

Refeeding the Starved Horse

What's the difference between a hungry horse and a starved horse?

Horses, like other animals, use the food they eat to meet the requirements of growth and maintenance. Under normal circumstances, horses eat enough grass, hay, and grain to provide plenty of energy for body functions as well as whatever exercise they are required to perform. They can sustain most functions for some time when low levels of feed are available, although weight loss may result as stored fat is burned. If the period of low or no feed is extended, they begin to utilize protein (tissue from muscles, heart, and gastrointestinal tract) for energy. It is this burning of protein and resultant loss of body mass that differentiates a starved horse from one that is merely low on calories for a short period.

What's the best way to begin rehabilitation of starved horses?

Bringing a starved horse back to good health and body weight is a difficult task that may take three to five months of careful management. Even with the best of care, some horses will not survive, especially those that have lost as much as 50% of their normal body weight.

Note: before any treatment is started, it is critical to determine whether weight loss is due to underfeeding, or results from a medical condition that has caused the horse to stop eating. Treatment is quite different in each case, and caregivers should not assume that an extremely thin horse has simply not had access to feed. Suggestions in this article refer to horses that have been deprived of adequate food for an extended period, but are otherwise in good health.

Physical examination is the first step in rehabilitation, but caretakers need to proceed slowly and cautiously. Horses in poor bodily condition may have received little or no handling or training, and are almost certainly under stress because of being transported and adjusting to new surroundings and handlers. Quiet, gentle handling is advised to minimize excitement and avoid injury.

Frequently, a starved horse has had minimal attention to teeth, hooves, coat, vaccinations, and parasite control. Vaccinations may need to be postponed until the horse is in better condition. Overgrown hooves should be reshaped a little at a time in frequent trims, and several half-dose dewormings are suggested to avoid reactions to large numbers of dead parasites. A veterinarian can advise on specific ways to correct any problems associated with neglect, but the general rule is to proceed in small steps. Hay and feed must also be started very gradually.

Why is it dangerous to simply give the horse all the food it will eat?

The natural tendency of caregivers may be to offer a starved horse free-choice hay or pasture, but this approach can cause a serious or even fatal reaction known as refeeding syndrome. A sudden overload of calories shocks all body systems, and frequently leads to death three to five days after unlimited feeding commences. Although the horse may be ravenous, a strict schedule of frequent mini-meals is the safest course of action.

What type of diet is best for starved horses?

A study at the UC-Davis Center for Equine Health experimented with feeding three diets to starved horses that had been seized by animal control and humane organizations. Diet one was oat hay, which is high in fiber but low in protein. Diet two was alfalfa hay, which is high in protein but lower in starch. Diet three was a complete feed that combined grain, fat, molasses, and alfalfa and contained 19% starch. The horses were offered the diets, which varied in volume but contained the same caloric content, for ten days.

Horses responded best to the alfalfa hay diet. In addition to protein, alfalfa provides necessary electrolytes that have become depleted in starved horses. Alfalfa's relatively low starch content did not cause a steep rise in insulin, a reaction that can contribute to kidney, heart, and respiratory failure in horses without sufficient electrolyte stores. The oat hay, with its high fiber content, caused diarrhea in some horses, and the high-carbohydrate feed triggered a dangerous insulin spike.

In another trial, two equal-calorie diets—alfalfa hay, and alfalfa hay with corn oil—were evaluated. Again, alfalfa hay was judged superior for initial feedings because it provided a better range of nutrients in addition to calories.

How should hay be offered?

The most cautious recommendation is to give a handful (no more than a pound) of alfalfa hay every three to four hours, to total about six to eight pounds in 24 hours for a horse weighing 1000 pounds. This should be continued for the first three days. If the horse tolerates this program with no diarrhea or other problems, the amount of hay can be gradually increased and the number of feedings decreased. By the sixth day, the horse should be receiving three or four pounds of hay every six to eight hours (12 to 13 pounds per day). Amounts of hay should then be increased gradually until, 10 to 14 days into the program, the horse is eating free-choice hay. Clean grass or mixed hay can be used if alfalfa causes severe diarrhea.

When can concentrated feed be given?

Even after the horse is eating a large quantity of hay, grain must be introduced carefully to avoid metabolic problems. In the UC-Davis experiment, no concentrate was offered during the ten-day trial. In some recommended treatments, grain is not fed until the third or fourth week, and very small amounts (four ounces twice a day) are given. Grain is then increased very gradually until the horse is eating the desired amount. The daily amount of grain should not exceed one percent of the horse's body weight (10 pounds a day for a horse weighing 1000 pounds) and no single feeding should exceed five pounds of grain. A fortified concentrate with 12% protein is adequate for the rehabilitation of mature horses. Salt should be introduced slowly, beginning at a rate of 2 ounces a day. Water should always be available.

What if the horse refuses food?

Pain, illness, fever, and stress may depress the horse's appetite, or he may simply not have the energy to chew and swallow. Horses that refuse to eat can sometimes be tempted with a little fresh grass, oats, bran mash, or treats such as carrots or apples. Only a small amount should be offered, and uneaten food should be removed from the feed tub.

What is the prognosis for starved horses?

A sound nutritional plan, along with careful attention from a handler, veterinarian, and farrier, can save many starved horses. Recovery may take several months, and during this time each horse must be evaluated and treated on an individual basis.