

# **Equine Metabolic Syndrome**

(Hey Doc, Is My Horse Too Fat?)

As horse owners, it is our job to do what we can to keep our four legged-companions healthy and comfortable. As with our own bodies, part of keeping our trusty steeds in good health includes keeping them in good shape and at a sensible weight. Although overweight horses do not seem prone to the same types of cardiovascular issues as their human counterparts, they do suffer ill effects from carrying extra pounds. Overfeeding of weanlings and yearlings is one of many factors that can lead to Developmental Orthopedic Diseases (such as Phytitis or Osteochondrosis Dissecans). Extra weight on adult horses can exacerbate orthopedic problems, such as arthritis or laminitis.

The basic causes of a horse being overweight are too much feed and too little exercise. However, in recent years, a condition called Equine Metabolic Syndrome has been recognized as a contributing factor to the problem of obesity in horses. This equine syndrome shares some resemblance to the pre-diabetic state in humans, which is associated with obesity, high blood pressure and atherosclerosis.

Equine Metabolic Syndrome (EMS) is a condition in which a horse's body is geared towards weight gain rather than weight loss. This is thought to be due to hormones (cellular messengers) that are released from abdominal fat cells that interfere

with the body's glucose regulation and energy storage system. As a result the body becomes programmed for energy (i.e. - fat) storage.

Horses that have this condition fit the stereotype of being easy keepers. These horses are also at increased risk for developing laminitis, which is a severe, life threatening condition. Breeds that seem prone to EMS include Spanish Mustangs, Morgans, American Saddlebreds, Warmbloods and ponies.

If you think your horse may have Equine Metabolic Syndrome, consult with your veterinarian regarding a blood test for this condition. A test commonly used at Loomis Basin Equine involves obtaining a blood sample from a horse that has been fasted for 12 hours to measure levels of glucose (blood sugar) and insulin (a hormone important in glucose regulation). If the ratio of these two substances is abnormal, then the horse in question is likely to have Equine Metabolic Syndrome.

If your horse is diagnosed with this condition, it is important to take measures to counteract its negative effects. Perhaps the most important thing is to get the excess weight off your horse. This should be accomplished gradually and with a combination of diet and exercise. It is important to avoid feeding items with a high glycemic index, such as pellets/grains/treats bound with molasses. Of the three hays most commonly available (grass, seed, or alfalfa), grass hay is the best choice. If this is the sole source of nutrition for your horse, you should also provide a good quality vitamin/mineral supplement. There are some commercially available vitamin supplements that specifically compliment grass hay based diets so check at your local feed store for a suitable product. In addition,

there are now several commercially available complete pelleted feeds with a low glycemic index that may be more appropriate for older horses with dental issues. Please consult with your veterinarian for help with formulating a diet for your horse, as it is important to reduce energy intake without causing a deficiency in nutrients vital to your horse's health.

Regardless of the cause, if our horses are overweight, it is not good for their long-term health and well-being. Taking a pro-active approach to your horse's general health and wellness can make a big difference to his quality, and quantity, of life!

Happy Trails!

Michelle Lee, DVM

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