



10261 Co Rd P38A ~ OMAHA, NE 68142
PHONE: 402-533-1151 ~ FAX: 402-533-1159
www.nebraskaequine.com
Michael J. Black D.V.M.
Michael P. Thomassen D.V.M.
Kimberly N. Conover D.V.M.
Amy A. Cook D.V.M.

Understanding Equine Metabolic Syndrome

When an easy keeper is not just an easy keeper

Dr. Amy Cook

“Doc he has always been an easy keeper” is a common response from owners when starting the conversation about their horse’s weight and my concern for Equine Metabolic Syndrome. I certainly do not doubt Brownie has always been on the chunky side and the owner has not noticed any issues up to this point, however understanding Equine Metabolic Syndrome and being able to identify individuals at risk is key to preventing problems down the road.

What exactly is Equine Metabolic Syndrome and why should I care?

Equine Metabolic Syndrome (EMS) is a metabolic disorder that can lead to the development of laminitis in horses, ponies and donkeys. Laminitic events can be mild or severe. Mild laminitic events may not even be identified by owners. More severe or chronic laminitis can affect soundness, and in the worst-case scenario become life threatening. Early identification and management of horses with a potential to develop EMS is key to preventing a severe laminitic episode.

How do you identify individuals prone to EMS?

Horses with an increased risk of EMS may be identified by body type, insulin levels on bloodwork and/or a history of laminitic episodes.

Body Type: Equines that are easy-keepers and/or obese are at an increased risk to develop EMS. They commonly will have areas of patchy fat in the neck, shoulder and tailhead areas. There appears to be a genetic pre-disposition to the development of EMS and certain breeds/types of equines such as ponies and Morgans have an increased risk.

Insulin Levels: High insulin levels on bloodwork can be suggestive of EMS, as the presence of insulin dysregulation is a hallmark of individuals affected by EMS. There are additional values such as leptin that are also helpful in evaluating insulin dysregulation.

Laminitic Episodes: Horses with a history of laminitic episodes without an obvious causative factor should be a high suspicion for EMS.

If my horse is identified as “at risk” or affected by EMS what can I do?

There are several ways to address EMS including diet, exercise and supplements or medications. These recommendations will vary depending on the individual, existing diet, if currently affected by EMS, etc.

Diet: Weight loss is often the key to addressing EMS. Evaluate what your horses is currently eating. Changing from alfalfa hay to grass hay may be all that is necessary. For horses on pasture, modifications may range from limiting pasture time, pasture time in a grazing muzzle to eliminating pasture grazing all together. Most horses do not need much grain so decreasing amount of grain or type of grain. Many EMS horses are better served being fed a ration balancer versus a grain mix.

Exercise: Exercise is helpful to encourage weight loss and increase insulin sensitivity. However, amount of exercise may be limited if dealing with an acute bout of laminitis.

Medications: There are several medications and/or supplements that your vet may recommend assisting in weight loss and improving insulin sensitivity. Thyro L and Metformin are two medications that may be recommended to help improve insulin sensitivity.

Are Equine Metabolic Syndrome and Cushing's Disease the same thing?

EMS and Cushing's Disease (or Pituitary Pars Intermedia Dysfunction) are not the same disease. That said, horses with Cushing's disease can develop insulin dysregulation due to high circulating steroid levels and horses can have EMS and Cushing's Disease. Horses that have EMS or are EMS prone and have Cushing's Disease are at a very high risk for the development of laminitis.

Is my horse doomed if he has EMS or is identified as an EMS prone horse?

No. Early identification and implementation of dietary changes, exercise and medications, if needed, can be very successful at managing EMS and/or preventing the development of EMS.

As an owner be honest with yourself about what your horse, pony or donkeys actual body condition score is. Don't ignore the horse that goes out on grass and gets just a little sore in his feet. Watch for these early warning signs and make changes while there is time.