



ACF Riding Club

Healthy Horse

When you begin to care for the health of a horse, there's so much to learn that it may seem impossible to learn it all. From the daily care of hooves to maintaining your horse's teeth, joints and internal health, you are responsible for a lot of animal! Keeping your horse healthy involves choosing the right feed, watching out for colic and other digestive problems, paying attention to foot and leg issues, riding with the proper tack, correct grooming, regular vaccinations and de-worming, and a hundred other details.



Like humans, horses are affected by weather, need to be housed and fed properly, and may experience sprains, strains and soreness of the back and legs. Illness or pain affect not only the way they move but the way they feel, so that a healthy horse will tend to be happier than one who isn't feeling up to snuff. Some illnesses or injuries appear first as changes in mood; your normally jolly or equable equine may become moody, surly or unwilling when there's something physically wrong that hasn't yet appeared as lameness, sickness or other injury.

Annual Wellness Examinations

Horses, like humans, are living longer, healthier lives and continuing to compete well into their late teens and even early twenties. In order to achieve these extended healthy and active lifetimes, preventative health care and good nutrition are vitally important.

The Equine Wellness Exam starts with an assessment of your horse's overall condition, weight and body score. It is continued by examination of the horse's eyes, mouth, teeth, heart, lungs, abdomen, skin and genitals. A brief exam of the legs and feet for bony or soft tissue abnormalities or joint effusion is included.

Your vet will discuss your horse's nutrition, parasite prevention program, and environment. He should also discuss any abnormalities that are found, and recommendations/options for treatment or additional testing.

Locomotion

A locomotion exam can be scheduled at the same time as the Wellness Exam. This exam includes observation of your horse at the walk and trot in straight lines and on the lunge line to watch for any abnormalities in gait. If abnormalities are seen, a more in-depth lameness exam can be scheduled for another time.

Spring / Fall Vaccinations

The Annual Wellness Exam is most conveniently performed with your horse's spring vaccination appointment. Senior horses should also have a Senior Horse Exam in the late fall to assess their readiness for the rigors of winter.

Prevention

While not all emergencies or illnesses can be avoided, most can be prevented through a Wellness Exam, season-specific vaccinations, and an appropriate parasite control program.

Different Forage Types ~ Different Advantages

As they say, you are what you eat. The same is true for your horse. The basis for good health is a good diet. All horses should have access to fresh, clean water at all times. Your horse should also have salt available, since most diets have less salt than the horse requires.

Horses need different levels of feed and nutrition in their diet depending on age, current weight, activity level and overall health. An equine's stomach is a delicate balance of getting the right proteins, grains, hay, supplements, water intake and proper digestions of these substances. With literally hundreds of different feed types available, this can be quite challenging for a new or even veteran horse owners.



Pasture

Good pasture is the ideal forage for many horses. Horses on pasture move around and eat small amounts of grass continuously, the way nature intended for proper functioning of the digestive tract. However, pasture is not always available and doesn't supply enough nutrients for some horses. Pasture can be used to meet some or all of each horse's forage needs.



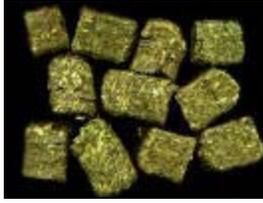
Grass Hay

Good-quality grass hay is the single feed with the best balance of protein, energy, and fiber for horses. Choose grass hays that are bright green in color, free of dust and mold, and cut in early stages of development. Allow horses between 1.5 and 3% of body weight (about 15 to 30 pounds) of good-quality grass hay per day.



Legume Hay

Alfalfa and clover are examples of legumes. They contain more protein, energy, calcium and vitamin A than grasses. The inclusion of some legumes (20-50%) in rations for growing and working horses and broodmares takes advantage of these additional nutrients. Legume hays should be clean and bright colored and cut at early to mid-bloom stage.



Cubes/Pellets – FORAGE FIRST Alfalfa and Timothy/Alfalfa Hay Cubes or FORAGE FIRST Hay Replacer (pellets) are consistent, good-quality partial or complete forage sources for horses. The cubes provide a higher leaf-to-stem ratio, more concentrated nutrients, and less waste compared to most long-stemmed hays. Cubed products are ideal for traveling and can be soaked for senior horses with dental problems. Hay re-placer can be used to extend, supplement, or replace forages.

Forage, a horse's natural feed, should be chosen to meet as much of a horse's protein, energy and fiber needs as possible. Forage types can be combined to provide the best program for each individual horse.

Source: <http://www.admani.com/AllianceEquine/EquineDigestion.htm>



Ten Tips For Choosing The Best Hay For Your Horse

A mature horse will eat the equivalent of 2 to 2 ½ percent of its body weight a day. For optimum health, nutritionists recommend at least half of that amount to be roughage, such as hay. For a 1,000-pound horse, that means at least 20 pounds of roughage each day.

Use the following tips to select the best hay for your horse:

1. Open several bales to evaluate the hay inside. Don't worry about slight discoloration on the outside, especially in stacked hay.
2. Choose hay that is as fine-stemmed, green and leafy as possible, and is soft to the touch.
3. Avoid hay that is over-cured, excessively sun-bleached or smells moldy, musty, dusty or fermented.
4. Select hay that has been harvested when the plants are in early bloom for legume hay or before seed heads have formed in grasses.
5. Avoid hay that contains a significant amount of weeds, dirt or trash.
6. Examine hay for signs of insect infestation or disease. Check for blister beetles in alfalfa. Ask the grower about any potential problems in the region.
7. Reject bales that seem heavy for their size or feel warm to the touch, as they could contain excess moisture that could cause mold or spontaneous combustion.
8. Purchase and feed hay within a year of harvest to take advantage of its nutritional value.
9. Store hay in a dry, sheltered area out of the rain, snow and sun, or cover the hay to protect it from the elements.
10. When buying in quantity, have the hay analyzed by a certified forage lab to determine its actual nutrient content.

Source: America's Horse

The Equine Digestive Tract

Any changes in the diet should be made gradually to avoid colic (abdominal pain usually associated with intestinal disease) or laminitis (painful inflammation in the hoof associated with separation of the hoof bone from the hoof wall), either of which can be catastrophic. A horse or pony breaking into the grain bin or being allowed to gorge on green pasture for the first time since the fall is headed for disaster. If you travel with your horse, bring his food along. For some horses, you may have to bring a supply of the water he is used to.

No matter what your horse looks like on the outside, and no matter what job you ask him to do, he has one thing in common with all horses - and, that is his digestive tract. Everything he eats must be processed through that tract in order to be used by his body for energy, growth, reproduction and maintenance of health.

Preventive Health Care

All horses need vaccinations and most need regular de-worming. The specifics should be discussed with an equine veterinarian. Every horse should be protected against tetanus. Other vaccines given routinely include eastern and western equine encephalomyelitis, equine influenza, rhinopneumonitis (equine herpes), and rabies. Vaccines for West Nile Virus are available. Whether to use other vaccines depends on your location and other factors.

Vaccinations

Vaccinations minimize the risk of infectious disease, **but cannot prevent disease in all circumstances. Equine vaccinations can be divided into two groups:**

Core Vaccinations, which all horses should receive, **and** Risk-Based Vaccinations, which depend on a horse's use, living conditions, age and other risks of exposure to diseases.

Core Vaccinations

The American Veterinary Medical Association defines core vaccinations as those, "that protect from diseases that are endemic to a region, those with potential public health significance, required by law, virulent/highly infectious, and/or those posing a risk of severe disease. Core vaccines have clearly demonstrated efficacy and safety." **These vaccines protect against diseases that have a high mortality (death) rate if a horse becomes infected.** They are all diseases that are acquired from the environment.

Tetanus

All horses are at risk of tetanus, **a usually fatal disease.** The causative organism, clostridium tetani, is present in the feces of horses and other animals, including humans. It is ubiquitous and abundant in the soil, and will survive there for many years, resulting in an ever-present risk of exposure. While not a contagious disease, tetanus is **acquired via infection of a wound, especially a puncture wound,** or through other exposed tissue.

Eastern/Western Encephalomyelitis

These diseases cause **inflammation of the brain and spinal cord.** If acquired, Eastern Encephalomyelitis (EEE) is 90% fatal, Western Encephalomyelitis (WEE) is about 50% fatal. **Transmission of these diseases is by mosquitoes from infected birds and rodents.** Humans are also susceptible to these diseases. EEE is primarily seen in the eastern and

southeastern United States. While WEE is seen primarily in the western and mid-western US, WEE variants have sporadically caused outbreaks in the northeastern and southeastern states.

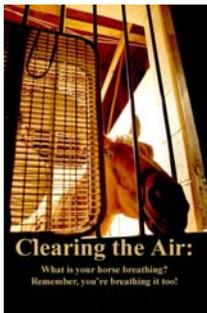
Rabies

While the incidence of rabies in horses is low, the disease is **always fatal**, and has considerable public health significance. **Equine exposure usually occurs from the bite of a rabid animal** (primarily wildlife), usually on the muzzle (since horses are very curious) or legs. The virus travels via nerves to the brain, where it causes inflammation and death. The incubation period in horses can be quite long, and symptoms near the end can mimic colic. **Transmission to humans can occur** via saliva of infected animals contacting open wounds.

West Nile Virus

West Nile Virus (WNV) first entered the US in New Jersey in 1999. It rapidly spread up and down the east coast, and then nationally with surprising speed. **WNV is the leading cause of arbovirus encephalitis in horses and humans in the US.** The virus is transmitted from an avian reservoir to horses, humans and several other species of mammals. The virus is not transmitted directly from horses to humans, or humans to horses. The fatality rate for infected horses is approximately 33%, with 40 % of surviving horses showing residual effects.

Risk-Based Vaccinations



Equine Influenza

Influenza is **one of the most common respiratory diseases** of horses. It is a **highly contagious viral disease** and spreads rapidly thru groups of horses via aerosolized droplets dispersed by coughing. The disease occurs sporadically, introduced by an infected horse, so quarantining all new additions for 14 days is a major factor in preventing influenza. The severity of clinical signs depends on the horse's degree of immunity. **All horses should be vaccinated against influenza** unless they live in a closed and isolated facility, with no equine-related visitors.

Equine Herpes Virus (EHV-1, EHV-4) ~ (Rhinopneumonitis)

Both EHV-1 & EHV-4 are **infectious diseases of the respiratory tract**, causing disease that can range from sub-clinical to severe. It is especially common when young horses from different places are commingled. EHV-1 also causes **abortion in late pregnancy mares**, and **paralytic neurologic disease**. It is spread by nasal secretions, either directly or carried on people and equipment, and by aborted fetuses and fluids in the case of EHV-1. Vaccination can protect against the respiratory and abortion forms, but not the neurologic form.

A genetic variant of EHV-4 has recently been seen. This form can cause **severe neurologic disease and frequent deaths**. Vaccination against the respiratory form is recommended for young horses, and for horses showing, or living with horses that travel and compete.

Potomac Horse Fever

Recently re-named **Equine Monocytic Erlichiosis**, this is a sporadic disease seen primarily in the late spring to early fall. It has been associated with high populations of Mayflies. Signs may be mild to severe, and include **fever, lethargy, laminitis and diarrhea**. Vaccination is

only recommended for those horses traveling to areas of high incidence. The vaccine has become less protective against the current strain.

Strangles

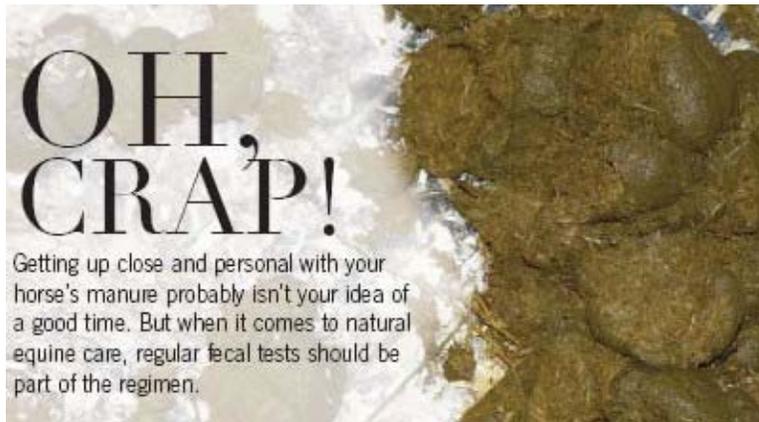
Strangles is a **highly contagious respiratory disease** characterized by moderate to high fever, swollen lymph nodes, and copious, thick nasal discharge. It is **transmitted by direct contact** with an infected horse, contact with contaminated feeding or watering equipment, grooming tools, tack or people. It can survive in the environment for a variable period of time. Vaccination is recommended for horses living where strangles is a persistent problem, or for horses at high risk of exposure.

Suggested Vaccination Schedule

Disease	Type Vaccine	Administration	Earliest Age of Initial Vaccine	2nd Vaccine Interval	Reactivation Interval
Tetanus	killed bacterin toxoid	intramuscular (in the muscle)	3 months	1 to 2 months	later yearly
Encephalomyelitis Eastern/Western	killed virus	intramuscular	3 months	1 to 2 months later	yearly, before insect season
Rhinopneumonitis*	killed virus	intramuscular	3 months	1 to 2 months later	every 3 months during epidemic/before shipping
Strangles Equine Distemper	killed bacterin	intramuscular	3 months	1 month later	every 3 months during epidemic/before shipping
Rabies	killed virus	intramuscular	3 months	1 time per year	yearly
Potomac Horse Fever	killed bacterin	intramuscular	3 months	3 weeks later	yearly
West Nile					

Equine Disease Symptoms

Disease	General Signs	Spread
Tetanus	Difficulty eating or walking, overreaction to noise, stiffness, elevation of the 3rd eyelid.	Not contagious; caused by punctures and wound infection
Encephalomyelitis	Often fatal; fever, staggering, circling, head pressing, depression and sleepiness.	Not contagious, but spread by mosquitoes.
Equine Influenza	Rarely fatal; cough, loss of appetite, fever, depression, muscle soreness, discharge from the eyes & nose.	Very contagious; keep affected animals isolated.
Rhinopneumonitis	Respiratory distress; nasal discharge, cough, fever; causes abortion in pregnant mares.	Very contagious; keep affected animals isolated.
Strangles	Fever, swollen jaw glands, loss of appetite, cough, nasal discharge, can cause abortion in pregnant mares.	Very contagious; keep affected animals isolated.
Potomac Horse Fever	Lethargy, anorexia, fever, colic, laminitis, colitis, and diarrhea.	Spread during insect season, vector unknown.



De-worming Your Horse

Prior to starting any de-worming program, a fecal exam should be done. This will help to determine your horse's parasite load, the efficacy of your current parasite control program, and which de-worming program your horse should go on. There has been parasite resistance reported with all

de-wormers, so it is highly desirable that a fecal exam is also done two weeks after de-worming. This will check to see if your horse has worms that are resistant to the de-wormer you are using. Just bring a fresh fecal ball; and your vet will take care of the rest!

De-wormers

There are a variety of de-worming products on the market today. Most will do an excellent job of protecting your ADULT horse against internal parasites when used appropriately. To avoid developing worms that are resistant to the available de-wormers, **it important to use them in a slow rotation**, as in the programs outlined below.

Good Practices

To minimize your horse's exposure to parasites, **all horses that share a pasture should be de-wormed at the same time.** When adding a new horse to the pasture, it should be de-wormed several days before it is turned out onto the field. **Horses under 1 year of age or thin and debilitated horses require special de-worming programs;** contact your vet for a specific program for these horses.



De-worming Products

Ivermectin: The first paste de-wormer to kill bots at any stage in the horse. It is also responsible for the vast decrease in verminous arteritis colics by killing the large strongyle larvae that can live in the mesenteric artery (the main artery supplying blood to the intestines). De-worming interval with ivermectin is 8 weeks. Not recommended for horses under 4 months of age. (Eqvalan, Zimectrin, Equell)

Moxidectin: The newest de-wormer on the market kills bots at any stage. It kills small strongyle larvae encysted in the intestinal wall. These larvae are responsible for many of the late winter/early spring colics when they emerge from the intestinal wall. De-worming interval is 12 weeks. Not for use in horses under 6 months of age. (Quest)

Pyrantal Pamoate: Does NOT kill bots. At a double dose, does a good job of killing tapeworms. De-worming interval is 6-8weeks. (Strongid P)

Praziquantel: Excellent at killing tapeworms, does not kill strongyles or roundworms. Only comes combined with either Ivermectin or Moxidectin.

Fenbendazole: One of the original de-wormers. There is significant resistance of some worms to this drug, so check with us for its appropriate usage. It is most often used as part of a 5 day, double dose larvicidal treatment. (Panacur, SafeGuard)

Oxibendazole: Related to Fenbendazole, but little worm resistance. De-worming interval is 6-8 weeks (Anthelcide EQ)

Pyrantal Tartrate: Used as a daily de-wormer. Very useful in situations where not all horses on the premises are on a good de-worming program. Controls "incoming" parasites, horses must be de-wormed with either Ivermectin or Moxidectin prior to starting daily de-worming program, and then every 6 months thereafter. Not recommended for horses under 1 year of age due to rapid gastric emptying time.

De-worming Programs

Regardless of which program chosen, **it is important to have a fecal exam done just prior to starting a de-worming program in the spring.**

The results of the test, along with your horse's de-worming history, can help your vet choose the most effective program for your individual horse.

Below are some suggested de-worming programs. Your vet would be glad to personalize a de-worming program for your individual horse or horses.

safe-guard® (fenbendazole) Get Rotation Right Deworming Barn Chart

Time of Year	Deep Freeze (Winter)	Past Thaw (Spring)	Grazing Season (Summer)		First Freeze (Fall)	
Rotation	1	2	3	4	5	6
Compound	Fenbendazole	Ivermectin or Moxidectin	Pyrantel Pamoate	Fenbendazole	Ivermectin or Moxidectin (with Praziquantel)	Pyrantel Pamoate
Product (choose one)	 <p>Safe-Guard® Power-Dose®</p> <p><small>The registered trademark "Power-Dose" is the only one FDA approved to treat all stages of encysted small strongyles.</small></p>	<p>Ivermectin</p> <ul style="list-style-type: none"> • MERGAL™ • ZIMECTER™ • NETESTER™ 1.875% • EQUILL™ • WENDEAL™ <p>Moxidectin</p> <ul style="list-style-type: none"> • MOBET™ 	<ul style="list-style-type: none"> • STORM® • ROTECTIN™ • STOMYLICARE™ 	 <p>Safe-Guard® Paste</p>  <p>Safe-Guard® Equi-Bits®</p> <p>Moxidectin</p> <ul style="list-style-type: none"> • MOBET™ PLUS 	<ul style="list-style-type: none"> • STORM® • ROTECTIN™ • STOMYLICARE™ 	<ul style="list-style-type: none"> • STORM® • ROTECTIN™ • STOMYLICARE™
Treats	<ul style="list-style-type: none"> • General Parasite Control • Encysted Small Strongyles (S₁, S₂, S₃) 	<ul style="list-style-type: none"> • General Parasite Control • bots 	<ul style="list-style-type: none"> • General Parasite Control 	<ul style="list-style-type: none"> • General Parasite Control 	<ul style="list-style-type: none"> • General Parasite Control • bots and Tapeworms 	<ul style="list-style-type: none"> • General Parasite Control
Date Administered	Day Month	Day Month	Day Month	Day Month	Day Month	Day Month

Why Rotate?

Helps Prevent Resistance
Rotating the chemical class of dewormer – not just the brand name – reduces the risk of worms developing resistance to a specific product.

Treats All Parasites
An effective worm control program targets the most significant parasites at the optimal time with different classes of dewormer to lower the odds of re-infection as it helps reduce resistance.

Pinworms:

- Egg passed in fecal material
- Common symptom is itching of the tail

Ascarids (fly larvae):

- Primarily a problem in young horses
- Produce migrating larvae
- Damage liver and lungs
- Cause coughing, shortness of breath under work,
- Depress immune system
- Can become life threatening

Bots (fly larvae):

- Fly annoyance can interfere with feeding and affect nutrition
- Eggs often found on the legs and muzzle
- Larvae migration may cause lesions of the mouth and esophagus and possibly skin
- Extreme infestations can cause severe damage in the stomach and intestine

Tapeworms:

- Hard to diagnose
- Don't often show up in fecal egg examinations
- May cause sporadic colic, impaction or inappetence.

Large Strongyles:

- Migrating larvae may cause weakening of the arterial wall
- Can lead to aneurysm.
- In rare cases, artery can rupture causing rapid death
- May cause thromboembolic colic, resulting in serious illness or death.

Small Strongyles:

- E₁, E₂, and E₃ stage encysted larvae can survive repeat deworming
- E₃ can account for 75% of this parasite burden
- Must be treated to eliminate threat
- May cause poor performance, food utilization, or a dull hair coat
- Extreme cases can result in anemia, recumbent colic, diarrhea, weight loss, edema and death

For more information on deworming, rotation and parasites visit www.GetRotationRight.com

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Source: Evergreen Equine & Intervet/Schering-Plough Animal Health

HEALTHY HORSE