

## Clinical Spotlight

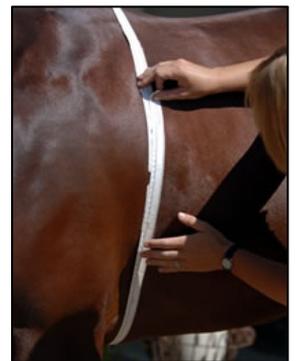
### Equine Obesity – A Real Problem!



Obesity is major problem amongst our equine friends! **Laminitis** is one of the most serious health implications of obesity. Other health implications include **orthopaedic, heart and lung issues and hyperlipaemia** (excess fat in the blood stream). **Domestication** is the main reason equines are getting fat! Horses and ponies have been designed to survive annual fluctuations in weight. Before domestication, they would eat large amounts of forage in the summer when supplies were in abundance and this would be converted into fat for them to store and survive on during the cold winters when

grazing was sparse. The problem with domestication is that humans do not allow equines to get lean in the winter! Instead we continue to feed them and over rug them leading to at times, weight gain during the winter. This self-perpetuating cycle continues. As vets we constantly see cases of Equine Metabolic Syndrome – the culmination of obesity, insulin resistance and increasing circulating cortisol which can trigger bouts of laminitis.

Knowing what the ideal weight for your horse/ pony should be can be challenging. Body weight can be measured via a **weigh bridge, weigh tape** or using a **formula** developed at Texas University. However, accurate measurements do not tell you if that weight is right for that horse. **Body condition scoring** can give you this information and is the advised method for owners to assess their horses body weight.



Body condition scoring involves **looking and feeling** your horse for fat cover. Scoring systems are based on either a 0-5 or a 0-9 system. Many UK systems are based on one produced by Carol and Huntingdon using scores from 0-5 where **0 = emaciated, 5 = obese and 3= generally a healthy weight** (see table 2). The aim should be to have your horse/ pony **at BCS 3 (2.5 for laminitics)**.

#### How to implement weight loss

1. **No grazing!** When horses are at a high-risk weight, access to grass needs to be stopped as the amount ingested cannot be monitored. This is harsh but weight loss is vital.
2. Feed should comprise **hay +/- a low energy chaff**. Low calorie chaff is useful as some hay can have a high energy value. A **vitamin/ mineral supplement or a balancer** must be provided when horses are not grazing/ on a restricted diet.
3. To lose weight, the **total DRY MATTER** intake of all feed should **not exceed 1.5% of the horse's current weight** (see table 1 for feed amounts). This percentage can be reduced if the horse is not losing weight and a percentage of the **TARGET WEIGHT** can be fed instead but it is best to discuss this with your vet so a suitable plan is made. **Soaking hay is ideal** to soak the sugars out, especially in overweight laminitics.
4. **Weigh the feed/ hay accurately!**
5. Horses should be **fed little and often** with the largest amount of food being ed before the longest period without feed e.g. at night.
6. **Monitor** your horses weight loss every couple of weeks so that you can adjust the amount of food being given according to their new weight.

*The feed calculation – done for you!*

Weight of horse	Total daily weight of food in kilograms, by percentage of body weight					
	1.2%	1.3%	1.4%	1.5%	1.7%	2.0%
200kg	2.4	2.6	2.8	3	3.4	4
250kg	3	3.3	3.5	3.8	4.3	5
300kg	3.6	3.9	4.2	4.5	5.1	6
350kg	4.2	4.6	4.9	5.3	6	7
400kg	4.8	5.2	5.6	6	6.8	8
450kg	5.4	5.9	6.3	6.6	7.7	9
500kg	6	6.5	7	7.5	8.5	10
550kg	6.6	7.2	7.7	8.3	9.4	11
600kg	7.2	7.8	8.4	9	10.2	12
650kg	7.8	8.5	9.1	9.6	11.1	13
700kg	8.4	9.1	9.8	10.5	11.9	14

*Table 1: Feed Calculation Table taken from The Blue Cross*

**Remember, like with humans, weight loss is not a quick fix!** On average, horses with BCS >5 can lose 1% body weight weekly whereas those with BCS >4 will lose 1% every 2 weeks.

**Exercise is key** but this is not always possible in horses/ ponies with issues like laminitis. **Avoid over rugging** also – remember fat horses have plenty of natural insulation! If out in the field, they can move around to keep warm. Stabled horses are less able to do this so rugging may be more necessary.

As horses start losing weight, **grazing can start to be introduced**. This needs to be introduced **gradually** and the feed ration being fed should be reduced e.g. for the first 2 hours of grazing, reduce the daily food ration by 0.25% of the horse's body weight. Ways in which you can cut down grass intake include:

- **Reduce the time spent grazing**
- **Increase the herd size in the grazing season**
- **Use a grazing muzzle**
- **Strip graze horses**
- **Mix grazing with sheep**



### 0 = Emaciated



- No fatty tissue can be felt – skin tight over bones
- Shape of individual bones visible
- Marked ewe-neck
- Very prominent backbone and pelvis
- Very sunken rump
- Deep cavity under tail
- Large gap between thighs

### 3 = Healthy weight



- Thin layer of fat under the skin
- Muscles on neck less defined
- Shoulders and neck blend smoothly into body
- Back is flat or forms only a slight ridge
- Ribs not visible but easily felt
- Rump beginning to appear rounded
- Hip bones just visible

### 1 = Very thin



- Barely any fatty tissue – shape of bones visible
- Narrow ewe-neck
- Ribs easily visible
- Prominent backbone, croup and tail head
- Sunken rump
- Cavity under tail
- Gap between thighs

### 4 = Fat



- Muscles hard to determine
- Spongy fat developing on crest
- Fat behind shoulders
- Ribs and pelvis difficult to feel
- Rump well rounded – apple shaped from behind
- Spongy fat around tail head
- Gutter along back

### 2 = Very lean



- Very thin layer of fat under the skin
- Narrow neck – muscles sharply defined
- Backbone covered but still protruding
- Withers, shoulders and neck accentuated
- Ribs just visible
- Hip bones easily visible but rounded
- Rump sloping from backbone to point of hips, only rounded if very fit

### 5 = Obese



- Bloated, bloated appearance
- Muscles not visible
- Pronounced crest with hard fat
- Pads of fat; ribs cannot be felt
- Deep gutter along back and rump
- Lumps of fat around tail head
- Very bulging apple shaped rump
- Inner thighs pressing together

Table 2: Body Condition Scoring on a 6-point scale courtesy of the Blue Cross