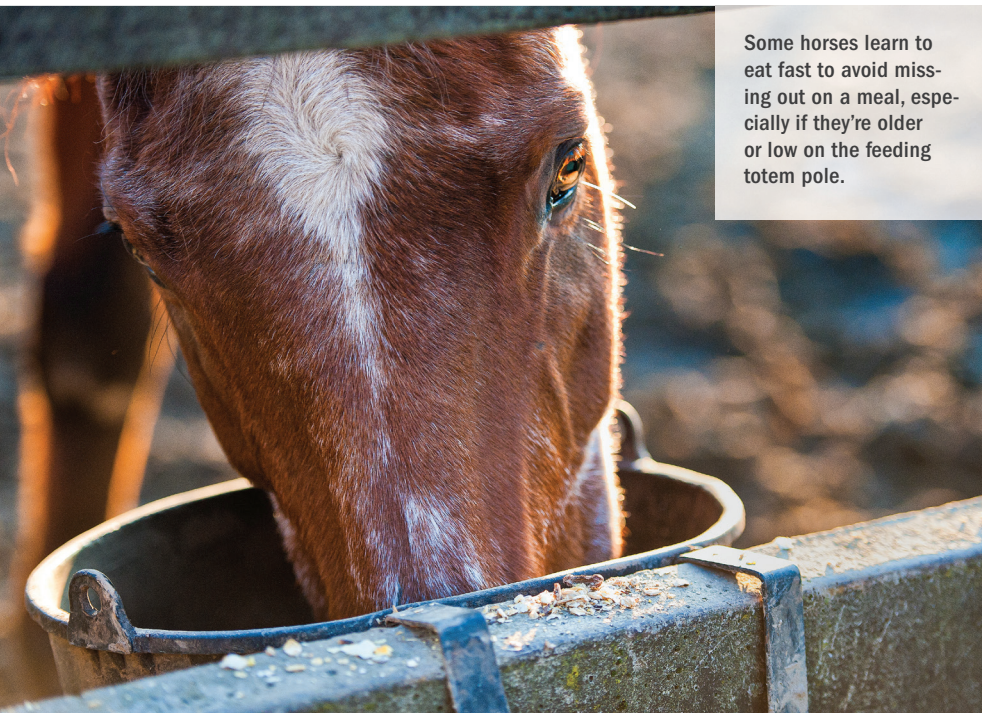


Putting the Brakes on Bolting

Slowing your speedy eater down at mealtime can help prevent issues such as choke and wasted feed



Some horses learn to eat fast to avoid missing out on a meal, especially if they're older or low on the feeding totem pole.

PAULA DA SILVA

Carey A. Williams, MS, PhD, equates horses bolting feed to how some people approach holiday meals: “The horse thinks they’re so hungry, like someone who saves up for a Thanksgiving dinner,” says the extension specialist and professor in the Department of Animal Sciences at Rutgers University, in New Brunswick, New Jersey. “They don’t eat all day, and then the feast is laid out, and they scarf it down. Horses learn the behavior if they are around other horses that do it, too, or even when they’re younger. Maybe they learn from their mothers.”

Horses naturally compete for food in a pastured herd, moving from pile to pile of forage. Some horses learn to eat fast to avoid missing out on a meal, especially if they’re older or lower in the herd hierarchy. Further, forage restriction can cause a horse to go into survival mode,

increasing their rate of consumption. Feed-bolting behavior learned in the field occasionally transfers to the stall, even without competition for food.

Feeding management typically influences the likelihood of bolting behavior occurring, says Shannon E. Pratt-Phillips, PhD, professor of equine nutrition and physiology in North Carolina State University’s Department of Animal Science, in Raleigh.

“There are some types of horses that seem greedier than others,” she says. “For example, some ponies will eat whatever they can get as quickly as possible. Horses (and ponies) are managed differently. Some might not necessarily be fed every day or at the same time or are periodically given an extra grain meal. That situation can trigger horses to be overly excited about eating their food. Horses

that have been in a situation where they haven’t had any food for a while, if they’ve been neglected, I could see them trying to eat very quickly, which poses even greater challenges for those types of horses.”

Consequences of Bolting Feed

Horses prone to devouring feed before it is thoroughly chewed and moistened by saliva can cause a host of problems both for themselves and their owners. Wasted feed, reduced nutrient absorption in the horse’s digestive system, and potentially life-threatening choke episodes are reasons to slow mealtime for anxious horses.

Choke occurs when a wad of partially chewed food becomes lodged in the esophagus, obstructing it. The esophageal muscles contract and lock the food in place. While a horse continues to breathe through his nose during a choke episode, he can aspirate food particles into the trachea, potentially resulting in pneumonia.

Clinical signs of esophageal obstruction brought on by bolting feed include gurgling, coughing, spitting, saliva leaking from the nostrils, and shaking the head or stretching the neck in an attempt to dislodge the obstruction.

Significant changes to senior horses’ dentition, such as missing teeth, difficulty chewing, or mouth pain, can cause them to bolt and/or choke on their feed.

“Chewing is a big issue for a horse with dental problems,” says Williams. “These horses might not be drinking as much, either (due to tooth sensitivity, particularly if the water is cold). The combination of them not drinking and not chewing as efficiently adds to the issue. If they have choked in the past, it can become a more common occurrence. Once a horse has choked, scar tissue can form in the esophagus, restricting the esophagus a little bit and causing the horse to choke again.”

She says a stressful feeding time brought on by meal competition, a horse's pecking order in the herd, weather, feed palatability, or lack of exercise can also cause oxidative stress. This damage to muscular, nerve, or immune cells can lead to upper respiratory infection or illness.

Convenience vs. Nature

Pastured horses forage an average of 16 hours per day. While a continuous supply of food suits the design of a horse's digestive system, Oklahoma State University Animal and Food Sciences associate professor and extension specialist Kris Hiney, PhD, suggests that expediency undermines physiology.

"What we do for convenience to get nutrients into horses with higher energy demands is contrary to what their digestive physiology and mental physiology are set up to do," she says. "A horse is a grazing animal, but we feed them more like predators that have to consume everything they have at one time because there's no guarantee when the next meal is coming. We have a lot of horses that are stalled and, so, while in an ideal world they could be outside all the time, we have to do the best we can to try to match management with their natural behavior and their natural function."

Preventing your horse from bolting feed begins with assessing your feeding system. In many barns grain comes



COURTESY E. FEENEY, RUTGERS UNIVERSITY

An age-old method for controlling a horse's mealtime enthusiasm is placing rocks in the bottom of the feed bucket.

before forage, but simply reversing the order of a horse's feed intake can offer significant benefits, says Pratt-Phillips.

"If you think about how a horse in the wild would spend their day, they spend 70% of their time eating," she says.

"Horses confined to a stall don't have food in front of them all the time and can become more fixated on mealtime. If you feed the hay before the grain, they've already eaten something, and they might not be as anxious or hungry to eat

quickly. Of course, the horse always has hay in front of them in my perfect world, so they're never without food. Ideally, you fed them enough hay overnight that they'd still be nibbling the whole way through to morning. And then you're just topping them up with grain instead of suddenly feeding them."

Hiney concurs, noting the way you feed your horse can deter bolting. "We do a lot of things based on convenience or habit," she says. "If you want to switch



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systems, feed forage ... then feed grain. We can make small changes in chores that make more sense from the horse's physiological perspective."

Long-stem forage increases the number of bites a horse takes and slows the digesta's passage rate through his gastrointestinal tract. Hay consumption also prolongs chewing time, increases salivation integral to stimulating water intake, and buffers acid in the stomach.

"Hay takes a lot more time to chew," says Williams. "I feel hay is also harder to bolt, so it would be better to feed it first. Then after you feed hay, you can start dumping grain, which should help slow them down. Of course, there are always exceptions to this rule. If you have one of these, other techniques might be in order."

Slowing Down the Feed Train

Ask a horse owner how to crack a horse's feed-bolting habit, and innumerable answers surface, ranging from soaking grain and forage to hiding rocks

in the feed bucket. Indeed, there are ways to solve this problem beyond feeding hay first.

Offering hay in slow-feed nets with small openings no larger than 3.2 centimeters (1.25 inches) requires a horse to take smaller mouthfuls.

Instead of giving a horse grain in the morning and evening, split the two large meals into four or five smaller ones. Smaller meals are not only better for a horse's digestive system but also can cause the excitement over a bucket of grain to lose its novelty.

Soaking hay cubes, grain pellets, and beet pulp with enough water to create a slurry can force the horse to ingest less food at a time, allowing the mixture to slide down the esophagus smoothly.

To curtail aggressive food behavior in the pasture or the stall, give the bullied horse a timeout from competition. Protect his private space by feeding him separately from the herd. Consider mounting a privacy screen between stalls

if a horse's neighbor threatens to disrupt what should be a peaceful meal.

When these practical approaches fail, a dose of ingenuity might be in order. For example, mimic a pasture experience in a stall using multiple shallow buckets of grain spread throughout a horse's space, compelling him to move around in search of food. Feed meals in specialized tubs with waffle-shaped plates or individual cups that force a horse to take his time.

Pratt-Phillips and her research team fashioned their slow feeder using 3-to-4-inch-diameter PVC piping to create a hashtag-type structure in the bottom of the feed tub. "It was quite easy for us to cut the PVC pipe lengthwise and then glue them crisscrossed to the bottom of the tub, which was an effective way to slow a horse eating," she says.

You can also give placing rocks in the bottom of a bucket—an age-old method to control a horse's feed enthusiasm—a makeover. Pratt-Phillips says bocce balls serve as a uniform substitute.

Ideally, a slow feeder simulates grazing behavior. "Many of the newer slow hay feeders are meant to be on the ground, which is better for a horse's natural grazing position and teeth grinding," says Williams. "Say you feed your horse in the morning and have to go to work before feeding again at night. A lot of horses eat their hay in two to three hours. Some hay bins have a screen that locks into position over the top. The horse eats the hay through holes on the screen. The screen pushes the hay down to the bottom. The method takes a horse longer to eat because the screen prevents it from taking huge mouthfuls."

Disadvantages of slow feeders vary. A horse can snag a hoof in the netting if haynets are hung too low. Metal-faced hay boxes risk damaging teeth. Whether using a net or a box, in the beginning horses might exhibit frustration extracting hay in smaller bites. Over time, habit and comfort develop, however, and soon your horse should be enjoying his forage meal.

Take-Home Message

Addressing feed-bolting habits successfully takes time. A consistent routine is central to keeping your horse well-fed and content. Homegrown solutions or commercial products can alleviate a horse's desire to bolt grain or hay. 🐾

Slow
FEEDING

- in the stall
- at the hitching post
- in the paddock
- at the trailer
- in the dry lot

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