Integrative Therapies for Horse and Rider

HOLISTIC HORSE

Prepare Your Horse for his Winter Nutritional Needs Now

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Your horse has a calendar and a watch. He can tell that the days are getting shorter. This is not the time of year to shed unwanted pounds. This is the time of year to store as much as possible for the coming winter, because “time” is running out ALREADY.

The symptoms we see in animals and people in the fall and spring are induced by the change in sunlight. An example of this comes in the fall as the sunlight becomes less and less. This decrease in light affects vitamin and mineral uptake and use. **Vitamin D**, naturally occurring in mammals and formed by UV radiation contact with the skin, is one example of a vitamin that is becoming a problem for horses as we give them more shelter and clothing. It affects calcium use and storage, along with many other minerals that are typically bonded into skeletal muscle and bone.

The sunlight part of the year allows the horse to store minerals for future use. Make use of the sunlight days to help your horse store and replenish supplies of minerals lost over the previous winter. Exercise and exposure to sunlight are ways to help your horse drive mineral intake into bone storage.

As the **season changes occur**, we often see problems in previously compromised animals first, as they are already mineral and vitamin deficient. They are unable to efficiently and correctly process the chemical reactions that the body needs every day to live. This affects kidney function, muscle function, heart function, liver function, GI tract motility and absorption rates, learning and behavior expression, just to name a few.

ANTICIPATE AND AVERT PROBLEMS

We can **anticipate the possible problems** that will be arising come December and begin to take steps to avert them. Many horse owners elect to cut back on feeding concentrate feeds

during the summer, leaving the grass pasture “lunch room” to make up for what they aren’t getting in home cooked meals. This is a mistake. During this time of plenty, it is important to not focus on adding pounds of glistening flesh so much as adding appropriate, bone density increasing vitamins and minerals – the kind of poundage that you can’t easily measure with the girth of the saddle.

Lethargy is a sign that your horse is responding to a poor metabolism. When you give him stuff to help his metabolism, he acts normal. When you take it away, he immediately acts lethargic. Many horses have not accumulated enough of the right "leftovers" in the back of the fridge to get them through the dark days; they can’t eat enough during the winter to make up for it, and they can’t process what they have stored without leaving them more at a loss the next year. Draft breeds with their lower metabolic rates show symptoms quickly because they need metabolic help more consistently. Fast twitch muscles are fed by glucose, which is stored in the muscle and, when depleted, the muscle converts to ketones temporarily. After the activity, it replaces the glucose and removes the ketones. But this process is energy spending. Any horse who doesn't stand up straight, with cannon bones perpendicular to the earth, has muscle fatigue, because he is using his fast twitch muscles to do the job of his slow twitch muscles. This causes fatigue. Some draft breed horses have both problems. They have the metabolic issues discussed above, and they have the problem of poor foot balance and hind gut irritation, which cause them to not stand up straight, and so they are fatigued before they ever begin to move. Fatigue is the number one cause of injury.

Slow twitch muscles use glycogen. This is fed to them from the blood stream (to simplify the story) and can keep coming all day long, to a point. They don't burn a bunch of sugar up rapidly, and would rather store it for later use. But they don't often use it later either. Kind of like people who eat out a lot and bring home doggie bags that accumulate in the back of the fridge. During the warm months horses do very well on seed meal diets because they need to have the protein and vital elements to make muscle, and process bodily functions. They need grass/hay to make the glycogen. They don't need to have sugar (grain and excess calories) because they just store them in the back of the fridge. Genetically they don't have more screwed up **thyroids**. Horses need better food resources. In the darker part of the year, all horse breeds are beginning to show symptoms once attributed only to the breeds that genetically have slower metabolisms.

Compromised horses are affected in this way too. If they are not standing up against gravity straight, they develop problems of lethargy, weakness, and stress on joints, muscles, and organs. And we are seeing it in younger and younger horses.

SEASONAL SYMPTOMS

These mineral deficits expose themselves as symptoms of colic, muscle tetany, spasm, weakness, and can even evolve into skin disorders such as pruritis. Those horses most compromised, having heavy fat pads in unattractive places (cottage cheese thighs as it were) and those horse with weight gain problems due to GI irritation (hard keepers who may or may not also become non-sweaters), are the ones who will begin to have symptoms of lowered metabolism sooner in the season each year. Each year, closer and closer to June 21, these horses will begin “seasonal” symptoms such as heaves, founder, COPD, anhydrosis, allergic reactions and gas colics. The impaction colics often are clustered in the fall, when smooth muscle fibers have become more sluggish, but can occur during this time of year if the horse is not getting enough sunlight due to daytime stabling, blanketing, and lack of turnout.

Low pressure systems can precipitate the episodes of symptoms because of the effects on the baroreceptors, rennin-angiotensin system, and to put it simply, gravitational forces on water weight. Veterinarians are familiar with the term medullary washout, which refers to the altered excretion rate for minerals such as Calcium, Magnesium and Potassium. In an acidic body, these are already depleted, and when affected in such a way, are excreted at a greater speed.

From December 18 to December 25 the sunlight hours are the shortest of the year. This means that animals will have the least absorption of calcium during these days, as their vitamin D levels will be lowest. This will precipitate all kinds of reactions in response to decreased calcium, including muscle weakness, spasm, and tetany, and includes smooth muscle function as well as striated muscle. Organ tissue will also show spasm and dysfunction more during this time. Horses not previously showing overt signs of problems will have the opportunity to respond to these environmental influences, but as the daylight increases, as little as 1 minute on December 25, they will also show improvement quickly. Rather than wait until December 25 to see if you have been able to dodge the possible, sudden, emergency situations brought on by unforeseen elements (that we observe annually and for which we hold rituals and holidays and for which we address with changes in fashion and style) take charge of it NOW, in June.

If your horse has been compromised for several years, such as the horse who “has always had problems gaining/losing weight” or “has always had bug allergies, so much so that we bought him his own boutique clothing in which to hide from the bugs,” beginning in June won’t fix the

problems this year, but will be a good start at giving your horse a chance at a more comfortable year next year, and the year after that, and after that.

SUN, SUN AND MORE SUN

Allowing for more sun time this summer will thus increase GI absorption of Calcium and you can help to reduce its loss by buffering the gut with grass hay. Oxygen therapies like hyperbarics, ozone can also help to reduce the acidic state of the body. Legumes (alfalfa, soy, clover) increase calcium excretion by causing acid balance in the blood, thus causing increased calcium excretion at the nephon tubules.

By increasing the buffering agents and reducing acid producing agents in the diet we can increase appropriate mineral uptake. Other daily benefits occur with reducing environmental elements that block the correct use of minerals, such as giving filtered water through a drinking water hose only, and adding buffering agents such as grass, grass hays and balanced phosphorous, calcium/magnesium and zinc agents. Many of these horses also need additional iodine to raise their metabolic rates to a normal level so that the chemical reactions that take place inside their bodies can use and store the minerals correctly.

DAILY METABOLISM CHECK

Monitor metabolism by simply taking morning temperatures. This simple record of what is your horse's lowest temperature of the day can help you to address the underlying cause of low metabolism. Any temperature under 100 degrees is an indication that your horse doesn't process his groceries correctly; he can't correctly turn his food into mineralized bone, into muscle and into neural processing; he can't protect herself from the changes in the environment that he recognizes as early as June 24, just seconds less of sunlight than on the longest day of the year and she can't prepare for the shortest day of the year, when he needs to have enough stores put away to make it until Christmas.

*(For information on how to interpret body temperatures, consultation on how to help your horse improve body stores for vital minerals and other questions or to contact Dr. Amy Hayek or Dr. Bill Ormston, visit our website at **www.HYHH.TV**.)*