

What management practices would you advise for a broodmare prone to metabolic syndrome?

Metabolic syndrome was a term first used in human medicine to describe a group of abnormalities in people, including obesity and insulin resistance that could lead to heart disease, stroke, and diabetes.

The term Equine Metabolic Syndrome (EMS) now is used to describe horses with similar abnormalities to those found in people and can lead to abnormal blood clotting, diabetes, and laminitis. Broodmares also may have abnormal ovarian cycles, making them difficult to get in foal.

Any breed or sex can be affected, but the syndrome is most common in pony breeds, Paso Finos, Mustangs, Saddlebreds, Morgans, and Warmbloods.

Affected horses typically are obese with abnormal fat depositions on the crest of the neck, loin, tail head, and in the sheath of male horses. Although not obvious unless an ultrasound examination is performed, these horses have increased fat deposits in the omentum of the abdomen. Affected horses often have chronic battles with laminitis or "founder."

The diagnosis of EMS is suspected based upon clinical signs of obesity and chronic laminitis. Most horses also will have an elevated blood-insulin level.

Unlike Equine Cushings, a disease with similar clinical signs, horses with EMS have a normal cortisol blood level and dexamethasone suppression test, although these tests usually are not needed to confirm diagnosis of EMS.

The most important goal of managing horses with EMS is preventing obesity and encouraging weight loss in those horses that already are over weight. The diet should consist of more forage than grain. When grain must be fed because the horse is in training or in foal, choose a grain that has a lower fat and starch content.

Grazing on lush, green pasture, particularly in the spring, should be avoided or at least limited. Grazing muzzles, limited turn out, and dry lots with hay supplementation are options for limiting pasture. Horses should be exercised, although this can be difficult in a horse already having laminitis. Forced exercise should not occur until any current laminitis issues have been resolved.

Medications and compounds such as chromium, magnesium, vanadium, Vitamin C, Vitamin E, levothyroxine sodium, and thiazolidinedione have been suggested as potential aids, but there is no evidence to support their effectiveness.



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Michele L. Frazer, D.V.M., is a board-certified internal medicine specialist at Hagyard Equine Medical Institute. She works with many breeds and types of horses, including broodmares exhibiting signs of Equine Metabolic Syndrome.

Frazer graduated from the Auburn College of Veterinary Medicine in 1995 before completing her residency in internal medicine at Hagyard and obtaining internal medicine certification in 1999.

Before returning to Hagyard in 2004, she worked at Keeneland Race Course, taught at Kansas State Veterinary College, and had a solo ambulatory practice in the Lexington area.

Frazer recently became certified in veterinary acupuncture and is a frequent contributor to veterinary literature.

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