

Body Condition Scoring

What is body condition score, why is it important, and what are its implications for endurance riding?

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THE BODY CONDITION SCORE, or BCS, was first developed in 1985 by Dr. Don Henneke while he was at Texas A&M University. His system has evolved into the industry standard to describe a horse's body condition in a numerical fashion that attempts to remove as much subjective description to a horse's body mass and weight as possible.

Just like the American Association of Equine Practitioners' lameness scoring system, where a horse's lameness is determined on a scale of 0 to 5 using a standardized set of symptoms to determine the lameness grade, the BCS assigns a numerical number to a horse's body condition based on a visual and physical assessment of the amount of fat in six sites on the horse's body.

Using the BCS system, horses are graded from 1 to 9, and results are consistent regardless of the breed, size, age or sex of the horse. And while the system is somewhat subjective, it has proven to be fairly uniform, repeatable and consistent, regardless of different humans performing the assessment. In fact, the BCS system is now the gold standard for law enforcement agencies and the body condition scoring chart is used and accepted universally in courts of law.

Using the BCS system, fat is assessed in six areas of the horse's body: the loin, ribs, tailhead, withers, neck and shoulder. The number scored is based on the fat amounts, or lack thereof, in all six of these areas.

Horses that have a BCS of 1 are emaciated and in very poor condition. Their bones in all six areas are easily seen and felt with little to no flesh covering these areas.

Horses that are a BCS of 5 are considered the ideal weight for most average pleasure horses, with their neck and shoulder blending smoothly into their body, their backs being level, fat present around their tailhead, their ribs are not seen but can easily be felt, and their withers are nicely rounded.

Horses that have a BCS of 9 are what would be thought of as morbidly obese in human terms. These horses have bulging fat deposits in all six of their scoring areas with an obvious positive crease down their back.

Most athletic horses are recommended to have a BCS of 4 to 7 depending on their intended sport. For example, endurance horses, polo ponies and eventers

are recommended to be at least 4-5, while race horses, including harness horses, are recommended to have a BCS of 4-6. Show jumpers will often be a 5-6 and show hunters often come in at a BCS of 6-7.

Horses that have scores of 3 or less have virtually no fat reserves and will have to dip into their muscle mass when energy requirements exceed their stores.

In the old days of endurance riding it was not uncommon to see horses with BCS of 3s or even 2s. With the advent of more research into sports physiology and nutrition it has become clear that horses need more body reserves and stores of fat to not only compete at the highest levels of endurance, but just to finish a ride.

Specific to our sport of endurance riding, Dr. Susan Garlinghouse published two papers that resulted from research work conducted at the 1995, 1996 and 1998 Western States Endurance Ride, or the Tevis Cup. In both papers, Dr. Garlinghouse surprised many by clearly showing that the body weight of the rider was not significant to a horse completing the demanding 100-mile ride, but that clearly the horse's own BCS mattered.

(The research papers are available for viewing at: www.aerc.org/Research_1995_96_TevisStudy.pdf and www.aerc.org/Research_1998_TevisStudy.pdf.)

Quoting from Dr. Garlinghouse's 1999 paper: "Condition score had a significant effect on performance. Animals that completed the race had higher condition scores (mean value 4.5 +/- 0.5) than animals disqualified for metabolic failure (<3.5)(p<0.0001). Condition score did not have an effect on disqualification due to other reasons, including lameness. . . . These results agree with

previously reported data (Garlinghouse and Burrell), in that no horses completed with BCS less than 3.5. Horses with BCS 4.0 had higher completion rates, with the highest completion rates observed in horses with BCS approximately 5-5.5."

This concept of adequate body reserves has largely become uniform in all sport horse disciplines. Across the board, thin, bony, rib-showing horses with BCS scores of 2-3 are mostly things of the past. Nearly all sport disciplines have learned to apply the knowledge that high-fat diets are muscle-sparing and endurance-enhancing in most equine events

that last longer than one to two minutes. And indeed with even the short events, high-fat diets and adequate body condition has been used to prevent and manage many muscle disorders that previously were untreatable and rendered the horses unusable.

The AERC Veterinary Committee has had several recent discussions on condition scores and would like to start including BCS on the rider cards. And while a low BCS would not be grounds for elimination from a ride, within the past year some thin horses of with body condition scores of 2-3 have generated strong discussion during and after rides among riders and ride vets about what to do with these horses.

The issue has been raised not only over concern for the individual horses' benefit but for the need for greater awareness of horse welfare across the board. Concern has correctly been expressed that allowing thin horses with BCS of less than 3 are only inviting the ire and scrutiny of animal rights circles. ■

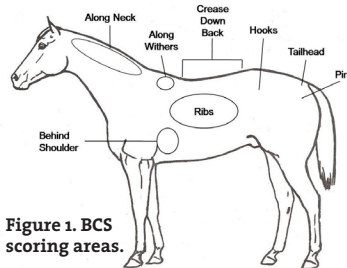


Figure 1. BCS scoring areas.