

Assessing my horse's weight, body condition and laminitic risk

What proportion of UK horses are obese?

Estimates vary widely but up to 50% of horses and 70% of ponies have widely been quoted as obese.

Obesity is recognised as becoming the new normal in many equine populations and disciplines.

Why is it important?

Obesity causes the body to be in a pro- inflammation state and makes all animals less strong in almost every body system.

Particularly important in horses is the development of equine metabolic syndrome (or EMS)- which is basically a pre-diabetes state. This means the horse's metabolism is set in an "energy consumed is mostly stored state" rather than an "energy consumed is mainly used state" and leads to the storage of excess energy as fat. Lots of horses classed as "good doers" that seem to get "fat on air" have EMS, their genetics would be useful in a famine but not with our lush Scottish grass! EMS is a major risk factor for laminitis, which is a painful condition which always causes damage to a horse's feet, however mild it may appear in some. In severe cases laminitis can require expensive and prolonged treatment and can not uncommonly lead to euthanasia.

How can we assess laminitic risk?

There is no very reliable predictor for laminitis risk yet unfortunately.

Various blood samples can be used to help assess the risk. These include both resting and stimulation tests for both Cushing's disease and for equine metabolic syndrome or EMS (the stimulation tests where there has been a result in the grey area for a resting test). Having either disease significantly increases risk of developing laminitis and horses can suffer from both sometimes. Testing for EMS is best done before the grazing season starts. A bout of laminitis is a definite reason to test for both EMS and Cushing's, although Cushing's is very rare in younger animals.

Assessment of body condition is a useful way of looking for horses it would be worth testing for EMS, although some horses with normal body condition can still have EMS (although these horses were usually obese in the past). Not every obese horse has EMS either- things are never that simple!

How can we assess body condition?

Getting an idea of what your horse's ideal weight should be is vital to be able to be able to adjust management appropriately. Horses come in such a variety of sizes and shapes that, unlike humans, body mass index (BMI) is of no use. The two most useful are body condition or fat scoring and cresty neck scoring, the latter has recently been shown to be useful as a predictor for EMS and so laminitis.

Ideal horses have a body condition score of 3/5 and a cresty neck score of 2 or less. Scoring charts from the British Horse Society are provided at the end for your use.

How do we monitor weight changes in horses?

The most accurate way to monitor weight is to weigh the horse using equine scales regularly. Unfortunately, suitable scales are expensive and beyond most yards, let alone individuals (£1000 to several £1000s). In yards where they are available it is worth noting that muscle weighs twice as much as fat so looking at the intensity of training, condition scoring and girth measurement is important in assessing horses in intense training with weight gain. Smart scales that can measure fat percentage for horses are a long way off!

Girth measurements with weight tapes are a useful way to monitor weight changes in horses, although other factors can affect the result (such as gut fill, growth and pregnancy). They are more accurate for changes in weight, easy to

do and there is evidence that increases in girth measurement can be associated with an increased risk of laminitis. Highly recommended to do twice weekly and to keep a record.

Body condition and cresty neck scoring changes are very gradual- it can take months for a noticeable change- and so are less helpful, although a drop in score in an overweight animal is great.

How can we encourage weight loss in horses?

So now we know it is important to avoid obesity, how do we encourage flicking that metabolic switch from “storage” to “usage”?

There is no one method for every horse and the “good doer” type will need a lot of effort to get much loss. Methods **mostly are based on eat less and move more**, and include:

- **Grazing**
 - Less time grazing- although recent studies show horses can eat 24 hours’ worth of grass in 4 hours if they try hard enough!
 - Less good grazing- grazing with more horses or co-grazing with sheep or cattle can help
 - Less area to graze in- although can reduce exercise, see below, and “starvation” paddocks where the grass is grazed down to below 2cm can damage the pasture. If possible, have two or more small summer paddocks where one is reseeded with meadow grasses and recovers each year
 - Consider building a post and rail fenced area with woodchip to allow turnout without grazing and only a small, measured, amount of roughage with “good doers”
- **Roughage**
 - Soaking hay (12 hours in normal UK conditions, if very warm needs to be a lot less to prevent bacterial overgrowth)
 - Consider replacing up to 30% of hay with good quality oat or barley straw
 - Avoiding haylage unless respiratory issue
- **Supplementary feed**
 - Consider reducing to bare minimum- a balancer and, at most, a small amount of chaff
 - Avoid titbits or at least reduce to a minimum
- **Exercise**
 - Key means of flicking the switch to “usage” from “storage”
 - Even lunging for 10 minutes a couple of times a week can make a difference and even Shetlands can be taught to do this!
 - Consider a sharer if you lack the time to exercise your horse as much as they need
 - Increasing exercise needs to be built up to steadily
 - Use of the [“Tracks system”/“Pasture paradise”](#) to split fields up into tracks where the horse has to keep moving. N.B. care if some horses have bullying tendencies
 - Putting roughage at a distance from water source
 - Not suitable for lame horses and restarting exercise after a bout of laminitis needs discussion with your vet
- **Use lighter or no rugs**
 - In severe weather rugs will be necessary but encouraging horses to move to keep warm aids weight loss and can make a big difference
- **Grazing muzzles**
 - Can be helpful in some cases but need removing at least daily, not well tolerated by some horses and danger of “bingeing” if the horse manages to remove them
 - Useful [link](#) about grazing muzzles
- **Try and find a “weight loss buddy”**
 - Find an owner on your yard with a similar aim to slim their horse and share tips and progress
 - 45% more effective in human weight loss studies!

- **Do not try a crash diet!**
 - Feeding less than 1.5% of bodyweight roughage should only ever be done under direct veterinary supervision
 - It's never wise to rapidly change your horse's management as colic can be triggered but horses that are overweight in particular can be prone to life threatening metabolic problems such as hyperlipaemia if they are starved- it is important to always get veterinary advice

Other resources

[When Grass is Greener](#), a guide to weight loss from Liverpool university and the Horse trust, including a weight diary

[World Horse Welfare how to know if your horse is the right weight leaflet](#)

[Blue Cross Fat Horse Slim guide](#)

[NEWC Grazing Muzzle Guidance](#)

[Weight tracker download](#)- an in-depth spreadsheet for the very keen!

APPENDIX- Girth measurements and scoring systems

How to take a girth measurement

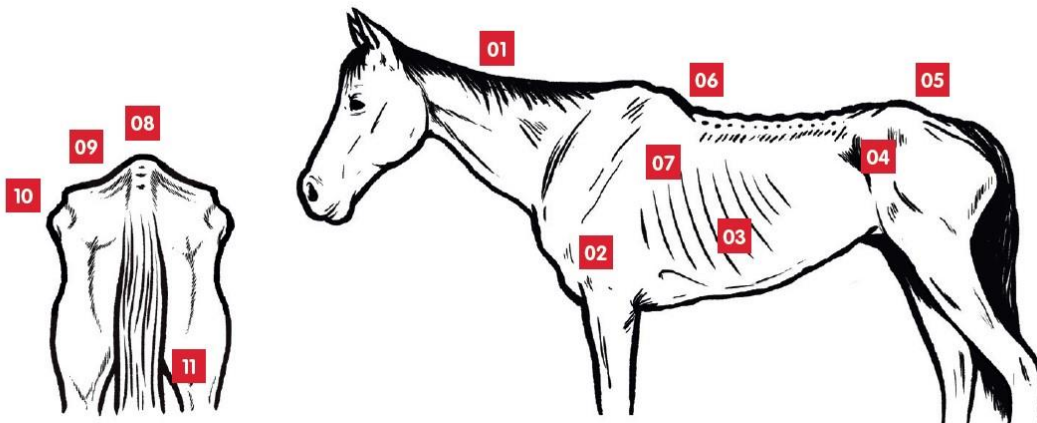
- Place your tape measure around the girth of the horse.
- Ensure the tape measure is not twisted
- Position the tape measure at the lowest point of the withers (just before they slope into the back) and as close behind the elbow as you can (NOT as you would place a girth)
- Your tape measure should be on a slight diagonal angle, make sure this is the case on both sides.
- Pull the tape measure snugly (especially if you have a furry mammoth!) but not so tight that it indents the skin.
- Line the tape measure up, ensuring your hand is not placed underneath it, wait for the horse/pony to breathe out (exhale) and record the measurement.
- The most important thing to remember is to be consistent- same person, taking the same measurements, at the same times, in the same place

Body condition and cresty neck scoring guides follow over the following pages

Body condition scoring chart

(British Horse Society, <https://www.bhs.org.uk/advice-and-information/horse-care/fat-scoring>)

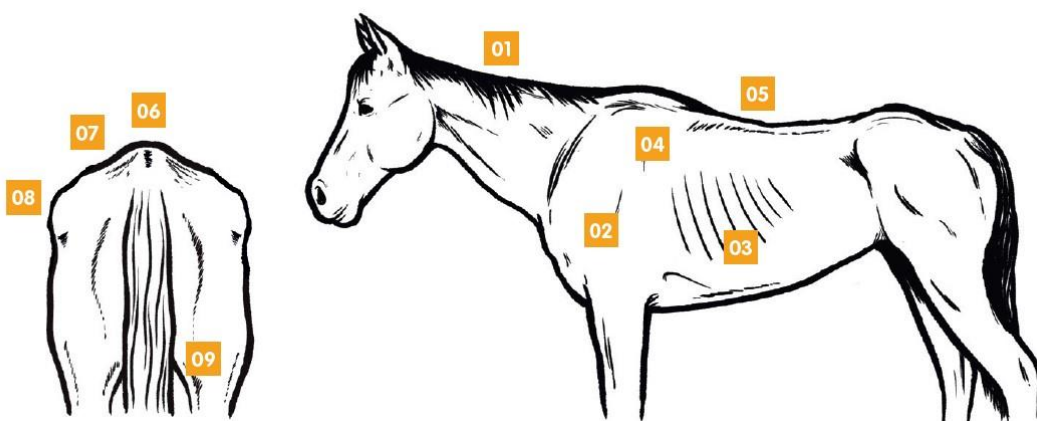
0 - EMACIATED



- 01. Neck very thin with little muscle and no fat covering the top
- 02. No fatty tissue can be felt on the horse
- 03. Ribs easily seen and felt
- 04. Shape of each individual bone can be easily seen
- 05. Skin tight over bones
- 06. Spine easily seen and felt

- 07. Very sunken and sloping from the spine to the ribs
- 08. Tail bone protrudes
- 09. Very sunken sloping hindquarters either side of the spine
- 10. Pelvis and hips are very easy to see and feel
- 11. Large gap in between top of back legs and under tail

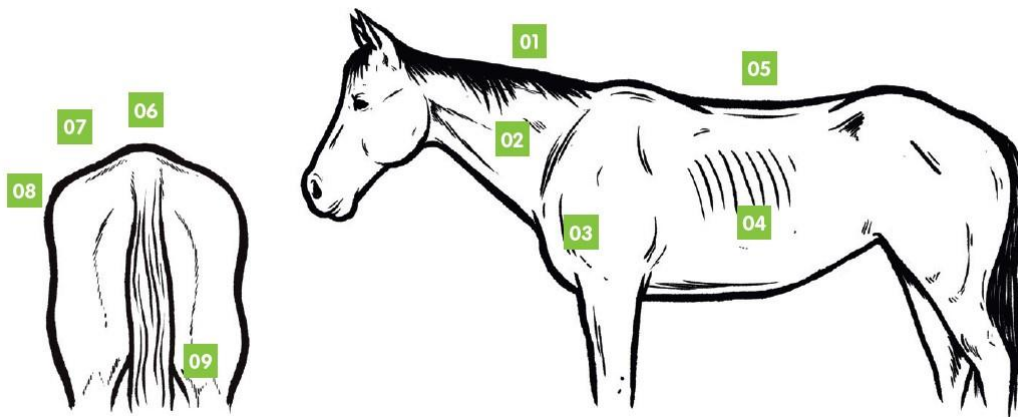
1 - UNDERWEIGHT



- 01. Neck thin, little muscle and fat covering the top
- 02. Very little fatty tissue can be felt on the horse
- 03. Ribs can be seen and felt
- 04. Sunken and sloping from the spine to the ribs
- 05. Spine can be seen and felt without pressure
- 06. Tail bone protrudes slightly

- 07. Sunken sloping hindquarters either side of the spine
- 08. Pelvis and hips are easy to see and feel
- 09. Large gap in between top of back legs and under tail

2 - MODERATE



01. A slightly thin neck

02. Shape of the neck muscles can be seen

03. A very thin layer of fat covering the body

04. Ribs are just visible and can be felt

05. Spine can be felt

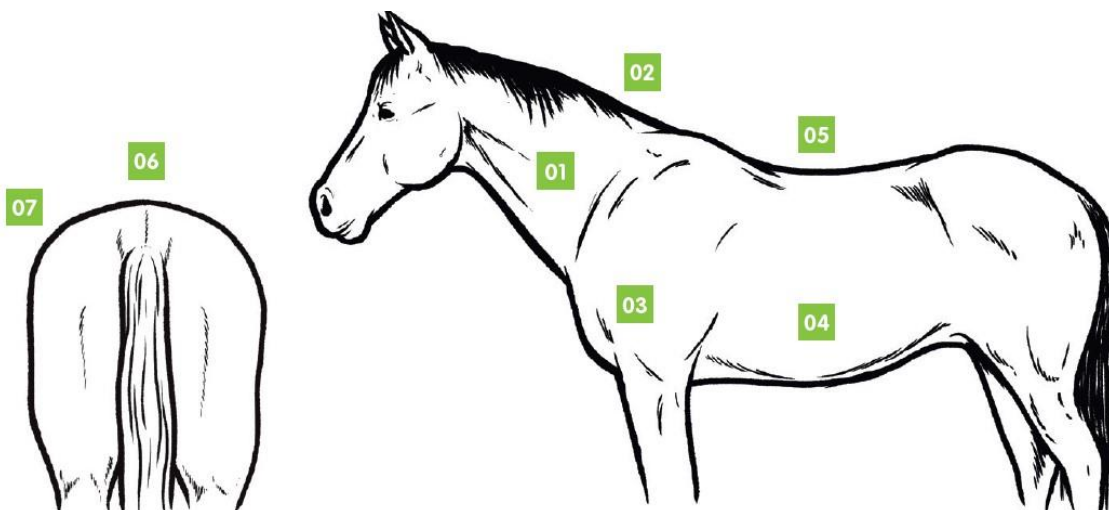
06. Tail bone protrudes slightly

07. Slightly sunken sloping hindquarters either side of the spine

08. Hip bones easily visible but covered by a thin layer of fat

09. Slight gap in between top of back legs and under the tail

3 - HEALTHY



01. Shape of the neck muscles are less clear

02. No crest (no fat underneath the mane) except for stallions

03. Thin layer of fat covering the body

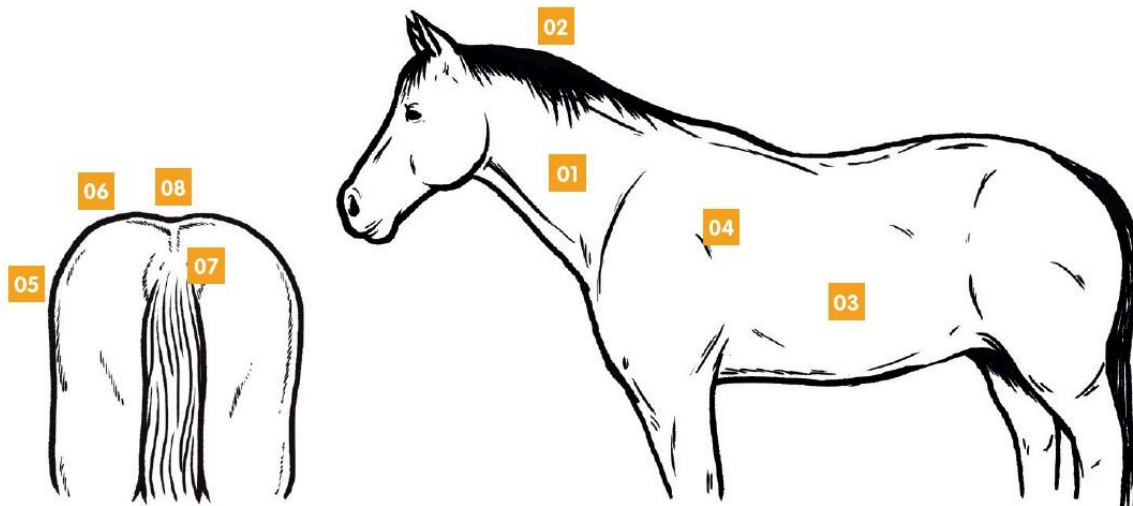
04. Ribs cannot be seen but easily felt with light pressure

05. Spine is covered but can still be felt

06. Hindquarters are beginning to become rounder in shape

07. Hip bones are just visible and can be easily felt

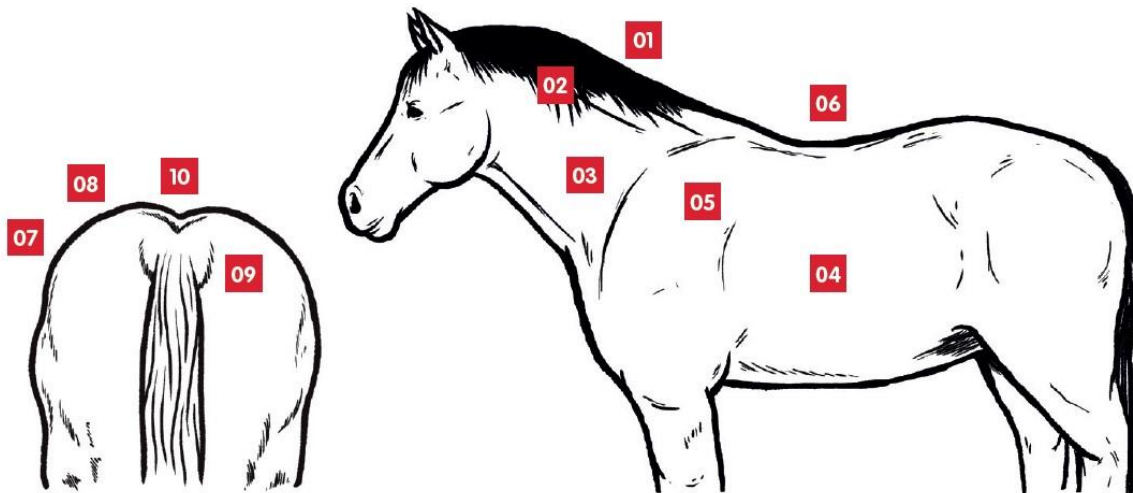
4 - OVERWEIGHT



- 01. Shape of the neck muscles cannot be seen
- 02. Spongy fat can be felt along the neck, below the mane (known as the crest)
- 03. Ribs well covered with fat which can be felt with firm pressure
- 04. Fat can be seen and felt behind the shoulders

- 05. Pelvis and hips are difficult to feel
- 06. Hindquarters are rounded
- 07. Fat around tail head
- 08. A 'gutter' can be seen along the spine to the tail head

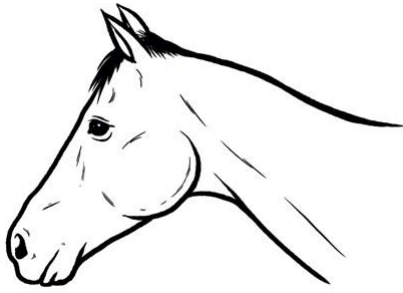
5 - OBESE



- 01. Wide and firm neck
- 02. Large amount of fat below the mane (known as the crest)
- 03. Neck muscles not visible
- 04. Ribs are buried in fat and cannot be felt
- 05. Pads of fat along body
- 06. Back is flat and broad like a table top

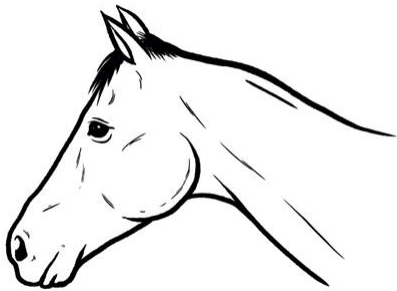
- 07. Hips are buried and cannot be felt
 - 08. Hindquarters are a well rounded apple shape
 - 09. Large amounts of fat around tail head
 - 10. A deep 'gutter' can be seen along the spine to the tail head
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ZERO



No crest can be seen or felt

ONE



No crest can be seen but small amount of fat can be felt

TWO



A crest can be seen but the fat is spread evenly from the poll to the withers. The crest can be held easily in one hand and is flexible and easy to bend from side to side.

THREE



The crest is thick with a larger amount of fat in the centre of the neck than the poll or withers. The crest fills a hand and is not so easy to bend from side to side.

FOUR



The crest is large and thickened with hard fat and cannot be held with one hand or bent easily from side to side. The crest may have creases along the top.

FIVE



The crest is extremely large and droops to one side.