“My horse is fat, but so what? It’s just more to love, right?” Well, not exactly. Excess weight may cause or predispose the horse to problems (e.g., joint pain, laminitis, insulin resistance, etc.) or may be the sign of an existing metabolic disorder. Nutritional management of the overweight (or easy keeping) horse is not as simple as some may think. Careful attention is needed to keep these horses in good health.

At what weight is a horse overweight?
Assigning a specific weight to define obesity in horses is impossible due to differing bone structure and muscling. Instead, evaluating fat deposition over the horse’s body is a better method to estimate body condition. A few different scoring systems have been developed that apply a numerical score to the horse’s condition based on fat coverage over target areas of the body. While these scoring systems are subjective, they do provide a systematic method of evaluating body condition. One of the most widely accepted scoring systems is the 1 to 9 Henneke scale (Equine Vet J., 1983), where 1 is extremely emaciated and 9 is very obese. Horses scoring above a 7 on this scale are considered overweight. (See pages 2 and 3 for an adaptation of the Henneke and co-workers scale).

Why is the horse overweight?
Once the horse has been recognized as overweight, the objective becomes weight reduction. To achieve this objective, determining why the horse is overweight can be helpful. Sometimes the answer is as simple as the horse is receiving feed (grain) when little or no feed is required. Reducing or eliminating the feed may achieve the desired weight loss. This is a relatively uncomplicated solution to the obesity question. Unfortunately, the answer is often much more complicated. Metabolic disorders, such as Cushing’s disease, insulin resistance (IR) and equine metabolic syndrome (EMS), may predispose the horse to obesity. In such cases, getting proper veterinary care and medications may alleviate the problem. Even still, some horses carry extra weight simply because they are very efficient at converting dietary energy (calories) to fat. Regardless of the cause, obese horses require careful nutritional management.
Nutritional management of obese horses

Horses should be fed to achieve the desired body condition. This means adjusting feed according to body condition and season. Many nutrients are blamed for causing obesity, but energy imbalance is the true culprit. (Excessive dietary energy/calories will result in weight gain; not protein per se, vitamins or minerals.) One of the primary keys to achieving the desired body condition is to balance the amount of calories consumed with the amount of calories used. The horse uses calories for all of life’s functions, including breathing, grazing, processing food, reproduction, maintaining body temperature, exercising, etc. Caloric expenditure changes with age, climate and activity level. As a result, the caloric input will likely need to change throughout the year to maintain a healthy body condition.

Many horses begin carrying too much weight in the spring because feed is not reduced after winter. Horses usually require less feed in the spring because pastures are often lush and calorie-rich. Additionally, warmer spring temperatures mean the horse uses fewer calories (less energy) to maintain body temperature. In such cases, reducing or eliminating feed will generally help with weight reduction. Care should be taken that enough feed is provided such that all vitamin and mineral requirements are met. Even though some horses may be consuming lush pastures rich in calories and protein, these pastures are often deficient in many trace minerals. A typical trace mineral salt block will not meet the horse’s mineral requirements. Read the feed tag/bag or consult with the manufacturer to determine the minimum amount of feed needed per day to satisfy nutrient requirements. If the amount of feed provided is below the minimum requirement, then supplemental vitamins and minerals will be needed. In such cases, vitamin and mineral supplements should be fed daily rather than fed free-choice.

When reducing or eliminating feed does not accomplish the desired weight loss, grazing on lush pastures should also be limited. This may be accomplished by splitting time between pasture and stall, using a grazing muzzle or placing the horse in a dry lot and feeding hay.

When feeding hay to overweight horses, choose grass hay. The digestible calorie content is often (but not always) lower in grass hay than legume or mixed hay. Regardless of the type of hay (legume or grass), the more mature the hay at harvesting, the lower the digestible calories. Additionally, the sugar and starch content also tends to decrease with increasing maturity. Many metabolic disorders require avoidance of sugars and starches (e.g., laminitis, insulin resistance, polysaccharide storage myopathy). Thus, mature grass hay would be the best choice for reducing calorie intake. As always, the hay should be free of dust, mold and other contaminants.

Horses on a hay-only diet (with a vitamin and mineral supplement) should receive a minimum of approximately 1.5 to 2% of their body weight per day (e.g., 1000 pound horse should receive 15 to 20 pounds of hay per day). Feeding hay at this rate is essential to maintain normal, healthy gut function and to avoid development of vices (e.g., wood chewing). The horse’s body may go into “conservation mode” if fed below 1.5% of body weight, meaning the horse will expend less energy (i.e., become less active) and weight loss will be less.

Whenever feasible, increased exercise should be incorporated in a weight reduction program. This will help to increase caloric output, thus reducing body fat. Use caution should the horse have any condition that may be exacerbated by exercise (e.g., laminitis).

Summary

Overweight horses have special nutritional concerns. Regardless of the reason the horse is overweight, reducing caloric intake and/or increasing caloric output is crucial to weight reduction. Because increasing exercise is typically more difficult to manage, reducing dietary calories is usually the most practical weight loss method for horses. While calorie restriction is important, the other essential nutrients (e.g., protein, vitamins and minerals) cannot be ignored. For optimal health, the goal is to achieve and maintain the ideal body condition throughout the year.

Body Condition Scoring

Following is an adaptation of the widely accepted scoring system (Henneke, 1983) for evaluating body condition. While the photographs on page 3 represent each Body Condition Score, the evaluations are subjective; therefore, the actual score will be dependent upon the evaluator.

Target Areas for Body Evaluation Scoring
# Body Condition Scoring Chart

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Poor</td>
<td>Animal extremely emaciated. No fatty tissue can be felt. Ribs projecting prominently. Bone structure easily noticeable. Tailhead and hook bones projecting prominently.</td>
</tr>
<tr>
<td>3 - Thin</td>
<td>Slight fat cover over ribs. Ribs easily discernible. Neck and withers accentuated. Tailhead prominent, but individual vertebrae cannot be visually identified. Hook bones are rounded, but easily discernible. Pin bones not distinguishable. Shoulder accentuated.</td>
</tr>
<tr>
<td>4 - Moderately Thin</td>
<td>Faint outline of ribs. Negative crease along back (backbone sticks up). Neck, shoulder and withers not obviously thin.</td>
</tr>
<tr>
<td>5 - Moderate</td>
<td>Ribs cannot be seen, but are easily felt. Fat around tailhead beginning to feel spongy. Back is level. Shoulder blends smoothly into body. Withers rounded.</td>
</tr>
<tr>
<td>6 - Moderately Fleshy</td>
<td>Fat beginning to be deposited. Fat over ribs and tailhead feels spongy. Back may have slight positive crease (gutter appearance). Shoulder blends smoothly into body. Withers rounded.</td>
</tr>
<tr>
<td>7 - Fleshy</td>
<td>Individual ribs can be felt, but noticeable filling with fat between ribs. Back has positive crease (gutter appearance). Fat deposited along neck, withers, tailhead and area behind shoulder.</td>
</tr>
<tr>
<td>8 - Fat</td>
<td>Fat deposited along inner buttocks. Difficult to feel ribs. Thickened neck. Fat deposited at withers, tailhead and area behind shoulders. Positive crease (gutter appearance) down back.</td>
</tr>
<tr>
<td>9 - Extremely Fat</td>
<td>Bulging fat. Patchy fat appearing over ribs. Obvious positive crease (gutter appearance) down back. Fat along inner buttocks may rub together. Flank filled in flush.</td>
</tr>
</tbody>
</table>

Meet Karen and Laura Diller

Karen Diller has been riding horses for most of her life, and she has passed on her love for horses to her daughter, Laura. Now fourteen years old, Laura has been riding since the age of five. Two years ago, Karen and Laura built their present day barn in Chambersburg, Pennsylvania. Having a barn has been a dream for both, and together they accomplished their goal. Presently, mother and daughter work together to care for the horses and the barn. Their time spent together has built a strong relationship between them.

Currently Karen and Laura own two horses, Sarabi and Serendipity (Sera). Not to be forgotten are the two miniature horses that arrived on Christmas day six years ago as Laura’s gift. Laura’s horse, Sera, is a 9-year-old quarter horse/warmblood cross that is used as a hunter. Sera has many wonderful attributes, including being an easy keeper—too easy in fact. To address this problem, Sera has been feeding M-30 for four months. Laura is extremely pleased with the result as she has noticed that Sera has lost weight and her hair coat has improved.

The two minis, Button and Star, are also eating M-30. Star has shown the most dramatic improvement in weight loss, which is a big relief for the Dillers since minis are prone to foundering. In addition, their hair coats have improved significantly. The only complaint that the minis have now is their owner’s insistence that they wear grazing muzzles when turned out on the lush pasture.

Both Karen and Laura are delighted with the progress they have observed in the short four months that their equine friends have been eating M-30. Good luck to the Dillers and all their four-legged companions in their future endeavors.

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Try these great McCauley products...

M-30® is McCauley’s most comprehensive protein, vitamin and mineral supplement available for horses. M30 is specifically created to satisfy the high nutritional demands of horses at all physiological stages: maintenance, growth, pregnancy, lactation and work. M30 is designed to balance the basic forage diet with or without grain. It is recommended for horses consuming an oats and forage diet, idle or light working mature horses, overweight horses (especially those on a dry lot), horses needing a slower growth rate (due to physitis, orthopedic problems, etc.), or horses on energy restricted diet (due to laminitis, EPM, etc.).

V-MAX® is a complete vitamin and trace mineral supplement. It can be fed to all classes of horses to meet vitamin and trace mineral requirements. V-MAX should be provided when small amounts of feed are fed, when the diet consists of forage alone or with unfortified grains.

You know you're a horse person when...

- Your horse gets shoes more often than you.
- Your husband does something nice for you and you say "good boy" and pat him on the neck.
- You are totally grossed out by human hair in the sink or tub, but don't mind horse hair in your washer, on your clothes, in your food...
- Your non-horsy friend gives you a funny look after glancing into the back seat of your car, and you realize he's noticed your whips and spurs.
- You say "whoo" to the dog.
- You don't even want to think about how your car would be paid for, your mortgage would be much smaller, and you might have some savings if you didn't have horses.
- You see the vet more than you see your child's pediatrician
- You cannot imagine why anyone would think it kinky to own whips.
- You save the hoof shavings for the dog.
- You yell at the kids, and the horse's name pops out.
- When you have more pictures of your horses in your office than you have of your family
- When you known more about equine nutrition than human nutrition.
- You drive by ANY field ANYWHERE and look very hard for your horse, Sera, is a 9-year-old quarter horse/warmblood cross that is used as a hunter. Sera has many wonderful attributes, including being an easy keeper—too easy in fact. To address this problem, Sera has been feeding M-30 for four months. Laura is extremely pleased with the result as she has noticed that Sera has lost weight and her hair coat has improved.

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