

MHCO Spring Clinic - General Health Care for the Miniature Horse

By: Michelle Courtemanche D.V.M.

The following handout is based on information from reputable sources as well as the experience and opinions of the author. **Participants are encouraged to take as much from the clinic as they wish and to seek the advice of their veterinarian for any concerns regarding their own animals.**

The Physical Exam

Whether looking at your own horses or at horses you might want to buy, it is important to get a general idea of their health.

- **Body condition** – Miniatures have a tendency to be overweight but being too thin is also a problem. You should be able to feel the ribs but not see them. There should be good flesh cover over the skeleton. Thick winter coats can fool you so be sure to put your hands on your horses in the winter months to assess weight.
Overweight horses will have fat pads over the ribs and tail head and may have a “trench” along the spine. Obesity can lead to founder and other problems and make the horse more prone to hyperlipidemia (elevated levels of fat in the blood) if he should go off his feed.
Underweight horses have prominent skeletal structures (especially ribs, spine, shoulder blades, tail head, hips), and are often lethargic. Keep in mind that a pot belly can be present on an underweight horse. The hair coat and hooves are often poor from lack of nutrients. Underweight horses should have their teeth and parasite burden checked.
- **Hydration status** – *Demo: Check for dehydration by pinching up a skin tent on the neck and watching for it to return to normal in about 2 seconds. You can also lift the upper lip to look at the gums. They should be moist and pink in colour. When you press your finger on the gums and blanch them the pink colour should return within 2 seconds of you removing your finger.*
- **Hair coat** – Should be shiny and of appropriate length/thickness for the time of year. Miniatures often have a thicker coat than large horses even in the summer. A poor hair coat with or without a pot belly can be a sign of internal parasites.
- **Eyes** – Should be bright and clear with no discharge. Keep in mind that horses are exposed to a lot of allergens so some debris in the corners of the eyes can be acceptable as the body’s way of clearing this debris. Excessive discharge that is thick and pus-like combined with a squinting eye or reddened mucous membranes or clouded eye are causes for concern.
Demo: Use a penlight to look in your horse’s eyes. If the cornea and lens are clear you will see 3 points of light reflected back. You may also notice corneal scratches or ulcers with this light but usually special stains are required to detect these.
The eyes are a common cause for concern and problems should not be taken lightly. Minor irritations, from flies for example, can be easy to deal with but more serious problems can get out of hand quickly. Call your vet if you are concerned (ie. if the eye is very swollen and painful (squinted shut), there is noticeable damage/trauma to the eye or lids, sudden development of cloudiness etc. or any apparently mild eye problem that does not get better in a couple of days).

FAQ – “I always keep a tube of antibiotic eye ointment in the barn. Is it a good idea to start treating my horse’s eye as soon as I notice a problem?”

A – Many of these ointments are a combination of several different antibiotics which may be more than your horse needs. It is never a good idea to overuse antibiotics. Pay attention to expiry dates, keep the tube clean between horses (don’t stick the tube into the horse’s eye. Apply the ointment with a gloved finger.) Some antibiotic ointments also contain hydrocortisone (ex. BNPH). Hydrocortisone is contraindicated if your horse has a corneal ulcer. Do not use it unless your vet has

ruled out an ulcer. Ask your vet what they would like you to use as a first line treatment for uncomplicated eye conditions.

- **Nose** – Should be clean and dry. A small amount of discharge is acceptable as long as it is CLEAR and WATERY. This can be a response to mild environmental allergens or strong smells.
 - A thick, white/yellow/green discharge indicates a more serious problem that may require antibiotics. If only one nostril is affected it may be a tooth root abscess or sinusitis, both of which are important to treat.
 - Young horses (generally < 3 years) can develop **warts** around their muzzle. These are caused by a virus and are very common in youngsters (and will spread between them). They are ugly but will resolve on their own in time. Keep in mind that horses are not allowed to cross the border while they have these warts.
- **Mouth** – Always check the bite on a Miniature intended for breeding. The upper and lower incisors should meet evenly. Horses with over or underbites are not good candidates for a breeding program.
 - Teeth should be checked by your vet every year for sharp enamel points and floated if necessary. Horses form enamel points on the cheek side of the upper molars and the tongue side of the lower molars. Having sharp points can cause sores in the mouth and interfere with eating and chewing leading to weight loss.
 - Demo: Trying to feel points yourself by putting your hand in the mouth can result in a serious crush bite and is not recommended. Press your horse's cheek up against the upper molars from the outside. If they react painfully they may have sharp points.*
 - Teeth are a reliable way of aging a horse up to about 8 years of age. After that it's mostly an estimate.
 - Tooth bumps are bony lumps under the jaw or on either side of the nasal bone caused by large roots of developing molars. The small size of the Miniature's head and the large size of the teeth make them prone to this condition. These generally appear when the horse is 2 years old and can last a couple of years. They should be non-painful to pressure. Call your vet if they become painful, develop heat or if pus drains from the area as this may indicate a problem with a tooth root.
- **Hooves** – Should be trimmed regularly (every 6-8 weeks) by a qualified individual. In Miniatures be careful not to let the heels get too long leading to clubbed feet. The front wall of the hoof should follow the angle of the pastern.
 - **Founder or laminitis** is a painful condition of the feet localized over the toes. Founder can be caused by a lot of things but in Miniatures the cause is usually obesity or unlimited access to lush, green grass. Signs of founder include warm hooves, lameness (rocking back on the hind feet and placing the front feet forward to take pressure off of the toes), and bounding pulses to the feet. Suspected founder requires prompt attention from your veterinarian.
 - **Thrush** is a foul smelling, black discharge around the frog and should be treated. DON'T use bleach or Coppertox. Thrushbuster is a better choice. GREEN IS BAD, PURPLE IS GOOD.
 - **Cracks** should be monitored carefully by your farrier. Hooflex and other conditioners applied to the hoof wall are generally thought to be useless for adding moisture. Changes in feed supplements can help feet over time.
- **Cardiovascular System** – Includes the heart and blood vessels. The normal heart rate for a resting horse is 24-40 beats per minute. Keep in mind that exercise, stress, fear, and pain can cause an increased heart rate. To listen to the heart you need a stethoscope. Place the scope on the left side wall of the horse's chest under the point of the elbow. One heart beat sounds like "lub-dub" (2 sounds). Count the number of "lub-dubs" in 15 seconds and multiply the number by 4 to get the rate per minute. It is normal for a resting horse to "skip" the occasional beat. If you don't have a scope you can take the pulse under the jaw, on the side of the face or on the lower legs.
 - Demo: Try to locate the pulse in the following locations; under the jaw, facial artery, digital arteries.*

- **Respiratory System** – The normal resting respiratory rate is 8-16 breaths per minute. Watch the horse's flank for 15 seconds and count the breaths, then multiply by 4. Increased respiratory rate occurs with exercise, pain, and lung diseases (heaves, pneumonia, allergies etc.). Also note flared nostrils at rest, increased effort to breathe in or out, coughing at rest or with exercise.
- **Temperature** – The normal temperature for a horse is 37.2°C-38 °C or 99.5°F–101.5°F. Digital thermometers are great but the old glass ones work just as well. Take the temperature rectally using lube, Vaseline or your saliva on the thermometer. High temperatures (fever, hyperthermia) can be caused by viral or bacterial infections (often lungs), some tranquilizers, and confinement in trailers or strenuous exercise in hot weather (possibly leading to heat stroke). Low temperatures (hypothermia) can be caused by shock or extreme cold especially when the horse is wet (ex. horse falls in a pond mid-winter).
- **Gastrointestinal Tract (GIT)** – Horses are grazers who do best with frequent, small meals throughout the day. Ingested feed material is continuously moved through the many feet of intestine. *Demo: By placing a stethoscope on either side of the horse's caudal abdomen (behind the last rib) you can hear gut motility. The sounds can be quite amazing to listen to. Absence, marked decrease or increase of sounds can indicate a problem (other signs of illness should be present).*
 - Colic** is a term used to describe any pain originating from the abdomen although we generally use it to mean GIT pain. GIT Colic can be caused by excessive gas, spasmodic intestines, partial or complete impaction of the intestine with food material, displacement of the intestine within the abdomen, or twists in the intestine. Mild colics can resolve easily after minimal or no treatment, moderate colics may need pain medications (Banamine) and/or fluid administration and severe colics may require hospitalization and possibly surgical correction. Signs of colic include sweating, pawing, rolling, flank watching, increased heart and respiratory rate, stretching, kicking at belly, yawning, lip curling (Flehman response) etc. Every case of colic should be seen by your veterinarian for evaluation and treatment. Surgical colics have the best prognosis if diagnosed early.
 - **Choke** refers to an obstruction of the esophagus. Horses can choke on a lot of different things but unsoaked beet pulp, pelleted feed and whole apples are common culprits. Affected horses will be distressed, and likely have feed material coming from their nostrils. They usually make repeated attempts to swallow and a gurgling sound can sometimes be heard in their neck area. Sometimes the obstruction can be felt as a hard lump in the jugular groove. In most horses the esophagus runs along the left side of their neck but there are exceptions. Although blocking the esophagus does not directly obstruct breathing, a choke can become an emergency if it goes on too long. You must remove all feed from the horse's access and you can try to flush some water into the horse's mouth with a syringe. Don't let him eat his bedding either! If the flushing doesn't quickly resolve the choke, call your vet. Long standing choke can cause damage to the esophagus by pressure necrosis (death of tissue following obstruction of blood flow) and subsequent strictures (narrowing) when/if they heal with scar tissue (predisposing the horse to further episodes of choke). Acutely the horse may inhale feed material into their lungs after it backs up in the esophagus leading to aspiration pneumonia. After the choke is resolved a horse should receive soft or soaked feeds in small amounts for a few days. Antibiotics may be prescribed by your veterinarian as a precaution.
 - **Gastric ulcers** are a risk for any horse that is under stress. A horse that is required to do anything more than walk around a field eating can be stressed. Signs of stomach ulcers include weight loss, preferring hay to grain, and grinding the teeth (bruxism). A gastric endoscope exam is needed to definitively diagnose ulcers but many people treat if they suspect them and know their horses are at high risk. Several oral medications/preventatives are available on the market. Consult your vet if you are concerned about your horse.

Preventative Care for your Horse

General preventative care includes your vaccination and deworming program as well as dental care and hoof care (already discussed).

- **Vaccinations** – Your personal program is likely to consist of a few core vaccines and a few optional vaccines. Your veterinarian can recommend vaccinations based on the prevalence of disease in your

area, risk of exposure for your horses, efficacy and safety of the vaccine, and severity of the disease. Basically you weigh the risks of the vaccine against the risks of the disease. The standard core vaccines are Rabies and Tetanus (high risk of exposure and tragic outcome if infected), Influenza and Rhinopneumonitis (high risk of exposure if animals are moving in and out of the barn, going to shows etc.). You may choose not to give Flu/Rhino if you never have horses moving in and out. This vaccine is also available for intranasal administration to provide local immunity at the mucosal level (the site of entry for the virus). Many people also choose to vaccinate against West Nile Virus. The risk is real in Ontario, the vaccine appears to work well (at least to increase survival if a horse becomes infected), and unvaccinated animals frequently die from the disease. Vaccines are also available for Eastern/Western Equine Encephalomyelitis, Strangles (*Streptococcus Equi*), Potomac Horse Fever (*Ehrlichia risticii*), and Botulism (*Clostridium botulinum*). All of these have pros and cons and the decision to use them depends on your situation. Ask your veterinarian what they suggest for your herd.

- **Broodmares** should receive their annual boosters 4-6 weeks before foaling to insure maximum colostral antibodies for the foal. Many people will booster for rhino at 5, 7 and 9 months gestation (Pneumobort K). The effectiveness of the vaccine for preventing abortion is widely debated.

- **Foals** from dams that were vaccinated prior to foaling and that nursed well within 6 hours of birth will not require vaccination until 6 months of age followed by 1-2 boosters at 1 month intervals and at 1 year of age.

- **Show Horses** were often boosted for influenza at frequent intervals throughout the show season. The newer vaccines are reported to be effective for an entire year whether given intra-muscularly or intra-nasally.

- **Deworming** - There is a lot of variation in protocols for Ontario. Once again I encourage you to ask your vet to set up a protocol for your horses. Protocols will differ for different age groups. There are active debates over daily dewormers, fast vs. slow rotation of deworming products and the timing of administration (is it necessary to deworm in the hottest summer months or coldest winter months?).

-Development of **resistance** has already occurred in some species and responsible use of drugs is very important. This is the main argument against daily dewormers.

-**Moxidectin (Quest)** has been reported to be dangerous for Minis due to its very narrow safety margin and trouble in estimating a Miniature's weight. It is recommended that you choose another product for Miniatures.

-If you have a horse with **no known history of deworming** (ie. most horses purchased from auctions) you may have large numbers of roundworms (*Parascaris equorum*) and must choose your deworming product carefully. Drugs that kill worms quickly can be dangerous when large numbers of parasites are present and all die at once (severe impaction colic requiring surgery). The most dangerous products are Pyrantel (strongid) and Ivermectin (Eqvalan). Choose a product that is known for a slow kill (is less effective against roundworms. A safe product would be Fenbendazole (Panacur).

-Special treatment is required to kill the equine **tapeworm** (*Anoplocephala perfoliata*). A double dose of Pyrantel (Strongid) is often used. Praziquantel will soon be available in Canada specifically for Tapes (combined with Ivermectin in a product called Equimax).

-**Broodmares** should be dewormed 1 month before they foal and again on the day they foal.

-**Foals** should be dewormed for the first time at 2 months and then every 2 months until 1 year of age.

*Thank you for attending the 3rd annual MHCO Spring Clinic!
Have a great show season!*