

Equine Metabolic Syndrome and Pituitary Pars Intermedia Dysfunction

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In this age of the obesity epidemic we have all become more aware of the negative health effects of carrying around extra weight. Obesity spans the species and include 25-40% of our equine companions depending on the study.



Equine Metabolic Syndrome (EMS), a condition characterized by insulin resistance and excessive accumulations of fat, is the condition that often affects the “easy keepers”. While it may seem desirable (and economically advantageous) to own a horse that can get fat on air, these horses can suffer from health problems including laminitis, arthritis and colic associated with their excess fat accumulations.

Another common cause of abnormal fat deposition in the horse is Pituitary Pars Intermedia Dysfunction (PPID) aka. Equine Cushing’s disease. Caused by a mass in the pituitary gland, this disease is characterized by abnormal fat deposition (crest and tail head) and a long curly hair coat that does not shed normally in older horses. Consequences of PPID include laminitis, increased internal parasites and slower healing.



Equine Metabolic Syndrome Insulin Resistance	PPID (Pituitary Pars Intermedia Dysfunction) Cushings disease
Easy Keeper (fat all over including above eyes, tail head, over ribs, around sheath)	Fat in some places (cresty neck, tail head fat pad), Thin in others (ribs easily palpated, pot bellied, loss of back muscle)
Genetic Predisposition (Morgans, Ponies, Paso Finos and Arabians) (also warmbloods and QH)	Long curly haircoat that does not shed
Any Age	Older (usually >15 years)
Insulin Resistant (increased levels of insulin in the blood to keep glucose at an appropriate level)	Loss of muscle mass
Laminitis	Increase in drinking and urinating
	Laminitis

How do you know if your easy keeper is affected by EMS or PPID? A physical exam by your veterinarian is a good first step and should be followed up by blood work for a definitive diagnosis. (ACTH or dex suppression for PPID and insulin and glucose levels for EMS)

Treatment for PPID is palliative in that it helps to decrease signs of disease but is not able to actually cure the underlying cause. In addition to medication (Pergolide) given orally, clipping an excessive hair coat in the summer can be done to keep horses comfortable. Blood work should be done semi-annually to adjust medication.

EMS is treated much like type 2 diabetes in people, through a combination of diet and exercise. If your horse is sound enough to exercise then get started. Even trotting around on a lunge line for 15 minutes a day can be helpful. As far as diet is concerned, while it is important to restrict calories, and common sense would suggest giving your EMS horse a “handful” of whatever everyone else is eating, this may not be the best solution. If you look at a bag of feed you will often see that it is supposed to be fed at a rate of “x” pounds per day. If you are feeding only a handful of a feed that is supposed to be fed at 5 pounds per day your horse will not be receiving the amount of protein, vitamins or minerals he needs for optimal health. Instead, look for a lower calorie feed or a supplement that will supply all of your horse’s protein, vitamin and mineral needs without excess calories. Talk with your veterinarian for specific recommendations.

Beyond the feed bin, consider where your horse spends the bulk of his day, on pasture. Below are options to help decrease grass intake in your easy keeper.

1) Limit turnout time to a few hours in the early morning when the sugars in the grasses are at their lowest levels.

2) Put horses on a dry lot with no grass, and feed low NSC (non-structural carbohydrate) hay.

3) Muzzle horses and allow regular turnout.

4) Create a “paddock paradise” <http://www.all-natural-horse-care.com/paddock-paradise.html> to limit access to grass and increase natural exercise.



More information about pasture management for your easy keeper may be found at www.safergrass.org .

All of the above options can be done in combination or to different degrees. If your horse spends all or part of his day in a stall or in a dry lot, consider purchasing a hay net with small holes to encourage him to eat his hay slowly throughout the day. <http://www.thinaircanvas.com/nibblenet/nibblenetframe.htm> .

Getting an easy keeper to slim down or managing a Cushinoid horse can be major challenges. However, with some work on your part and support from your veterinarian, you can help your horse stay healthy and active into their 20’s and beyond.