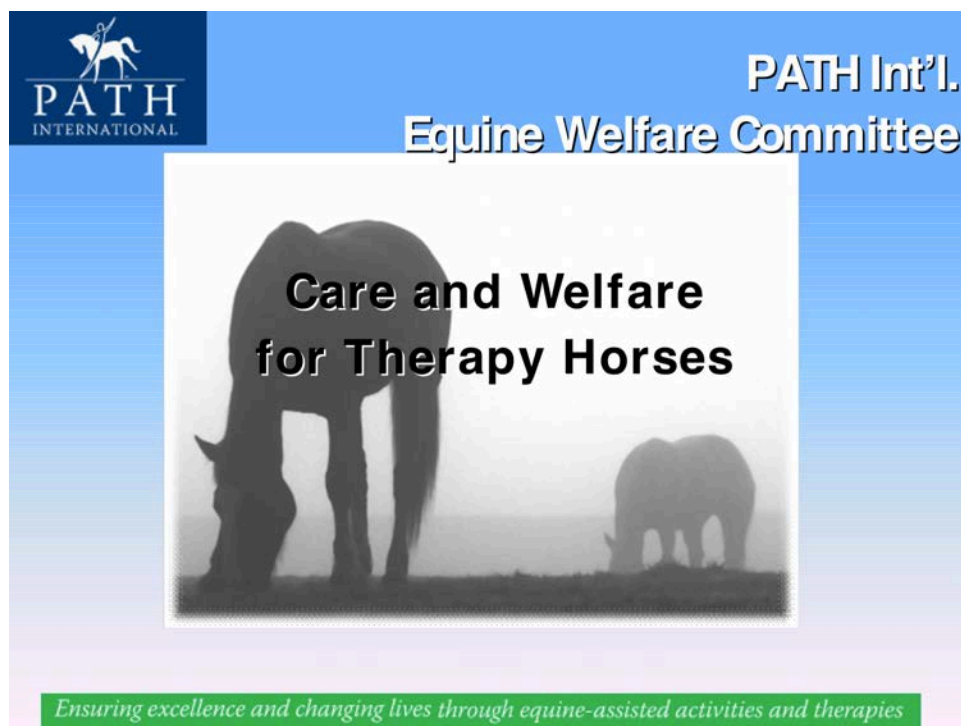


**PATH International
Equine Welfare Committee**

**GUIDELINES
For Equines In
Therapeutic Horsemanship Programs**



**Originally developed by the American Association of Equine Practitioners
(AAEP) Equine Welfare Committee**

**Modified, with permission, by the PATH Intl. Equine Welfare Committee
2012**

**PATH International Equine Welfare Committee Guidelines
For Equines in Therapeutic Horsemanship Programs**

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I. INTRODUCTION


In order to provide guidance for individual and organizations providing equine assisted activities and therapies (EAAT) regarding the care of the horse throughout its life, PATH International and the American Association of Equine Practitioners (AAEP) have developed the following care guidelines. PATH International recognizes and commends the important services these individuals and organizations provide to the horses involved in this work.

While many principles of basic horse care and management apply to all horses, regardless of their situation, horses providing EAAT services may arrive with unique health challenges. For this reason, paid personnel and volunteers who work with equine partners should be experienced in basic horse care and understand the health conditions that require medical attention from a veterinarian.

Equine veterinarians play an important role in the care of the animals that help to provide EAAT services and can offer valuable advice on many aspects of horse care. It is important that horeskeepers establish a good relationship with an equine veterinarian. The AAEP website (www.aaep.org) is a source to locate an equine veterinarian in your area.

The guidelines presented in this manual are for informational use only and are not considered to be legally binding. Because appropriate horse health and welfare care practices vary due to the climate, region, work load and many other factors, the guidelines are intentionally broad. You'll also notice inserts from the corresponding powerpoint produced by the Equine Welfare Committee throughout the guidelines.

Personnel at EAAT programs should be aware of and follow the Standards set forth by PATH International that relate to equine care. These Standards may be found via the PATH International website, www.pathintl.org, and in the current PATH Intl Standards for Certification & Accreditation manual.



PATH Int'l.

Mission
The Professional Association of Therapeutic Horsemanship International (PATH Intl.) changes and enriches lives by promoting excellence in equine-assisted activities and therapies.

Code of Ethics
Do we want to add the PATH Int'l code of ethics or do we want to refer to them here?

Ensuring excellence and changing lives through equine-assisted activities and therapies



AAEP

AAEP



Raising the Standard in Horse Health



Mission

The AAEP's mission is to improve the health and welfare of the horse, to further the professional development of its members, and to provide resources and leadership for the benefit of the equine industry. These principles have guided the AAEP for nearly 50 years in the activities and services it provides.

Locate an AAEP-member veterinarian using the Get-A-DVM directly. Whether you're traveling, relocating or looking for a veterinarian for your first horse, this search engine will help you connect with a practitioner dedicated to the highest standard of equine medical care.



www.aeep.org

Ensuring excellence and changing lives through equine-assisted activities and therapies



Basic Principles of Environmental Ethics

Decisions regarding animal care, use and welfare shall be made by balancing scientific knowledge and professional judgment with consideration of ethical and societal values. Animals must be provided water, food, proper handling, healthcare and environment appropriate to their care and use with thoughtful consideration for their species – biology and behavior – in order to minimize fear, pain stress and suffering.

AVMA

www.avma.org

Ensuring excellence and changing lives through equine-assisted activities and therapies



PATH Int'l. Equine Welfare Committee

Is there a Mission ?

The goal of the task force is to strengthen the care and welfare of horses in PATH Intl. centers through the education of instructors, volunteers, center administrators and equine professionals.

The task force will be developing recommendations, proposals and/or standards to submit to the oversight committees for review and the Professional Association of Therapeutic Horsemanship International (PATH Intl.) Board of Trustees for approval, focusing on opportunities to further educate the EAAT industry.

History

- The Equine Welfare Committee originated first as the Equine Advocacy Committee in July/August 2007 then became the Equine Welfare Task Force in early October 2009
- On January 7, 2011 the Board approved the transition of the Equine Welfare Task Force to the Equine Welfare Committee

Ensuring excellence and changing lives through equine-assisted activities and therapies

II. BRIEF HISTORY OF EQUUS

In the Eocene epoch, some fifty million years ago, the horse was a small animal called *Eohippus* and stood only four hands high. As a many-toed animal, it was able to get a better foothold on soft ground where it lived among the inland swamps. Because grasses did not exist back then, the horse's teeth were only suitable for eating soft foliage.

The *Eohippus* small size made it easily caught by larger mammalian carnivores and therefore its only defense at the time was its instinct for fear and flight. As millions of years passed, evolution created a larger and faster horse, capable of outrunning predators, giving it a higher survival rate.

By the Miocene epoch, approximately 23 million years ago, the environment in which the horse lived became drier, enhancing adaptations in hooves, as well as teeth and digestive system from a changing forage and more fibrous diet.

Pliohippus, the horse that evolved during the Pliocene period some 10 million years ago, remained only 10 hands tall, however this animal now looked like modern day horse. This animal had a horse-like head, mane, body and legs and now had a formed hoof with remaining toes having disappeared.

Terrors for the horse were increased with the emergence of man, nearly one million years ago, whose evolution and tools enabled them to hunt horses for food. In hunting horses for food, however – the smaller and slower horses being easier to hunt - man

and other predators boosted the progression of natural selection and helped evolve a taller, faster, stronger horse. Unfortunately, the emergence of man also presented the horse with less freedom and more health concerns as man started to collect and confine equines to do work for them.

Jump to modern day, and we as humans have evolved enough to realize the value in our partnerships with equines – we are starting to look at equines as “partners” and less as “tools” – we “work with” equines now and “use” them less. Equines assist us physically, cognitively and emotionally and we, in turn, attempt to keep them safe from harm, provide them with food, shelter and companionship. We are still learning how to best do this to suit the needs of *Equus* while considering the evolution and long ingrained instincts of these remarkable partners.

May you always keep learning through the knowledge and “expertise” of *Equus* – they are amazing teachers!

III. BASIC EQUINE CARE - BEHAVIOR/EMOTIONAL NEEDS

When we talk about the emotional needs of horses, we really speak to their psychological needs. Very often, these psychological needs are tied to their physical needs – horses will become anxious if they do not have adequate nutrition, ample fresh water, available shelter from the elements of nature, or safety from predators.

A horse needs, in order to live what we would call a “normal and healthy” life, the following things in this order:

- 1) Self-preservation – to avoid being injured or eaten by a predator;
- 2) Eating and drinking for survival;
- 3) Procreation; and,
- 4) Socialization and routines.

Seems pretty basic and practical, doesn't it? Some would say it may even sound “human” and “natural.”

According to Garda Langley in her book, “Understanding Horses,” a horse's psychological needs include the ease of mind produced by:

- ❖ Satisfaction of its physical requirements;
- ❖ The need for companionship with another horse or horses;
- ❖ Affection;
- ❖ Self-satisfaction or self-esteem;
- ❖ Respect and acceptance from the other members of the herd;
- ❖ Sensory stimulation; and,
- ❖ Sufficient space – not only space large enough to canter, but visual, psychological space.

Horses need to belong to a herd for many related but completely separate reasons, according to Langley:

- ✓ Other horses provide security – safety and increased sense of awareness in numbers;
- ✓ Horses in herds offer reassurance for each other before, during and after a supposed threat;
- ✓ The horse needs companionship to give and receive affection – satisfying a need for acceptance and belonging by its own species;
- ✓ Companionship with other horses also enables a horse to increase its sensory stimulation, develop social skills and forms of communication within the herd – especially true with younger horses;
- ✓ Horses raised in isolation and not with other horses may develop abnormal or inappropriate responses – essentially be unpredictable - when introduced to other horses or animals, new objects, new situations and even humans.

EQUINE SENSES

Horses need to be able to use their different senses – sight, hearing, touch, smell, taste and innate perception – to evaluate, assess and process their environment. When a horse cannot utilize its senses on a regular basis, as it would in the wild, it may be more likely to be unpredictable and untrusting of its environment and anyone or anything in that environment.

The brain of a horse, according to Ainslie and Ledbetter in their book, “The Body Language of Horses,” is more competent than is generally assumed. The capacity of a horse’s brain includes, and is not limited to:

- Long memory
- Sensitive comprehension
- Alert curiosity
- Resourcefulness
- Considerable sociability – playfulness inclusive
- Solicitude
- Selective friendliness
- Sense of injustice

Of all domestic animals, the horse is most often overcome by fright and this fright/flight reaction is part of the evolutionary baggage that the horse continues to carry – its sensory perceptions and instincts for self preservation. Some of the fears that horses are most susceptible to include: loss of balance (making them easier “prey”); the unfamiliar; predators; damage to the poll bone (if struck, this bone can penetrate the brain and kill the horse – ever wonder why your horse may be “head shy?!”); water (how deep is it really?); death (decomposing bodies); and, remembered fears (past injustices or trauma).

Beyond interaction with another horse or horses in a herd, horse keepers can engage a horse’s senses by providing non-threatening stimulation through variation in activities and

surroundings, either on trail or in an arena. Any new activities, objects or environments should be approached with appropriate desensitizing techniques and over an adequate amount of time for the individual horse to be able to acclimate.

Stimulating and engaging activities – that can be incorporated as part of an exercise and training routine as well - can take place on the ground or as mounted/driving/vaulting activities and may include, and are not limited to:

- Obstacle courses designed with poles, cones, tarps, “bridges,” “gates,” etc.
- Trail rides or trail leads
- Lunging
- Long-lining
- Stretching exercises
- Massage techniques
- Grooming routines
- Free-lunge games (horse must be able to respond to voice commands without a lead or lunge line attached and must be done in a safe area) with large soccer ball – can do this as small herd activity if all horses have been sensitized to the ball and are herd mates

A healthy, happy, sound (in mind, body, spirit) and engaged horse will be more likely to be a safe partner for work in equine assisted activities and therapies!

IV. BASIC EQUINE CARE - PHYSICAL NEEDS

NUTRITION

The following are basic guidelines for feeding and watering horses. Formulating a diet for a horse can be a complicated process that should take into account the horse's current state of health, geographic location, medical history, exercise/training/work load and individual metabolism. Special recommendations for feeding a starved horse are found at the end of this chapter. A veterinarian or equine nutritionist should be consulted to ensure current feeding programs are meeting each individual animal's needs.

Signs of a Healthy Horse

- Hair is shiny and sleek
- No grass belly can be seen
- Muscles are well fit
- Horse shows signs of interest in surroundings
- Horse acts energetic
- Horse is not too thin or fat
- Normal riding does not produce sweating or heavy breathing

- Horse does not act tender footed and walks normally
- Horse eats all he is given
- The horse has bright eyes, alert ears, and normal vital signs
- The horse does not act tired, sluggish, or lethargic
- The horse has a thick or shiny mane and tail
- The horse has strong hooves that are shaped normally

Calculating Horse Bodyweight

Before accurate feed calculations can be made, the bodyweight of the horse should be estimated. Bodyweight assessment is also required when medicines, including de-wormers, are administered. The most accurate method of determining body weight is the use of electronic scales. When using scales, weighing the animal just before feeding and watering will help avoid variations caused by different gut-fill levels and will make the results of successive weightings more meaningful. Weight tapes also can be useful in estimating a horse's body weight.

For those without scales, the Henneke Body Scoring System can help the average horse person, with practice, to establish and track changes in a horse's body condition. See below for this scoring system:

Body Condition Scorecard

Henneke Body Scoring Condition Chart:

1. **POOR:** Backbone, ribs, tail head, pelvis, and vertebrae stick out. The bones of the withers, shoulders, and neck are noticeable. No fat can be felt.
2. **VERY THIN:** Backbone, ribs, tail head and pelvic bones stand out. The bones of the withers, shoulders, and neck are noticeable.
3. **THIN:** Backbone stands out, but is covered with fat to midpoint. Some fat can be felt over ribs, but they are still noticeable. Tail head is prominent. Individual vertebrae cannot be seen. Bones of withers, shoulders and neck are visible.
4. **MODERATELY THIN:** Withers, neck, and shoulders do not look thin. Slight crease down back. Outline of ribs can be seen. Fat can be felt around tail head. Vertebrae cannot be seen.
5. **MODERATE:** Shoulders, withers, and neck blend smoothly into body. Ribs can be felt, but not seen. Fat around tail head is spongy.
6. **MODERATE TO FLESHY:** May be slight crease down back. Soft fat around tailhead and over ribs. Small fat deposits along the withers and neck, and behind shoulders.
7. **FLESHY:** May be crease down back. Ribs can be felt, but not easily. Fat can be felt between ribs. Soft fat around tail head. Fat can be seen around withers, neck, and behind shoulders.
8. **FAT:** Crease down back. Ribs are hard to feel. All along withers is filled with fat. Fat around tail head is very soft. Fat can be seen on the withers and behind shoulders. Some fat is deposited along the inner buttocks.
9. **EXTREMELY FAT:** Deep crease down back. Fat is deposited in patches over the ribs. Bulging fat around tail head, withers, neck, and shoulders. Inner buttocks rub together. Flank is filled in.

Equine Body Condition Score

the HORSE
MAGAZINE



1

PLATINUM
Your source for Premiums,
Participate in Equine Excellence

SCORE DESCRIPTION

1 POOR
The animal is emaciated. The ribs, spine, hipbones, and tailhead project prominently. The structure of the withers, shoulders, and neck easily noticeable. No fatty tissue can be felt.

2 VERY THIN
The animal is emaciated. Slight covering over vertebrae. Ribs, hipbones, and tailhead are prominent. Withers, shoulders, and neck muscles are palpable.

3 THIN
The ribs are about 100% exposed. Slight fat cover can be felt over ribs, but ribs easily die off with. The tailhead is visible but not too prominent. Ribs can be seen, but withers, shoulders, and neck are unobtrusive.

4 MODERATELY THIN
Ribs are visible along neck. Some outline of ribs can be seen. Fat can be felt along vertebrae. No ribs can be seen. Withers, neck, and shoulders are obviously thin.



3



5

5 MODERATE
Ribs are visible. Fat can be felt, but not easily seen. Fat associated with beginning to form along spine, withers, and shoulder blades and neck. Some muscle cover the ribs.

6 MODERATELY FLESHY
Ribs have a slight outline. Some ribs can be felt. Fat on the neck and ribs. No ribs are visible along the neck. Fat beginning to be deposited along the spine of the vertebrae, around the shoulders, and along the neck.

7 FLESHY
Ribs are completely covered. Fat can be felt, but not easily seen. Fat is beginning to be deposited along the spine of the vertebrae, around the shoulders, and along the neck.



7

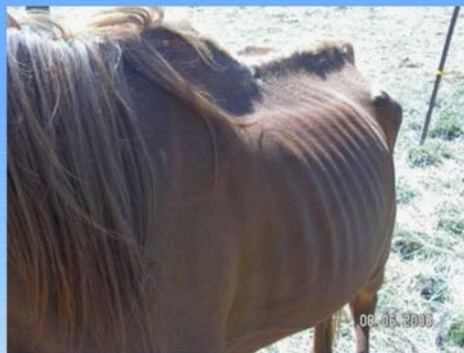


9

8 FAT
Covered back to prominent. Rib difficult to feel due to fat. Moderate fat around shoulders with soft areas along withers that with the ribs. Moderate covering of ribs. Fat deposited along the spine, shoulders.

EXTREMELY FAT
Difficult to see ribs. Fat is so thick that ribs are not palpable. Fat is deposited along the spine of the vertebrae, around the shoulders, and along the neck. Fat is so thick that ribs are not palpable.

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Poor: Animal extremely emaciated spinous processes, ribs, tailhead, tuber coxae (hip joints), and ischia (lower pelvic bones) projecting prominently; bone structure of withers, shoulders, and neck easily noticeable; no fatty tissue can be felt.



Moderate: Back is flat; ribs not visually distinguishable but easily felt fat around tailhead beginning to feel spongy; withers appear rounded over spinous processes; shoulders and neck blend smoothly into body.





<http://www.thehorse.com/pdf/nutrition/bcs-poster.pdf>

General Feed Requirements

Horses should receive a daily diet that is adequate for maintaining health and function and be fed on a regular daily schedule. In its natural state, the horse eats a variety of forages (mainly grasses) to meet its nutritional needs. Due to the small size of its stomach, the horse will normally consume its daily intake over 16 to 20 hours.

Horses should be fed a forage-based diet with grain supplementation, if needed. At EAAT facilities, fresh forage (pasture) can seasonally provide most of the horse's needs. Provided the stocking rate is correct, most horses can meet their energy, protein and mineral demands from an adequate supply of good-quality pasture. If possible, unless otherwise directed by a veterinarian, horses should have daily access to pasture. When pasture is limited, the diet should be supplemented with hay. However, certain minerals and trace minerals may be lacking.

An analysis of pasture and hay samples being fed can be done if nutritional content is questionable – contact your veterinarian or local feed store/grain dealer for instructions on how to get your feed analyzed professionally.

When horses are fed high-grain (high-energy) diets, attention should be paid to avoid nutrition-related health problems, such as grain overload, laminitis, founder, excess energy or obesity. Abrupt changes in diet should be avoided. To avoid major health problems, any changes in the type and quantity of feed should be introduced gradually over a period of several days. Ask for a small amount of grain from the previous owner/facility when taking in a new animal for a smooth transition.

When horses are fed in groups, adequate manger space or feeding points should be available to minimize competition for feed. All horses should have simultaneous access to feeders so that all can eat at one time. Horses that “bully” others and prevent these horses from eating must be separated to allow the less dominant horse or horses to receive adequate feed.

All feed components used in the diet should be free of spoilage, toxic insects or contaminants, dust or molds. Horses should also have access to free-choice salt and appropriate minerals.

All feeds and supplements should be properly labeled to avoid misuse. Feeds designed for other species, particularly medicated feeds and those containing urea, should not be used for horses.

Feed troughs and buckets should be cleaned regularly.

Supplementary Feeds

- ✓ Cereal grains such as oats, corn and barley should generally be added to the diet to meet extra energy needs, such as those associated with exercise, late pregnancy, lactation, growth and sometimes maintaining proper weight, convalescence or recovery from surgery. Cereal grains should always be measured by weight rather than volume when feeding, as there are marked differences in densities, not only among types of grains, but also within different consignments of the same grain.

- ✓ Oats tend to be safer to feed due to high fiber content. Crimping is considered by many to aid digestion, but the storage of crimped oats reduces their nutritional value and should be avoided.
- ✓ Corn and barley have a higher energy value than oats. Because of their high-energy content, they can cause laminitis and/or colic if introduced to the diet too quickly. Barley's energy value lies between that of corn and oats. Its hard husk needs to be crushed or cracked to aid digestion.
- ✓ Soybean meals are often included in conditioning rations for young and growing horses and increase the protein content of the ration. They should be fed in small amounts and introduced gradually.
- ✓ Linseed meal is not an appropriate protein supplement for growing horses because it is low in the amino acid lysine that is essential for normal development.

Many brands of blended horse feeds are on the market. When the manufacturer's feeding recommendations are followed (this information should be printed on the label, along with an analysis of ingredients), they provide a simple method of supplementation.

Where small numbers of horses have similar supplementary feeding needs, premixed balanced feeds can save the facility work and ensure continuity of diet.

When feeding commercially blended feeds, care should be taken to ensure the horse has access to its minimum daily forage (fiber) requirement of 0.5 to 1 pound dry matter/100 pounds bodyweight.

Horse feeds are generally low in sodium. When horses are working and sweating, salt (sodium chloride) and possibly other electrolytes may need to be supplemented. Hand-fed horses should have salt supplemented daily.

Advice on mineral deficiencies peculiar to any grazing area should be sought from a veterinarian or local extension nutritionist.

Determining Feed Requirements for Each Horse

The amount of feed required by a horse is made up of two factors:

1. *Maintenance needs*, and
2. *Activity needs* (which include rate and type of work/training, growth, lactation, pregnancy, etc)

Both requirements should be satisfied to maintain body condition and weight. Every horse should be offered daily a sufficient and appropriate ration of feed to maintain its body condition at between 4 and 6 points on the Henneke condition score chart (see above).

Maintenance Needs

Maintenance feed is the amount required to maintain the horse at rest. "At rest" means that the work required of the horse is no greater in physical activity than that expected of a

healthy horse grazing freely in a paddock. Maintenance can be expressed as an idle, mature horse that maintains its normal weight. This usually includes horses being rested from their usual work, some horses working in EAAT programs, students' horses that rarely get into a canter, and pleasure horses ridden carefully at a relaxing pace for no more than one hour per day.

The average horse consumes approximately 2% of its bodyweight daily, as dry matter of a palatable feed, to meet daily maintenance requirements.

Regular condition scoring or weighing will help establish an individual variation required from the 2% bodyweight guideline.

Individual horses have varying digestive capabilities that affect maintenance requirements:

- Periods of extremely cold weather may increase maintenance needs by up to 30%.
- Temperament should also be taken into account, as nervous or highly-strung horses require more energy than do quiet horses of the same bodyweight.

Expected Total Ration Consumption by Horses(1)

The following table helps calculate the necessary daily ration based on level of activity:

Class	Total Consumption % of Body Weight
Maintenance	1.5-2.0
Working	1.5-3.0
Late Gestation	1.5-2.0
Lactation	2.0-3.0
Weanlings	2.0-3.0
Yearlings	2.0-3.0
Two-year-old	1.8-2.5

Overfeeding, Obesity and Laminitis (Founder)

Some equines, particular ponies, are able to utilize energy in feeds very efficiently. Excessive energy intake is one of the causes of a common and crippling disease, laminitis. Laminitis affects the feet of horses and results from the disruption of blood flow to the sensitive and insensitive laminae, which secure the coffin bone to the hoof wall. Founder is a commonly used name for this condition. It is important to note, however, that other causal agents of laminitis include stress, a sudden increase in work, excessive concussion, and abnormally high body temperature.

Horses should not be permitted to become overly fat. Horses and ponies known to be susceptible to laminitis should have restricted access to grain, as well as spring and autumn pasture. Low-energy forages should be fed.

Control of overweight horses using starvation diets is unacceptable. Instead incorporate the use of muzzles, reduced time on pasture, or increase exercise for each animal. The horses should be supplied with a balanced reduction diet of food and water.

Some Additional Circumstances – Nutrition:

❖ Nutrition of the Pregnant Mare

The non-working pregnant dry mare does not require an increase in feed above maintenance during the first eight months of pregnancy. During the last three months of pregnancy, the extra energy requirement, due to fetal growth and an increase in the mare's weight, is about 0.5% of bodyweight, as dry matter, so the total dry matter feed requirement becomes approximately 2.2% of bodyweight.

It has been estimated that a normal mare will produce milk equivalent to 3% of bodyweight in early lactation and 2% in late lactation. The milk production of pony mares is estimated at 4% in early lactation and 3% in late lactation. For example, this means a 1,100 mare (500 kg) should produce 4 gallons (15 liters) of milk per day in the first three months and 2 ½ gallons (10 liters) per day in the last three months prior to weaning.

In dry matter intake, the lactating mare's activity needs are between 1 and 1.5% bodyweight above maintenance.

❖ Nutrition of Growing Horses

Growing horses need feeding above maintenance to supply the "building blocks" for growth. The feed required varies with the expected mature weight, growth rates, age and exercise. Young horses have a higher protein requirement than do mature horses. Their feed should contain 13 to 15% protein as weanlings. Yearlings and two-year-olds require less. Young horses need approximately 3% of their bodyweight as dry matter intake, depending on diet ingredients.

❖ Special Needs of Aged, Sick and Injured Horses

When horses show abnormal loss of bodyweight, despite being fed a diet that provides maintenance and extra energy requirements, a veterinarian's advice should be obtained and followed. A veterinarian or equine nutritionist's advice may also be required to work out special feed requirements for sick and injured horses.

Horses with abnormalities of the mouth may find normal grazing and chewing difficult and will have a greater reliance on supplementary feeds to maintain bodyweight. This problem is common in older horses. These horses should be examined by a veterinarian and corrective action taken, if possible.

❖ Re-feeding the Starved Horse

Unfortunately, some horses that arrive at EAAT organizations may have been subjected to long-term neglect and/or may suffer from starvation. Rehabilitating a starved horse presents many challenges for caregivers. In both horses and humans, the abrupt re-feeding of a starved being can cause dysfunction of the body's metabolic system, which can lead to failure of the heart and lungs, and ultimately lead to death (5).

A veterinarian is vital to the recovery of these animals and must be consulted as soon as a starved horse arrives at the facility.

What Happens during Starvation (6)

During the starvation process, the horse initially uses any fat and carbohydrate stored in his body to supply energy for metabolism.

This is the normal process for any healthy horse: fat and carbohydrates are used for energy, exercise, brain function, circulation, etc., and are then replaced with nutrients from food. The cycle is constant and never-ending, even during sleep.

In a starved animal, once this source of fat and carbohydrate is gone, energy is derived from a breakdown of protein. While protein is a component of every tissue, there are no inert stores of it in the body such as there are for fat and carbohydrates. Consequently, the starved body uses protein not only from muscles but also from vital tissues such as the heart and even gastrointestinal tissues – tissue that is necessary for life. The starved body cannot select which tissue protein will be metabolized for energy.

As time goes by, the horse's survival is a precarious situation. When a horse loses more than 50% of its body weight, the prognosis for survival is extremely poor.

The Re-feeding Problem

Re-feeding starved animals, including humans, is not an easy process. In humans suffering from starvation caused by illnesses such as anorexia, cancer or gastrointestinal obstruction, patients can develop “re-feeding” syndrome when they are given concentrated calories, and this in turn can lead to heart, respiratory and kidney failure, usually three to five days after the initial meal. This same syndrome has been reported in the literature for horses.

The Best Diet

A team of California researchers led by Dr. Carolyn Stull of the University of California-Davis Veterinary Medicine Extension studied the rehabilitation of chronically starved horses and developed guidelines expressly developed for use in equine facilities.

Dr. Stull and her team showed through their research that the best approach for initial re-feeding of the starved horse consists of frequent small amounts of high-quality alfalfa. This amount should be increased slowly at each meal and the number of feeding decreased gradually over ten days.

After ten days to two weeks, horses can be fed as much as they will eat.

The horse will show signs of increased energy after about two weeks. Ears, eyes and head movement will be the first noticeable movements.

Some weight gain can be achieved in one month, but three to five months usually are needed to rehabilitate back to a normal weight.

Veterinary care and nutritional advice should be sought on a continuous basis and as complications arise.

Re-feeding Recommendations

Always contact a veterinarian to evaluate the medical status of the horse before, during and after any re-feeding program.

➤ Days 1-3

Feed one pound (approximately 1/6 flake) of leafy alfalfa every four hours (total of six

pounds per day in six feedings).

➤ **Days 4-10**

Slowly increase the amount of alfalfa and decrease the number of feedings so that by day six, you are feeding just over four pounds of hay every eight hours (total of 13 pounds per day in three feedings).

➤ **Day 10 – Several Months**

Feed as much alfalfa as the horse will eat and decrease feedings to twice a day. Provide access to a salt block.

IMPORTANT - PLEASE NOTE:

- Do not feed grain or supplement material until the horse is well along in its recovery. Early feeding of grain and supplement material complicates the return of normal metabolic function and can result in death.
- Provide clean, fresh water at all times.
- De-worming and correction of dental problems are very beneficial to the horse's recovery.

Water Requirements

A horse's daily water requirements may range from 5 to 20 gallons (20 to 70 liters), depending on air temperature, humidity, body weight, level of activity, and health and physiological status (e.g. pregnant, lactating or growing). As a general guide, horses need ½ to 1 gallon (2 to 4 liters) of water per 2 pounds of dry matter intake. This requirement increases with air temperature; e.g. an increase in ambient temperature from 55°F to 77°F (13°C to 25°C) increases water required by 15 to 20%.

Every horse should have access to a sufficient amount of potable water to meet its individual maintenance and activity needs. Water troughs and containers should be regularly cleaned to prevent algae buildup. They should be located where they are protected from electrical problems, fouling and freezing. Automatic watering systems should be checked daily to ensure they are dispensing water properly.

A rapid loss of water and essential electrolytes can result from severe diarrhea, bowel diseases and excessive exercise. Fluid replacement should be administered by a veterinarian in order to overcome dehydration if necessary.

BASIC HOOF CARE

The age-old saying “no hoof, no horse” applies to every discipline in the horse industry and is equally important to the horse that enters an EAAT facility. The hoof is a common source of lameness, therefore good, quality hoof care is imperative to the well being of a horse in these facilities. For the sake of the organization, discussion here applies specifically to horses in EAAT facilities and should not be confused with any breed predilection or discipline.

Hoof Growth

As a general rule, adult horse hoof growth is approximately 3/8 of an inch (9 millimeters) per month, while hoof growth in a foal is approximately 5/8 inch (15 millimeters) per month. With that in mind, an adult horse should be trimmed (or shod) every six to eight weeks so as to maintain proper hoof-pastern axis and more importantly, proper hoof balance in accordance with the needs of the horse. Foals should be trimmed every four weeks.

Start with a Thorough Examination

Upon entering a facility, a complete physical examination should be performed on every horse. As part of the examination, the feet should be evaluated carefully to identify any hoof wall cracks, bruising, lacerations or any other pathology that needs the attention of the farrier or veterinarian. Any history of laminitis, navicular disease or any other disease entity should be addressed at this time to help facilitate proper trimming and/or shoeing for the horse.

Special Considerations (Hoof Care)

Horses entering EAAT programs to provide services come in all shapes and sizes and often require the involvement of the veterinarian and the farrier to address hoof concerns. For example, retired racehorses are often in aluminum shoes with toe grabs. It is thought best to remove these shoes, balance the foot according to conformation and leave the horse barefoot or apply flat steel shoes. These horses often have under-run or sheared heels and require several shoeings to achieve proper hoof-pastern axis. Some other items to consider are:

1. ***Hoof Wall Cracks/Quarter Cracks:*** A farrier should evaluate and address the Crack for infection, necrotic tissue and, most importantly, stability. Stability of a hoof wall crack is necessary for normal hoof growth.
2. ***Caudal Foot Disease:*** Often seen in particular breed and disciplines. If history exists or a diagnosis is made, veterinarian and farrier involvement is needed to facilitate the shoeing needs of the horse.
3. ***Laminitis – Chronic vs. Acute:*** Accurate diagnosis, which may require radiographs, is necessary to determine the shoeing needs of the horse. Proper shoeing, good management and nutrition all play a vital role in foot care relative to laminitis.
4. ***Corrective shoeing:*** May sometimes be necessary depending upon injury and conformation. Often required with foals. Consultation with a farrier and veterinarian is recommended.
5. ***Environment:*** Hoof care is often dependent upon the environment in which the horse lives. Moisture can be a problem and can lead to thrush and other problems. Cold weather slows hoof growth and should be considered when trimming is necessary. Shoeing considerations should be addresses and will be different for a frozen pasture versus a rocky pasture, for example.
6. ***Management:*** Good nutrition, shelter and dry bedding are all important in maintaining good, healthy feet. Some people advocate the use of feed additives for healthy hoof growth. Basic applied animal husbandry is paramount for normal feet and should never be omitted.

Rely on Qualified Caregivers

When a horse is to be shod, a qualified farrier who understands the goals of the facility should be involved. This will aid in minimizing any potential hoof problems, as well as correct any previous hoof problems. To find a certified farrier in your area, contact the American Farriers Association (www.americanfarriers.org).

The horse should be shod or trimmed in accordance to its needs, which is dependent upon its housing, musculoskeletal problems, conformation and environment. Hind feet shoes are not recommended when horses are turned out in a group, so as to minimize injury to other individuals. However, there may indication of some musculoskeletal problems in hind feet that require shoeing. There are numerous other aspects of hoof care that have not been mentioned here. Management plays a critical role in the success of the therapeutic horsemanship facility and, more importantly, in the health of the horse.

Good management practices should incorporate both the veterinarian and the farrier when addressing hoof care for the horse.

SHELTER, STALLS AND HORSE FACILITIES

(Please see also PATH International current Standards for Certification & Accreditation manual, sections including Program and Facility standards)

The purpose of this section is to provide information on the basic principles of shelter for horses that provide EAAT services. Many different types of housing and shelters are used at these facilities, and in this section it will be difficult to examine all possibilities. Many factors should be taken into account when designing shelters, including the diverse climatic and geographic conditions that can be found in the United States and in other countries. Individuals requiring further information should refer to local, state, federal and international sources, such as veterinarians and extension agencies.

Shelter

- A shelter is a natural or man-made structure that provides relief to each individual animal from direct sunlight, wind, precipitation and other inclement weather. The design and use of shelters should promote the health, well-being and good performance of horses throughout all stages of their lives.
- All constructed shelters should be structurally safe for horses and personnel. Shelters where horses are located should be constructed with no exposed surfaces or projections likely to cause injury. Shelter design should promote easy and safe handling of horses, as well as ease of cleaning and care. Horses should be provided with a clean area on which to lie.
- Ceiling and support beams in horse-housing facilities should be high enough to permit the horse to stand naturally with a full range of motion in the head and neck without touching the ceiling.
- Floors in horse stables should be constructed and maintained to provide traction and drainage and prevent injury.
- Ventilation should be designed to provide adequate air circulation for enclosed shelters.

- Electrical wiring and panels should not be accessible to horses and should be installed in accordance with applicable electrical codes.
- Lighting should be provided in a manner to permit effective observation of stabled horses.
- Allies, walkways and work areas should be uniformly illuminated. Natural lighting should be provided wherever possible.
- Manure and disposed bedding should be handled and stored in a manner that has as little negative impact on the surrounding area and the environment as is reasonably possible.

Horse keepers should have a designated area for quarantine or isolation purposes. These areas should be separated from other holding areas, and appropriate isolation and/or quarantine procedures and precautions should be followed, as applicable. Consult with your veterinarian as needed in these circumstances.

Stalls

- Stalls or portable corrals should be available to contain horses that may be sick or injured.
- The stalls should be of sufficient size for a horse to get up and down.
- Bedding should be provided and kept clean, with stalls being cleaned at least once every 24 hours.
- Good ventilation is very important as a precaution for potential respiratory issues.

PASTURES, PADDOCKS AND FENCING

(Please see also PATH International current Standards for Certification & Accreditation manual, sections including Program and Facility standards)

Pastures are an important aspect of horse-keeping for the EAAT equine. Pastures allow horses to have access to grass as needed.

The number of horses intended to be pastured should determine the size and number of pastures and/or paddocks at a facility.

Conversely size and number of paddocks available will determine how many horses can be safely accommodated without compromising their physical and emotional health.

Keep in mind safety and injury prevention while allowing plenty of exercise.

Stocking requirements of pastures will vary, depending on feed and quality of the pastures. But generally, one or two acres per horse are required.

Horses have a natural herd instinct, and as such will prefer to be with other horses.

In addition, pasture containment with proper shelter will serve a facility better than stalls only.

Pastures and Range Management

- ✓ Horses on pasture or range should have an adequate quantity and quality of feed and water.
- ✓ Properly maintained pastures may provide all or most of the nutrient requirements of grazing horses.

- ✓ Nutrient content of pastures should be closely monitored and supplemental feed provided when necessary.
- ✓ Salt and mineral supplements should be provided when necessary to supplement specific nutrient deficits in grasses and forage. To prevent digestive and health problems, horses should be introduced to pasture gradually or cautiously, especially in heavy growing periods such as spring in some areas.
- ✓ Horses on pasture should be inspected regularly, paying close attention during high-risk periods (seasonal changes, introduction of new horses, foaling, etc). Application of fertilizers, pesticides, herbicides and manure to pastures should be planned and conducted to minimize risk to grazing horses and the environment.
- ✓ In addition, pastures and range land should be inspected regularly for poisonous plants.

Pasture and Paddock Fencing Safety

- ✓ Pastures and paddocks should be properly fenced to safely confine horses.
- ✓ The suitability or type of fence varies according to the disposition of the horses, as well as stocking density and pasture/paddock size.
- ✓ Horses should be introduced to unfamiliar fenced areas during daylight hours and be monitored to reduce the risk of injury.
- ✓ Fences and gates should be maintained in good repair to minimize the risk of horses gaining access to public roadways.
- ✓ Barbed wire and narrow gauge high tensile wire, because of their cutting properties can cause severe injury to horses.
- ✓ These materials are sometimes used for fencing extensive pasture areas, but should be avoided in closely confined paddocks or small pastures.
- ✓ Pastures, paddocks and range should be free from equipment, machinery, debris and refuse that have the potential to cause serious injury to occupants.

Paddock and Small Pasture Management

- ✓ Every property in which horses are kept should have a sufficient number of paddocks or pastures to permit separation of incompatible animals.
- ✓ The risk of injury increases when horses are overcrowded.
- ✓ Competition for food, water and space often leads to fighting and subsequent injury. The number of horses and their grouping in each paddock or small pasture should be appropriate for their compatibility, and for the ground conditions, taking into account the climatic conditions at the time. Paddocks and small pastures should be cleaned regularly. Horses will not eat pasture grass or forage that is contaminated with manure. Without regular cleaning, the effective grazing area is decreased. Effective parasite control is more difficult in paddock or small pasture environments.
- ✓ Pasture rotation, manure removal and internal parasite control with effective deworming programs are a part of an integrated program of management.
- ✓ Sources such as your local veterinarian can help in the development of a specific program to fit individual conditions.

NEW EQUINE ARRIVALS AT YOUR PROGRAM

Every horse entering an EAAT facility should receive a thorough physical examination by facility staff and their veterinarian upon its arrival.

- ❖ A health record should be established for each horse, clearly identifying the horse by name and/or number, age, gender and description.
- ❖ All treatments and medication given pre and post arrival should be recorded in the horse's health record. When horses require medication, it should be administered as directed by the veterinarian.
- ❖ It is a good practice to photo document the horse as a record of physical appearance upon its arrival at the facility.

Horses may be susceptible to transportation stress and disease following transport.

- ❖ On arrival, new horses should be isolated to prevent the possible spread of disease. Handlers should carefully monitor recently transported horses for several days after long-distance transport from one region of the country to another, and/or international transport.
- ❖ The temperature of these horses should be recorded at least daily for several days. If the temperature appears abnormal, the temperature should be recorded at least twice daily, i.e. morning and evening, and a veterinarian should be consulted.

MONITORING YOUR HORSES

Frequent observation of the horses in an EAAT environment is paramount to ensure they are healthy. Horses should be observed routinely, at least once every 12 to 24 hours, paying particular attention during high-risk periods (i.e. inclement weather, changes in personnel management, changes in work or training, changes in nutritional management, foaling, introduction of new animals, etc.).

The table below provides vital signs for an adult 1,200 pound (545 kg) horse at rest at ambient temperature of 60 degrees F. These criteria will vary according to age, physical fitness and environmental conditions. Younger horses tend to be at the higher end of the range.

VITAL SIGNS FOR A 1,200 lb (545kg) HORSE AT REST AT 60 DEGREES F

Vital Sign	Normal Range	Average
<i>Rectal Temperature</i>	99.5-101.3 F (37.5-38.5 C)	100 F (38.0 C)
<i>Pulse</i>	28-45 beats/minutes	36 beats/minutes
<i>Respiration Rate</i>	10-14 breaths/minute	12/breaths/minute

PREVENTIVE HEALTH CARE IS A NECESSITY

In consultation with a veterinarian, EAAT providers should develop a sound health care program for their equines, appropriate to the facilities and environment. Increased horse population density requires great attention to disease prevention.

➤ **Parasite Control**

A parasite control program should be established in consultation with a veterinarian. In terms of management priorities, establishing an effective parasite control program is probably second only to supplying the horses with plentiful, clean water and high-quality feed. An effective program will include testing fecal samples for parasite levels and the administration of de-wormers, as well as manure and pasture management.

➤ **Vaccination**

Administering the appropriate vaccinations is the best weapon against common infectious diseases of the horse. The specific immunizations needed by a particular group of horses will depend upon several factors including, but not limited to: environment, age, breed, sex, work load, exposure risk, geographic location and general management. A veterinarian should be consulted to determine the most effective vaccination program for your facility's horses. Most shots can be administered by trained EAAT personnel, however your veterinarian may be required to administer specific vaccinations based on state, federal and/or international regulations.

➤ **Dental Care**

A veterinarian should examine horses' teeth at least annually. Uneven wear and abnormalities -can -effect -normal eating habits as well as bit comfort and head sensitivity. Dental care will depend on age, nutrition and environment. Dental care must be performed by a veterinarian, under veterinary supervision, or by a certified equine dentist where allowed by state, federal and/or international regulations.



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BE PREPARED FOR AN EMERGENCY

Caregivers of horses providing EAAT services must know how to recognize serious issues, be able to respond promptly and take appropriate action while awaiting the arrival of the veterinarian. Your veterinarian's phone number should be kept by each phone, as well as inside the equine first aid kit along with other emergency numbers (*see PATH Intl. standard P9*).

This information should also include information about how to contact the veterinary practitioner on call after hours in the event of an emergency. Consult with your regular veterinarian regarding a back-up, or referring, veterinarian's number in case you cannot reach your regular veterinarian quickly enough.

Equine First Aid Kit


All horse keepers should prepare a first aid kit and store it in a clean, dry and readily accessible place. PATH Intl. Standard P9 offers specific guidance on the very basic elements of an equine first aid kit. Please see also, the current issue of the PATH International Standards for Certification & Accreditation manual, Guidelines section, "What to Put in Your Equine First Aid Container." While a first aid kit can be simple or elaborate, the following items are essential according to the AAEP:

- Cotton roll*
- Contact bandage*
- Cling wrap*
- Gauze pads, assorted sizes*

- Gauze wrap*
- Adhesive wrap and adhesive tape
- Leg wraps
- Sharp scissors
- Hemostats
- Steel cup and container
- Rectal thermometer with string and clip attached
- Surgical scrub and antiseptic solution
- Latex gloves
- Flashlight and spare batteries
- Permanent marker pen
- Pliers (to pull nails)
- 6" diameter PVC tubing, cut in half the long way (like a gutter) into lengths of 1 ½ to 2 feet for emergency splinting

(* Materials should be sterile)

V. EQUINE WELFARE – OUR RESPONSIBILITIES AS THEIR PARTNERS



Equine Welfare

It is Everyone's Responsibility...

Welfare: "the state of doing well especially in respect to happiness, well-being or prosperity."

Merriam-Webster

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Your Equine Welfare Team



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Standard of Care for EAAT Partners

According to the American Veterinary Medical Association (AVMA) animal welfare is a human responsibility that encompasses all aspects of animal well-being, including proper housing, management, nutrition, disease prevention and treatment, humane handling and, when necessary, humane euthanasia.

Dr. Grant Myhre

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Ultimately, the best indicators of proper management of horses providing EAAT services are the physical and emotional health of the horses, as well as, the overall improvement in a horse's previous suffering from disease, trauma or neglect, if applicable.

Unless there is a medical explanation, all horses should regain and maintain an acceptable state of health and well-being with proper care.

Equines, like humans, are individuals and have individual characteristics, needs (physical, emotional, behavioral), likes/dislikes and idiosyncrasies – management practices (nutrition, shelter, turnout, etc), interactions (handling, leading, grooming, etc), socialization (with humans, horses, or other animals), training and exercise programs, as well as integration into EAAT programs should all take into consideration the individual equine at any given time – all the time!

Allowing horses who provide EAAT services to deteriorate due to inadequate care, resources or space is no favor to them and can progress to the point of cruelty.

Those who take in every animal, regardless of their ability to provide care, or refusal to recognize when an animal is suffering, are hoarders, not rescuers and certainly not rehabilitators.

All PATH Intl. EAAT facilities should periodically re-evaluate their principles, practices, capabilities and goals for quality care with the help of objective, knowledgeable outsiders, such as their equine veterinarian, farriers, shelters, alternative equine care providers and the like.

VI. SPECIAL CIRCUMSTANCES

CARING FOR THE GERIATRIC HORSE

The proportion of the equine population living into their 20's and 30's is growing. With proper care the lifespan of geriatric horses can be prolonged, as can their active, healthy status and quality of life. EAAT providers should have knowledge of equine diseases and lameness's common in geriatric horses and be able to identify early signs of disease, distress and injury, in order to provide for the special needs of the older horses entrusted in their care.

It is imperative to recognize that caring for the geriatric equine is exacting, labor-intensive and may involve considerable expense. At times, difficult decisions concerning quality of life and euthanasia must be made (see Euthanasia, below).

Veterinary consultation is crucial in the management of the geriatric equine.

Health and Disease in the Geriatric Horse

Older horses are more likely to experience colic, dental disease, tumors, lameness and pituitary disease than younger horses. Alterations in the older horse's digestive system may predispose it to colic; the most obvious would be dental problems. The wearing down of grinding surfaces, malocclusions and loss of teeth results in a decreased ability to crush whole grains and forage. This predisposes the animal to poor digestion, and esophageal and intestinal obstructions. A thorough dental examination should be performed in the older horse at least once

a year and, in some cases, every six months. Dental care alone cannot increase the grinding ability of the older horse. (1)

There is increased prevalence of laminitis in the older horse, and its association with Equine Cushing's Disease (ECD) places them at higher risk. Cushing's disease is hyperactivity of the adrenal cortex, representing the most common endocrine disorder of horses. (2)

Musculoskeletal problems are common in the older horse and are an accumulation of past injuries and wear and tear. If we look at recommendations for older people, regular exercise and resistance training improve muscle tone and mobility. Conversely, confinement and lack of movement weaken muscles and bones. Even in the oldest group of horses, movement in a pasture is preferred to stall confinement.

Providing Proper Shelter

Recommendations described in "Shelter, Stalls and Horse Facilities" should be applied to geriatric horses as necessary to accommodate older horses' decreased ability to regulate body temperature and increased susceptibility to extremes of heat and cold.

It is essential to protect older horses from heat and/or humidity by providing shade and ventilation. Pastures and paddocks should include natural shade or properly constructed, well-ventilated shelter. Stables may require fans. Body clipping may be necessary to promote dissipation of heat from the body.

It is also essential to protect older horses from extremes of cold through the appropriate combination of shelter, wind breaks and blanketing. Pastures and paddocks should include natural or constructed shelter to provide a dry environment and protection from winds. Soft footing and deep bedding (but not too deep, as it's harder to move around in) should be considered for older horses with arthritic conditions and other lameness.

A pasture environment is an excellent option for older horses, as turnout promotes beneficial activity. Consistent light exercise regimens are recommended and may improve range of motion and muscle strength. Pasture turnout is preferred over stall rest, because stall rest generally results in increased stiffness and pain. Stall rest should be used only during periods of acute pain or joint instability. Body weight should be reduced to normal or slightly lighter levels to minimize mechanical stress (2).

Feed and Water

Recommendations described in "Nutrition" should be adapted to the special needs of geriatric horses. The body condition and/or actual body weight of older horses should be monitored carefully, because loss of condition is the most common problem in older horses. Weight loss can indicate abnormal and often treatable conditions, and lost weight is harder to regain in older horses than in younger horses.

Current recommendations of the National Research Council's *Nutrient Requirements of Horses* for mature adult horses are influenced by several circumstances of the aging horse, including slower metabolism, decreased digestive efficiency and decreased level of energy

expenditure. Nutrient requirements of geriatric horses more closely approximate those of weanlings in terms of protein, calcium and phosphorous. (3)

Protein requirements are higher in older horses than in younger adult horses, as the ability to digest crude protein is less in geriatric horses. Subsequently, it is suggested that geriatric horses are fed diets containing 14% to 16% crude protein. Loss of muscle mass is a common characteristic of geriatric horses. Although this has been attributed to decreased levels of activity, nutrition has also been implicated. Lucien, that may stimulate protein syntheses and is relatively high in alfalfa hay, may be useful in preventing loss of muscle mass in geriatric horses (4).

Phosphorous absorption is also impaired in older horses, such that phosphorous requirements are higher. The ratio of calcium to phosphorous should remain 1:1 or slightly higher. The grain ration typically should be approximately 0.3% calcium (not more than 1% calcium) on a dry matter basis.

Older horses are likely to need grain to meet their energy needs. If they are performing, older horses work harder than younger horses at the same level of exercise (5). Commercial rations designed for geriatric horses are available. Specialized feeds containing a highly digestible fiber and a form of fat for energy must be fed to accommodate older horses. Extruded grains or pellets are more digestible and more easily chewed.

Fat is an excellent source of calories for older horses and is well utilized with almost no increase of digestive upset compared to energy-dense rations containing primarily cereal grains. Commercial grain rations with fat added are available (5% - 8% crude fat content). Another way to increase fat is to add vegetable oil (up to 2 cups per day) or rice bran. If protein is insufficient in the diet, soybean meal is an excellent, high-quality protein source for older horses.

Older horses should receive high quality roughage because of their decreased ability to digest fiber and to chew forage properly. Sweet, young grass is ideal. Another roughage alternative for older horses is beet pulp, because of its digestibility and calcium content. It can be soaked to make chewing easier.

Hay, when required, should be less mature and lacking in coarse stems, such as mixed hay with 60% legume content. All legume hay, such as straight alfalfa, is not ideal because the protein content may be too high and the phosphorous content is very low, although phosphorous may be supplemented. If chewing is impaired, chopped hay, hay cubes or roughage-containing pellets are alternatives. Soaking hay cubes and pellets in water will make them easier to chew, while decreasing the risk of choking (obstruction of the esophagus with impacted feed).

Feed supplements are desirable for some older horses. Electrolytes may be appropriate in the performing geriatric horse, as they sweat more at lesser intensity exercise (6). A probiotic product may help digestion, because of the altered intestinal microbial content of older horses.

Water intake should be monitored in geriatric horses, especially because some of their more common medical conditions are accompanied by increased water intake and increased urine production. Older horses may be less inclined to drink excessively cold water, especially after the loss of a tooth, because cold water may cause discomfort. If the horse does not drink well, feeding water-soaked feeds (at least 2 gallons of water per feeding) will help increase fluid intake. Addition of 1 to 2 ounces of salt to the feed may also encourage increased water intake, but should be done only if the horse has unlimited access to water. (7)

Special attention should be given to older horses pastured with other horses to avoid problems arising from age-associated decreasing aggressiveness. Access to feed should be ensured. Ideally, older horses should be pastured with their peers rather than with younger, more aggressive horses.

- (1) Paradis MR: Demographics of Health and Disease in the Geriatric Horses. *Vet Clin Equine* 18 (2002) 391-401
- (2) UC Davis Book of Horses, 1996, p.449
- (3) Malone ED: Managing chronic arthritis, *Vet Clin Equine* 18 (2002) 411-437
- (4) Siciliano PD: Nutrition and Feeding of the Geriatric Horse, *Vet Clin Equine* 18 (2002) 491-508
- (5) McKeever KH, Malinowski K: Exercise capacity in young and old mares. *AJBR* 58: 1468-1472, 1997
- (6) McKeever: Exercise physiology of the older horse. *Vet Clin Equine* 18 (2002) 469-490
- (7) Ralston SL: Management of old Horses Rutgers' Cooperative Extension Bulletin FS715, [HTTP://www.rce.rutgers.edu/pubs/pdfs/fs715.pdf](http://www.rce.rutgers.edu/pubs/pdfs/fs715.pdf)

EUTHANASIA

The term euthanasia is derived from the Greek terms *eu* meaning good and *thanatos* meaning death. A good death would be one that occurs with minimal pain at the appropriate time in the horse's life to prevent unnecessary pain and suffering.

Justifications for euthanizing the horse for humane reasons should be based on both medical consideration as well as current and future quality of life issues for the horse.

The management team at EAAT facilities should actively consult and prepare with their veterinarian on issues of euthanasia, and make/prepare for procedural decisions regarding the involvement/awareness/relating of information to volunteers, participants, students, clients, parents and/or guardians in the event of euthanasia decisions.

The following criteria (not all criteria need to be met for every case), should be considered in evaluating the necessity for euthanizing a horse (1):

- Is the horse's condition chronic, incurable, and resulting in unnecessary pain and suffering?
- Does the horse's condition present a hopeless prognosis for life?
- Is the horse a hazard to itself, other horses or humans?
- Will the horse require continuous medication for the relief of pain and suffering for the remainder of its life?
- If the horse is suffering but treatable, is proper and recommended care of the horse within the means of the therapeutic horsemanship facilities, such that the health and safety of the other horses are not compromised?
- Is the horse constantly, and in the foreseeable future, unable to move unassisted, interact with other horses, or is exhibiting behaviors which may be considered essential for a decent quality of life?

Acceptable methods of euthanasia for horses include (2):

- Overdose of a barbiturate anesthetic, given intravenously by a veterinarian or euthanasia technician, trained, certified and experienced in the humane euthanasia of horses.

- Gunshot to the head of a calm, sedated or humanely restrained horse by a professional trained in this method.
 - Penetrating captive bolt to the head of a calm, sedated or humanely restrained horse by a professional trained in this method.
1. "The Veterinary Role in the Equine Insurance, AAEP 2000, pg 6
 2. Report of the AVMA Panel on Euthanasia, JAVMA 2001;218:669-695

STALLIONS

For risk management and potential safety and management concerns, the AAEP and PATH Intl. strongly discourage the use of stallions for EAAT and, at the very least, recommend the immediate castration of all stallions entering an EAAT program.

Castration and other surgical procedures must be conducted by licensed veterinarians using accepted surgical techniques in accordance with state, federal and/or international veterinary acts and regulations.

DISTRESSED/SICK/INJURED ANIMALS

Distressed horses should be dealt with humanely, effectively and promptly to prevent suffering. Sick or injured horses must receive veterinary attention as indicated. Horses unable to rise may need veterinary attention immediately. Veterinary consultation should be sought prior to any attempt to move a downed horse with the exception of a cast animal or one showing signs of colic as these need to be cared for immediately.

REPORTABLE/COMMUNICABLE DISEASE

Evidence of a reportable disease for your area, such as West Nile Virus, Vesicular Stomatitis or Rabies, must immediately be brought to the attention of the veterinarian. Any disease that appears to spread from a horse to a human should be reported.

Symptoms to be discussed with your veterinarian include and are not limited to:

- severe, unexplained, persistent or recurrent fevers;
- unexplained weight loss or progressive weakness;
- thick vaginal discharge;
- abortion of unknown cause;
- neurological signs (e.g. uncoordination, erratic behavior, abnormal postures and hypersensitivity);
- severe difficulty breathing;
- spasmodic coughing or frothy nasal discharge;
- soft swelling of the face or neck;
- blisters or open sores on the skin, lips, mouth, genitalia or above the hooves.

DECEASED ANIMALS

Deceased horses must be removed, buried or disposed of in an appropriate manner, as required by municipal, state or federal regulations.

VII. VETERINARIAN'S CHECKLIST (example) FOR EAAT PROGRAMS

(Adopted from the Thoroughbred Adoption and Retirement Association's (TARA) "Vet Check for Thoroughbred Adoption & Retirement Sites")

Note: *This checklist is provided as a sample for use by a veterinarian or other equine professional when evaluating the facilities available at an individual therapeutic horsemanship facility.*

Name of Facility: _____

Address: _____

Primary Contact: _____

Telephone: _____ **Fax:** _____

Website: _____ **Email:** _____

Scoring System for Checklist:

Excellent – 5

Good – 4

Adequate – 3

Fair – 2

Inadequate – 1

(Add specific comments as needed.)

I. Horses

Number at facility: _____

Maximum capacity: _____

II. Preventative Care and Basic Health Management

_____ Parasite Control Program _____

_____ Vaccination Program _____

_____ Dental Care _____

____ Emergency First Aid Kit _____

____ Health Records System _____

____ Injury Protocol _____

III. Feed Program

____ Hay _____

____ Pasture _____

____ Grain _____

____ Supplements _____

____ Storage of Hay, Grain & Supplements _____

____ Free Access to Hay _____

IV. Water

____ Indoor water supply ____ Buckets ____ Automatic Waterers

____ Availability _____

____ Cleanliness _____

____ Outdoor water supply: ____ Tanks ____ Automatic Waterers ____ Naturally Occuring

____ Availability _____

____ Cleanliness _____

Please list all indoor/outdoor water sources:

V. Pastures and Paddocks

___ Cleanliness _____

___ Availability for Turnout _____

___ Access to Feed and Water _____

___ Size _____

___ Division of Horses _____

VI. Fencing

___ Type _____

___ Condition _____

___ Safety _____

VII. Facility

___ Barns _____

___ Stalls _____

Size: _____

Number: _____

Isolation/Quarantine Area: _____

___ Run-in Sheds _____

___ Living quarters for workers _____

___ Personnel present at facility at all times _____

VIII. Farrier

___ Regular Visits _____

___ Quality of Care _____

IX. Horse Transportation

Please describe modes of transportation for horses available at this facility.

IX. Equipment Condition

Tack _____

Buckets _____

Brushes _____

Hoses _____

Hay Racks _____

X. Environment

Safety _____

Cleanliness _____

Bedding _____

Manure Removal _____

Fly Control _____

Additional Veterinary Comments:

Veterinarian: _____

Date: _____

VIII. EDUCATIONAL RESOURCES AND ADDITIONAL REFERENCES



Standards for Certification & Accreditation (manual), PATH International, current issue, available at www.pathintl.org

Equine Behaviour: Principles & Practice, Daniel Mills and Kathryn Nankervis, available at www.amazon.com

How To Think Like A Horse: The Essential Handbook for Understanding Why Horses Do What They Do, Cherry Hill, available at www.amazon.com

PATH Intl. Instructor Educational Guide, 2nd Edition, available for purchase as a hard copy from the PATH Intl. Store on-line www.pathintl.org

Certified Horsemanship Association Composite Horsemanship Manual, available from CHA at Certified Horsemanship Association at Local (859) 259-3399 or Toll Free (800) 399-0138 or order at website <http://www.cha-ahse.org/>.

101 Arena Exercises, Cherry Hill, available from Story Communications, Inc. (800) 441-5700

Becoming an Effective Rider, Cherry Hill, available from Story Communications, Inc. (800) 441-5700

Horses, Gaits, Balance, Movement, Susan Harris, available from Howell Book House, (800) 428-5331

US Pony Club Manual of Horsemanship, B/HA/A, C, D Levels by Susan Harris, available from IDG Books, (800) 434-3422.

The USPC Guide to Longeing and Ground Training, Susan E. Harris, (1997), available from US Pony Clubs The Kentucky Horse park, Iron Works Pike, Lexington, KY 40511 (606) 254-7669

The Essential Guide to Carriage Driving, Robyn Cuffey and Jaye-Allison Winkel, available from American Driving Society (ADS)

Easy and Enjoyable: Driving Your Horse, by Gloria Austin Productions, purchase from HorseTeam@aol.com, 352-753-3062

Drive Smartly, Drive Safely, A Carriage Association of America Information Booklet, available from The Carriage Association of American, Inc., (856) 935-1616 or ADS.

Training for Vaulting Coaches: Compulsories and Kur, by Isabelle Bibbler and Emma Drinker, current edition available through the American Vaulting Association.

Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior, Temple Grandin and Catherine Johnson. Available at www.amazon.com

The Body Language of Horses, Bonnie Ledbetter and Tom Ainslie. Available at www.amazon.com

Understanding Horses, Garda Langley. Available at www.amazon.com

Here are some online sites that offer information on all disciplines and have available topic searches:

www.discoverhorses.com

www.equisearch.com

Sites that offer information and educational articles from veterinarians include:

www.merckvetmanual.com

www.horse.justanswers.com

Some online equine magazines and periodicals are:

www.thehorse.com

www.horselinkmagazine.com

And there are sites that also offer educational online seminars – “webinars:”

www.smartpakequine.com

www.thehorse.com

www.discoverhorses.com

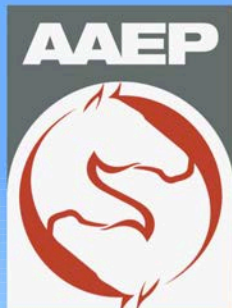
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XOXOXOXO