The Modern Equine Vet

Ask the Nutritionist

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***Ask the Nutritionist** is a new monthly column featuring questions answered by PhD equine nutritionists and sponsored by Purina Animal Nutrition. Have a nutrition question you want to see featured? Email Marie Rosenthal. For clinics looking for specific nutritional advice, visit purinamills.com/ask-an-expert.*

What should the refeeding plan be when rehabilitating a severely malnourished horse?

A complete veterinary exam is the first step to rehabilitation, including an assessment of liver, kidney and gastrointestinal function to check for underlying conditions. Following the exam, a refeeding plan that facilitates weight gain but avoids potential complications can be implemented. Remember to record initial body weight and take photographs of the horse to document current condition and future progress.

REFEEDING SYNDROME

Horses with a body condition score (BCS) under 3 are most susceptible to refeeding syndrome, a condition characterized by potentially fatal shifts in fluids and electrolytes that can lead to heart, respiratory and kidney failure. Symptoms include increased muscle weakness, neurologic dysfunction, and aggression. To reduce the risk of refeeding syndrome in emaciated horses, follow the 10-day feeding protocol outlined below.

REFEEDING: THE FIRST 10 DAYS

The first 10 days of refeeding are critical when rehabilitating a severely starved horse. For the average-sized horse (1,100 pounds), follow this plan in order to minimize the risk of complications:

- **Days 1–3:** Offer approximately 1.3 pounds of leafy alfalfa every 4 hours around the clock.
- **Days 4–6:** Slowly increase the amount of alfalfa and decrease the number of feedings. Work up to offering a total of 16.5 pounds of hay per day, offered in 3 meals at 8-hour intervals.
- **Days 7–10:** Continue feeding alfalfa hay divided into 3 meals per day and monitor closely.
- **Throughout:** If diarrhea appears or persists, consider replacing a portion of the alfalfa with good quality grass hay. Always provide free-choice access to water.

After 10 days, re-evaluate the horse's weight. If the horse has responded well to the 10-day refeeding protocol, begin twice-daily feedings with free-choice access to alfalfa hay. Slowly introduce concentrate feeds, and evaluate the horse's deworming program and assess dental health. If the horse remains in a critical state after 10 days, continue providing 3 meals a day of alfalfa hay until the horse becomes stabilized.

CHEWING OR INAPPETENCE

If a horse cannot properly chew or ingest feed and/or forage, there are a few methods to encourage eating:

- Alfalfa cubes or pellets soaked in water (on an equal weight basis) can substitute for hay during the initial refeeding period.
- If a horse completely refuses alfalfa hay products, substitute with other types of hay, soaked non-molassed beet pulp or a complete, pelleted feed like Purina® Equine Senior® horse feed.
- Enteral nutritional support with Purina® WellSolve® Well-Gel® supplement may be necessary in severe cases of inappetence.

LONG-TERM FEEDING PLAN

After a successful 10-day refeeding period, the horse is ready for a long-term plan dictated by digestible energy (DE) requirements and the amount of weight gain needed. When introducing calorie-dense concentrate feeds, feed small amounts in multiple meals per day. Increase the daily quantity of concentrates slowly, by no more than a total of 0.5–1 pound per day, until you reach the desired feeding level (use feeding directions provided by the manufacture as a guide). Continue offering high-quality forage on a free-choice basis. Monitor the horse's weight regularly, keeping in mind an increase of 1 BCS requires approximately 35–44 pounds of gain and can take up to 40–60 days.

UPCOMING TOPICS

February: Developmental orthopedic disease (DOD)
March: Foal nutrition
April: Special needs of the competition horse

ABOUT THE AUTHOR

Dr. Kelly Vineyard is a Senior Nutritionist, Equine Technical Solutions, with Purina Animal Nutrition. She provides expert technical nutrition advice and insights in a variety of areas, including new product innovation, product research, and veterinarian and customer technical support.