to enhance fiber, protein and phosphorus digestion.

**Water:** It is also important to provide free-choice clean fresh water to geriatric horses at all times.

## Processing Of Feeds

The forage in the diet may be chopped, cubed, pelletized, or in a wafer form to facilitate chewing and digestion. All grains provided in the diet should be rolled, crimped, or flaked.

Gruels or wet mashes may be necessary when the grinding surfaces of pre-molars and molars are in poor condition.

## General Management Guidelines For The Equine Geriatric

Consistent quality care is essential for the well-being of the geriatric.

Provide annual dental care.

Monitor body condition every 6-8 weeks.

Do not allow horse to become too thin or fat.

Provide for appropriate exercise. If riding, provide sufficient warm up and warm down time.

Provide adequate shelter.

Maintain an appropriate health program.

Provide farrier care on a regular basis.

Reduce physical and psychological stress.

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