



**Much like their human counterparts, many of today's horses are working less and eating more (both in quantity and type of food), and as a result they are becoming fat, as a result obesity is a serious emerging problem in the domestic horse. Obesity involves serious disease implications as well as the more obvious problem of reduced athletic ability.**

### **How do I know if my horse is obese?**

It can be difficult to accept that your horse is too fat. The simplest way to evaluate the condition of your horse is to perform a body score estimation. This is a less objective method than combining an accurate bodyweight with the height of the horse. The former takes no account of the latter but the latter may be more difficult to interpret because some horses are naturally heavy and so breed should also be considered. Currently, there are no defined methods for calculating the "correct weight for a particular horse", so body condition scoring is widely used.

### **Body condition scoring**

Body condition scoring involves the careful examination of a horse in key body regions. Usually a scale of body condition is used. There are several popular methods. This is a pity because a single easily understood method that allowed for subtle variations would help everyone to understand the scale. Currently there are scales that use 1-5, 1-9 and 1-10. Whenever a body condition score is used the relevant scale should be mentioned to avoid any ambiguity.

### **Assessing your horse's body condition**

The covering of the rib cage roughly in the middle of the horse's side is a good first site to assess. If the ribs can only be felt by pressing hard or they cannot be felt at all, your horse is likely to be overweight. The middle of the back is also used and it is best assessed by palpation/feeling. If the spinous processes cannot be felt and if there is a hollow in the midline then your horse is probably overweight. Keep an eye out for fat deposits through the neck and the crest and along the rump and tail-head. Hard lumpy tissue in these areas is especially troublesome and is an indication of obesity as well as an indicator of risk for obesity-associated diseases such as laminitis.

### **Why is it so important that my horse doesn't become obese?**

The importance of obesity lies in the metabolic consequences on the health of your horse. Many grossly overweight horses look very well - the coat is shiny and they are often "winners" in show classes. Of course the former is good but when obesity is a pre-requisite for winning a show class or attracting a good price at a sale then the long-term health of the horse is surely being sacrificed for financial gain.

Obesity has consequences on performance that are usually easily understood - although they are often overlooked. No matter how shiny your horse's coat is, if he is fat, he will perform less well than a fit horse carrying only enough weight to ensure his own health! Overweight horses are less efficient athletes. Often, in a desire to present a full, rounded horse in the show ring, some heavy horse breeds are being overfed to compensate for inadequate conditioning which leads to exercise intolerance and increased stress on soft tissue support structures. Injuries are more common in the short-term and arthritis is often the long-term outcome.

Overweight horses have increased body mass and alterations in blood flow. These factors lead to an increased need for oxygen, especially during exercise, but overweight horses have more difficulty taking in oxygen because their increased body mass restricts chest wall motion. Heart problems can reasonably be expected, although there is no scientific evidence for this as yet.

The increased fat layer also makes thermoregulation more difficult and fat horses are more prone to overheating during hot summer months. Increased heart rate, due to blood flow restrictions, and increased respiratory rate, due to elevated oxygen need, can cause increased levels of blood lactate, which can lead to tying up or exertional myopathy. Additionally, increased fat storage in the liver can decrease this organ's functional ability. Obesity decreases immune system function and can make some horses more susceptible to certain diseases.

Overweight mares are more infertile than mares in good condition. Also, high fat scores have been

## Obesity - the fat horse



associated with increased duration of pregnancy, increased placental weight and decreased milk production. An unfit fat mare is likely to have greater difficulty with foaling than a slimmer fit mare.

Links between obesity (even when this is for a relatively short duration in the life of a horse) and certain metabolic diseases are being investigated worldwide. Scientific studies are beginning to probe fat associated problems in horses but the current thinking is that equine obesity is itself a potential cause or factor in some of the most difficult diseases of horses and that treating obesity may be as important as any other treatments that your vet can offer. The main thrust of the research effort is related to the suggested link between laminitis and obesity. Many owners will recognize that the fat under-exercised pony is a strong candidate for laminitis.

Obesity has also been linked with alteration of the pituitary gland at the base of the brain and the resultant condition known as Peripheral Cushing's Disease or Obesity-related Metabolic Disease. The resultant clinical effects include laminitis that develops in horses that are not necessarily fat or obese at the time. However, previous obesity may be a significant factor.

Although mismanagement is a common cause of obesity, it is not always involved - certain breeds and types have a tendency to become fat during the summer months and these may be much more difficult to manage. Many owners will recognize the "good-doer" - the horse that lays down fat in spite of a very sparse diet but even then suitable dietary changes can be used to provide a diet that is nutritionally sound but restricts the fat deposition.

### What do I need to know?

- Make sure your horse is kept in good condition, ie body score of no more than 5 (out of 9).
- The fittest and strongest athletic horses are NOT overweight - they are muscularly fit and fed according to their weight and specific work needs.
- You need to be aware that even a single episode of obesity may have long-term consequences on your horse, therefore from foal-hood to old age, horses should be regularly weighed and condition scored.
- Exercise programmes are an essential part of horse ownership but reduction of weight by exercise alone is a fruitless task - the amount of exercise needed to "burn-off" a kilogram of fat is enormous and is usually impossible to achieve! It is far better to reduce the intake of calories and increase exercise at the same time.
- It is possible to make an accurate calculation of the nutritional needs of a particular horse based on its "correct" weight and the work it is doing, in this way obesity can be prevented.
- Special diets are increasingly available for obese horses but all weight loss programmes must be slow and must be carefully monitored both by you and your vet.

**If you want any other information on health issues concerning your horse please contact Hampden Veterinary Hospital on 01296 423666 and we will be happy to advise you.**