Body Condition Scoring Your Horse

What is body condition scoring?

Not everybody has a livestock scale to monitor changes in their horse’s body weight. An easy alternative for determining if you are meeting your horse’s caloric (energy) needs is to monitor your horse’s body condition.

The body condition scoring system for horses assigns a numerical value from 1 to 9 based on the deposition of fat in the areas of the loin, ribs, tailhead, withers, neck, and shoulders (see Figure 1). The system works by assessing fat both visually and by palpation in each of these six areas.

Feeling your horse’s body, in combination with a visual appraisal, is especially important in the winter. A long, thick winter hair coat may disguise a thin horse.

The condition scoring system is based on fat deposition, not on the horse's muscle tone; therefore, the system can be used with all breeds of horses.

Body condition can be affected by a variety of factors:
- food availability
- reproductive activities
- weather
- performance or work activities
- dental problems
- feeding practices

Excessively thin horses may be:
- ill
- heavily parasitized
- underfed
- have dental problems

A horse that is not receiving an adequate level of calories in their diet will lose body fat and body weight, and therefore, body condition. In contrast, a horse that is being overfed will deposit body fat, gain weight, and increase their body condition. If the horse’s body condition remains unchanged over time, the dietary energy intake is equal to the amount of energy expended by the horse (i.e. the calories going in equal the calories going out).

The actual body condition of a horse can also affect its reproductive capability, performance ability and health. Therefore, it is important to achieve and maintain proper body condition. As a rough guide, the ribs of a horse that is carrying the right amount of fat are easily felt but not seen.

Figure 1. Six key areas to evaluate fat deposition.
Characteristics of individual body condition scores

The following descriptions of each body condition score have been modified from Henneke et al. (1983) Equine Vet. J. 15:371-372.

1. Poor
The horse is extremely emaciated. The backbone, ribs, hipbones, and tailhead are all very prominent. The neck is hollow, and the bones of the shoulders, withers and neck are easily noticeable. Individual vertebrae are clearly seen and easily felt. No fat can be felt anywhere.

2. Very thin
The horse is emaciated. The backbone is prominent and the ribs, tailhead and hipbones stand out. There is a slight fat covering over the vertebrae in the spine, but individual vertebrae are visible. The bones in the shoulders, withers and neck are faintly noticeable.

3. Thin
The backbone is prominent. The tailhead is evident, but individual vertebrae cannot be seen. Ribs are easily visible, but a slight fat layer can be felt over the ribs. Hipbones appear rounded, but they are easily seen. Neck, withers and shoulders are emphasized.

4. Moderately thin
The vertebrae produce a slight ridge along the back. A faint outline of the ribs is visible. The prominence of the tailhead depends on breed and conformation, but fat can be felt around the tailhead. Hipbones cannot be seen. Neck, withers and shoulders are not obviously thin.

5. Moderate
The horse's back is level. Fat around the tailhead appears spongy. Withers are rounded, and the shoulders and neck blend smoothly into the body. Ribs cannot be seen, but are easily felt.

6. Moderately fleshy
The horse may have a slight inverted crease along the spine as fat is built up along the back. Fat around the tailhead feels soft. Fat over the ribs feels spongy. Small deposits of fat are over the withers, behind the shoulders and along the sides of the neck.

7. Fleshy
The horse has an inverted crease along the spine as fat is built up along the back. Fat around the tailhead feels soft. Individual ribs can be felt, but there is noticeable filling between ribs with fat. Noticeable fat is over the withers, behind the shoulders and along the sides of the neck.

8. Fat
The horse has a noticeable inverted crease along the back. Fat around the tailhead feels very soft. Individual ribs are difficult to feel due to the fat in between. Noticeable thickening of the neck. The area over the withers is filled with fat. The space behind the shoulders is filled in and flush with the barrel of the horse. Fat is deposited along the inner buttocks.

9. Extremely fat
The horse has an obvious inverted crease along the back. Fat appears in patches over the rib area. Bulging fat appears over the tailhead, withers, neck and shoulders. Fat along inner buttocks may rub together and the flank is filled in flush with the barrel of the horse.
Ideal body condition for different classes of horses

Broodmares
Research has demonstrated that the reproductive performance of non-lactating mares is best when they are maintained at a condition score of 5 or higher. Establishing and maintaining pregnancy becomes increasingly more difficult when the body condition score of mares drops below this level.

Most mares will experience a small to moderate weight loss during lactation. To ensure mares are at a condition score of 5 or more at the time of rebreeding, they should foal at a condition score of more than 6. This degree of body fatness should be established during the first eight months of pregnancy, because digestive capacity is reduced during the last trimester and gaining weight while nursing may be difficult for the mare.

Research has shown that obesity (condition score 9) is not detrimental to reproductive performance and does not increase foaling difficulty. This degree of body fatness, however, severely limits a horse’s performance capability and is considered unhealthy.

Stallions
Research has not demonstrated a relationship between reproductive performance and condition score in stallions. However, an extremely thin (condition score less than 3) or an extremely fat (condition score 8 or 9) condition would be unhealthy.

Some stallions are quite active during the breeding season. As a result, they lose a considerable amount of weight. For these stallions, establishing a higher degree of body fatness (condition score of 6 or 7) before the breeding season would ensure that they would not become too thin during the breeding season.

Performance horses
Excess body fat has been shown to adversely affect performance in human athletes, but the effect of body fat on the performance of equine athletes has not been studied in detail. Thus, the optimum body condition score for performance horses is unknown.

Horses competing in strenuous and demanding activities, such as racing and endurance riding, require a high degree of fitness. Horses participating in these types of activities are usually maintained at a body condition score of 4 to 5.

By comparison, activities such as pleasure riding are less strenuous and require only a moderate degree of fitness. Horses competing in these activities usually have a body condition score of 5 to 7.

Growing horses
Monitoring the body condition of growing horses is important, particularly during their first year when they are growing the most. Overweight foals place more stress on their bones and joints, which could contribute to developmental problems. Developmental problems may also result from a thin foal that is sick, underfed, not receiving enough milk from its dam or carrying a heavy parasite burden. Weanlings and yearlings should be maintained at a body condition score of 5.

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