Weighty Issues

Being fat increases a horse's risk for several life-threatening obesity-related complications; fight the flab with strategic dietary changes and exercise

BY PAT RAIA

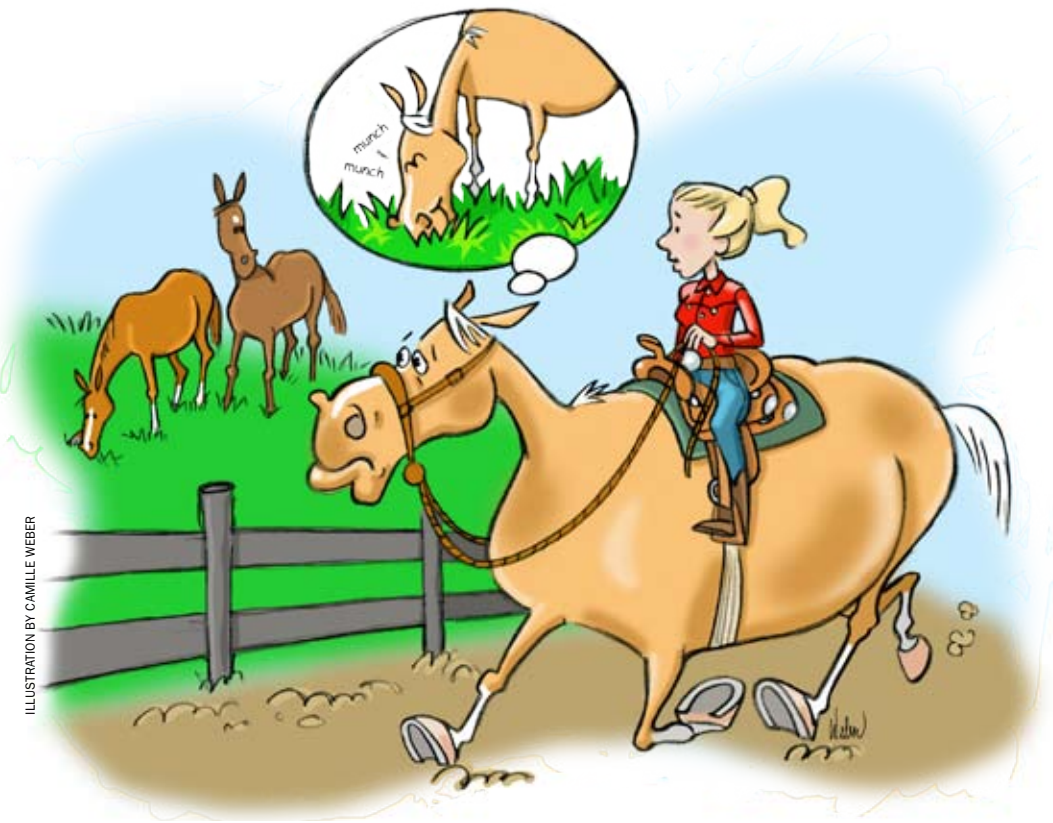


ILLUSTRATION BY CAMILLE WEBER

While a dozen horses pass the afternoon grazing outdoors, Rose is being readied for a workout. But the normally cooperative Quarter Horse is fussy, and she's calling to the pasturemates she can see through an opening in the barn door.

"She's on a diet," says Rose's owner, Kari Sullivan, "and she's not happy about it."

For Rose, "dieting" means spending more time in a stall than outdoors picking sweet pasture grass. It also means Sullivan is boosting her activity to include daily workouts beyond her regular schedule as the stable's school horse.

In old-school terms, Rose is an easy keeper: It doesn't take much in the way of feed to keep her in good flesh all winter long. But after few days munching on springtime's high-calorie pasture grass, Rose begins to pack on pounds and becomes vulnerable to a number of life-threatening obesity-related complications.

According to Nicholas Frank, DVM, PhD, Dipl. ACVIM, associate professor and large animal section chief in the Department of Large Animal Clinical Sciences at the University of Tennessee's College of Veterinary Medicine, equine obesity sets the stage for equine metabolic syndrome (EMS), a condition that causes laminitis in some horses.

"EMS has three key factors: obesity or fat in the neck and fat pads near the tailhead, insulin resistance, and laminitis," he says.

Laminitis is a condition that causes lameness when the laminae, which bond a horse's hoof wall to the bone inside the hoof, break down. So-called pasture laminitis occurs when at-risk horses ingest excessive amounts of concentrated carbohydrates, such as those contained in pasture grass.

A horse becomes insulin-resistant when he's unable to process glucose at the cellular level.

Metabolically efficient horses—those that require fewer calories to maintain body condition, such as ponies, Paso

Finos, and Morgans—are deemed at higher risk for EMS, Frank says. But all horses are at risk when they become overweight.

"There is no difference between a fat horse and an obese horse," Frank states. "But it's at the point that horses become insulin-resistant or have laminitis that, looking back, owners could have prevented the problems earlier."

That means changing your horse's diet as soon as he shows significant weight gain.

Feeding Fat Horses

Generally, horses should eat between 2% and 3.5% of their body weight in dry matter (such as hay and pasture grass) daily, according to Carey Williams, PhD, equine extension specialist and associate director of the Rutgers University Equine Science Center. Fat horses are probably consuming three times more than that; and even more if their owners are feeding them grain.

"People feed grain, and their horses just don't need it," she states. "They get everything, including most of the vitamins and minerals they need, from good-quality forage—green pasture and quality hay."

When horses are obese, it's critical to not only eliminate grain from their diets, but to control the amount calories they consume while grazing.

To do that in the spring, Williams recommends turning horses out during early morning hours before heat from sunlight has a chance to increase grass' carbohydrate content.

"Horses that need to lose weight should graze from 2-3 a.m. to 10-11 a.m. because the sugar content of pasture grass is at its highest peak from about noon to 6 p.m. in the spring," Williams says. "In fall it's just the opposite. Pasture grass has its highest carbohydrate content in the morning. Horses in need of weight loss should graze in the afternoon."

Horses that must be turned out on rich grass should wear grazing muzzles.

"The muzzles reduce horses' grass intake by about one-third," Williams says.

Owners can also cut calories from their horse's diet by offering lower-quality mature hay on a free-choice basis, says Sarah Ralston, VMD, PhD, Dipl. ACVN, associate professor at Rutgers University's School of Environmental and Biological Sciences' Department of Animal Sciences.

"Lower-quality hay provides low-calorie forage," she states. "It has lots of fiber and will keep them eating longer."

If uncontrolled grazing is to blame for weight gain in pastured obesity-prone horses, stalled horses get plenty of help packing on pounds from their well-intentioned owners. That's because many

KEEPING SCORE

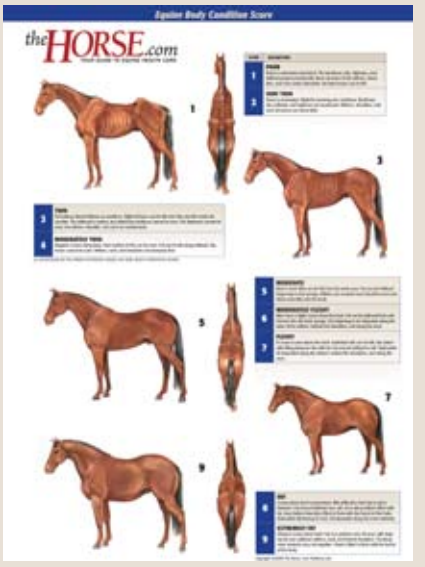
Equine nutritionist Carey Williams, PhD, equine extension specialist and associate director of the Rutgers University Equine Science Center, can almost predict what she'll find when clients call her for advice on caring for their overweight horses.

"They'll tell me the horse is 150 pounds overweight, but when I look at the horse, it's probably 200 or 250 pounds overweight," she says. "People tend to underestimate."

That's generally because many owners are unfamiliar with a valuable tool for determining whether their horses are fit or fat.

"Owners need to learn to body (condition) score their horses according to the Henneke Scale," Williams says.

Developed in 1983 by Don R. Henneke, PhD, the Henneke Body Condition Scale incorporates indicators owners can see and feel to determine a horse's body condition. The scale specifically assesses the amount of body fat visible and palpable on a horse's neck, withers, shoulders, ribs, loin, and tailhead.



Download our Body Condition Score poster at TheHorse.com/7317.

The system scores equine body condition on a scale of 1 through 9. Each numeral corresponds to body condition indicators owners can see.

According to the Henneke Scale, a horse with a body condition score of 1 is emaciated. Bone structure on his withers, shoulders, and neck is visible. Body fat is either very poor or nonexistent.

By contrast, a horse with a body condition score of 9 is considered extremely fat. This horse displays a well-defined crease down his back with patchy fat over his ribs and bulging fat at the tailhead, withers, neck, and behind his shoulders. Fat along his inner buttocks is excessive, and his flanks are filled in flush.

According to Williams, veterinarians and equine nutritionists recommend average healthy horses maintain a midrange score of 5 (moderate flesh) or 6 (moderate to fleshy) on the Henneke Scale.

Horses scoring 6 on the scale exhibit a slight crease down the back; the beginnings of fat deposits at the withers, neck, and behind the shoulders; spongy fat at the ribs; and soft fat deposits at the tailhead.

Those scoring 5 on the scale have level backs, rounded withers, and some spongy fat at the tailhead. Their shoulders and neck blend smoothly into their bodies, and their ribs are not visible, but it's easy to feel them.

In reality, most horses score well above the recommended levels.

"Any body condition over a 6 is considered fat," Williams says. "Most horses are actually an 8 (fat) according to the scale."

Although the Henneke guidelines seem straightforward, many horse owners don't know how to apply them correctly. Most rely on visual cues to determine horses' body condition. But assessing equine body condition is a hands-on process, Williams says.

"Getting your hands on the horse is key to body scoring," she states. "If you can't see the ribs, you should be able to feel the ribs by rubbing your hands along the horse's side with light pressure. The harder you have to push into the horse to feel the ribs, the higher the body score."

It takes some experience to apply Henneke body condition score guidelines correctly, Williams says. Veterinarians and equine nutritionists can demonstrate the technique. After that, owners should evaluate their own horses on a regular basis.

"Using the scale correctly takes some practice, but it's the best way to determine whether a horse is crossing into that fat category or not," she says.—*Pat Raia*

MAMEFRAME PHOTO/MAUREEN BLANEY FLIETNER

Using a muzzle on your obese horse will reduce his grass intake by about one-third.

SUSAN KORDISH

Putting your horse on a drylot, with access to free-choice hay, is one way to allow him to be outside without the worries of him consuming grass with a high sugar content.

owners believe daily grain rations are necessary to keep horses fit and full.

Most horses that spend more time in the barn than in the pasture don't require grain to thrive.

"These horses should have access to free-choice hay," recommends Williams. "Let them eat as much as they want 24/7, and provide a salt or mineral block. If you need a carrier for joint support or other supplements, mix it with beet pulp instead of grain."

Still, it's difficult to convince owners that a grain-scant diet is best for their horses, says Frank, noting, "People feel a horse getting hay is getting an unexciting diet. Feeding grain makes the owner feel better."

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>
> DR. CAREY WILLIAMS

To satisfy their own need to feed grain, many owners substitute so-called lower calorie, "light" commercial feeds for traditional corn and sweet feeds.

Ralston warns against that practice.

"They really are not low-calorie," she states. "They still contribute significant carbohydrates to horses' diets. Total mixed ration products are a better alternative."

Composed of processed forages, vitamins/minerals, and sometimes grain, all bound together with soybean oil, total mixed rations (TMR) are low in calories, high in fiber, and contain minerals horses would otherwise get from pasture grasses, high-quality hay, and grains. The products are available in both pellet and cube forms. Ralston prefers cubes because horses tend to eat them more slowly.

"In our studies, the pellets were gone in 30 minutes or less, but horses were still munching on the cubes 30

DUSTY PERIN

Horse owners can use a weight tape to monitor their horses' weight-loss progress.

minutes later," Ralston says.

On average, healthy horses consuming a high-fiber, low-carbohydrate diet should lose about 50 pounds each month. Each 50 pounds reduces body condition by one score.

Owners should use a weight tape to monitor progress. Horses that fail to achieve desired weight loss need less pasture time, more hay, and more exercise.

While it's taken some time for the idea to catch on, "people are beginning to realize that if they have a fat horse, they could be killing it with kindness," Williams says.

But convincing owners that their best intentions jeopardize horses' health is not easy, states Frank. Especially when they believe the opposite is true.

"Often an overweight horse is what people consider to be a happy horse," he says.

"People have ideas about what a healthy horse should look like," and this varies from breed to breed, Frank says. "For example, people expect a Thoroughbred to be lean. But when it comes to a Quarter Horse, people want to see it high on the body condition scale."

Ultimately, Frank's message about obesity and its effect on equine health is simple: "There is no advantage to having your horse become obese; so let's not do it."

Take-Home Message

Equine obesity increases a horse's risk for equine metabolic syndrome, laminitis, and insulin resistance. Owners can bring horses back to healthy body condition by replacing grain rations with a fiber-rich, low-carbohydrate diet, while increasing exercise to include daily workouts.

ABOUT THE AUTHOR

Pat Raia *is a professional journalist who has covered horse industry and equestrian topics for a number of publications. Her background includes riding, showing, and training Saddlebred horses.*

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