

## Easy Keepers: Managing Horses Prone to Obesity

*C.A. Shea Porr, Agriculture and Natural Resources Extension Agent, Equine, Loudoun County and Kathleen Crandell, Superintendent of Middleburg Agricultural Research and Extension Center*

“Easy Keepers” are horses that will maintain or even gain weight under conditions where other horses will lose weight. They are often considered a pleasure to own because they need less feed to maintain an appropriate body condition; however, these horses can easily become obese, which leads to other potentially life-threatening conditions. The challenge becomes meeting their nutritional needs in protein, vitamins, and minerals, without over-feeding calories.

### Summary Tips on Managing the Easy Keeper

- Start or increase the level of exercise. Begin slowly and work up to longer or more intensive activities.
- Get rid of high calorie concentrates. Easy keepers do not need the extra energy.
- Get rid of high fat supplements. Again, easy keepers do not need the extra calories.
- Feed grass forages and hay rather than legumes. This will decrease the caloric intake.
- Limit access to pasture to less than 4 hours a day. Use a grazing muzzle if a drylot is not available.
- Limit the amount of hay fed to 1-1.5% of the target body weight. Divide this amount into several feedings a day in order to extend the amount of time the horse spends eating.
- Make sure the horse has access to salt (straight salt or a trace-mineral salt) and clean water.

## Causes of Obesity

Horses evolved grazing forages like those in our pastures today, right? Wrong. Forages in our pastures today are much higher in calorie content than the types of grasses that horses evolved on. They grazed on moderate to poor quality forages, often covering several miles a day to find feed in sparsely vegetated areas. Modern management practices have placed horses in unnatural confinement situations that restrict grazing activity within the limits of pasture fences while providing easy to find, high quality forages. The ultimate confinement with limited access to forage is represented by horses that are stall-kept with limited turnout. These horses do not have to travel at all to find forage, and thus are not expend any calories looking for food. Despite this, many people still believe that horses need concentrates as part of the diet. Combined with decreased exercise, this creates an equine lifestyle that results in weight gain and obesity. Interestingly, a recent survey done in Virginia found that many obese horses are getting very little or no concentrate and still battle weight issues, adding emphasis to the lack of exercise as a contributor to obesity.

The basic cause of obesity is consuming more calories than are expended, usually from a combination of too much or the wrong type of feed combined with a lack of exercise. Traditionally, working horses needed more calories than they could get from forage alone, and they were fed grain to make up the deficit. Today, most horses are no longer used for work; many are kept as pleasure and recreational trail horses. Their calorie expenditure is very low when compared with horses in the past.

### **Effects of Obesity**

Sometimes owners think that “a little extra weight” on a horse isn’t a bad thing. What one person considers obese another might call a little plump. The difficulty lies in defining what “a little” means and whether or not that’s actually healthy for the animal. While some body fat is essential, excess reduces a horse’s capacity for exercise. The extra weight requires more exertion to move and added fat layers insulate the body, reducing the horse’s ability to dissipate heat which can lead to heat stress. The extra weight may also predispose an animal to musculoskeletal injuries or exacerbate arthritis, resulting in decreased performance.

Another health concern for obese horses includes the formation of lipomas: fatty tumors that can form in the abdominal cavity of obese horses. These tumors are often suspended from the tissue (mesentery) that supports the intestines and hang in such a way as to increase the chances of strangulation colic. This is a surgical situation that happens when the stalk of the lipoma wraps around intestinal tissue and deprives the gut tissue of blood. Lipomas appear to be more prevalent in older horses (over 15 years of age).

Additionally, obese horses are more prone to laminitis and founder, most likely due to abnormal glucose metabolism. Overweight animals can become resistant to the actions of insulin, resulting in higher levels of insulin being secreted when the horse eats a meal. These high levels of insulin may lead to increased incidents of laminitis and founder. The added weight of the horse may also make the rotation of the coffin bone worse than what would result in a horse of an appropriate body weight.

### **Monitoring for Obesity**

Weight gain usually occurs slowly, and without an appropriate monitoring system your horse may become obese before you realize there is a problem. While most people don’t have access to a livestock scale, there are other ways to assess your horse’s level of obesity. Weight tapes, available at most feed and tack stores, are useful for generating an approximate bodyweight and are very good at helping you monitor changes. Using the tape accurately and consistently will allow you to track increases or decreases in your horse’s weight and give you time to adjust feed intake and exercise accordingly.

The other method easily used is body condition scoring. The most commonly used system assesses fat deposition on six areas on the horse’s body: neck, withers, behind the shoulder, over the ribs, topline, and tailhead. Each area is ranked on a scale of 1-9, where a 1 is a thin, emaciated horse, and a 9 is an overweight, heavily obese horse. A score of 5 is considered moderate, and a range of 4 to 6 is acceptable for most horses. These scores are averaged to generate an overall body condition score.

Again, this system can be used to subjectively evaluate a horse on a regular basis and can help track changes in body weight and condition over time. Taking pictures of your horse at the same time you score them can also be helpful in monitoring changes in weight and condition.

## **Reducing Obesity**

Obese horses will only lose weight if their energy expenditure is greater than their intake. This can happen by increasing exercise and/or decreasing calorie intake. However, caution must be used. An unfit, obese horse can be easily and quickly overstressed by too much exercise and proper nutrition must be maintained to prevent nutritional deficiencies.

Sometimes turning out the confined horse will allow a greater level of exercise, but many horses will simply stand around waiting for something to eat. Forced exercise is often required. Lunging or encouraging the horse to run around a safely fenced paddock or round pen for 10-15 minutes several times a day will help them lose weight. Riding or driving will accomplish the task faster. If your schedule does not allow you time to do this, consider leasing your horse to someone who will have the time to exercise them. A slow increase the horse's exercise level will avoid causing metabolic problems associated with exhaustion or heat stress. Begin by doing short sessions (20-30 minutes) of walking and trotting a few days a week. Exercising for longer periods of time at a walk or trot will burn more calories than cantering or galloping. Gradually increase the amount of time and the frequency of exercise until the horse is working out at least 3-4 hours each week. Although tempting, be sure not to increase their feed!

Restricting access to pasture will often help decrease the horse's calorie intake. Limiting turnout time to a few hours (approximately 4 hours a day) will accomplish this, but turning them out "during the day" or "only at night" will not. Unless the amount of time on grass is severely limited horses will eat the same or more than horses left out 24 hours a day. If there is no drylot (area with no grass) to turn the horse out in, then a grazing muzzle should be used. Be sure to use one that allows the horse to drink but limits access to grass.

Pastures tend to be higher in energy than hay, and grasses tend to be lower in calories than legumes (such as alfalfa). Feed at least 1.5% of the horse's *target weight* in good quality grass hay each day while limiting pasture access. This means if the horse should weigh 1000 lbs, at least 15 lbs of hay should be fed per day. The restricted amount of hay will usually be consumed in a few hours if fed all at once; therefore, dividing the hay into three or four feedings a day will reduce the amount of time the horse spends without feed. This will help maintain proper gut function, reduce the incidence of gastric ulcers, and keep them from getting bored and chewing down the barn.

Since concentrates are often unnecessary, consider eliminating, decreasing, or changing the horse's grain. If the hay is poor quality and you're concerned about overall nutrition, consider offering a ration balancer. Ration balancers are designed to be fed in small amounts and are low calorie, yet they contain the appropriate protein, vitamins, and minerals to balance a horse's diet. High fiber feeds or feeds that are lower in calories (light feeds) can also be used. Some of the "low carb" or "low NSC"

(non-structural carbohydrates) feeds are suitable as long as the fat level is below 6%. Avoid feeding high fat concentrates or supplements, as these add concentrated calories to the diet.

Salt and water should be freely available for horses at all times.

### **Maintaining the Easy Keeper**

The diet utilized for losing weight will not be the same as the one used for maintaining weight. Once the horse has lost the appropriate amount of weight, slowly increase the amount of grass hay fed or increase access to pasture until the horse can maintain the target weight. Grazing muzzles or limited turnout may still be required, particularly during times when pasture forages are lush (spring and fall). Keep up the exercise and monitor the horse's weight regularly to maintain a trimmer, healthier animal.

Visit [www.ext.vt.edu](http://www.ext.vt.edu) or your local county Extension Office for more information.

We would like to thank our reviewers for their assistance with this bulletin.

- Celeste Crisman, Extension Equine Specialist, Youth, Department of Animal and Poultry Sciences, Virginia Tech
- Scott Pleasant, Veterinary Extension Specialist, Department of Large Animal Clinical Sciences, Virginia Tech
- Crystal Smith, Agriculture and Natural Resources Extension Agent, Warren County
- Carrie Swanson, Agriculture and Natural Resources Extension Agent, Albemarle County