

HOW TO DECREASE YOUR HORSE'S RISK OF COLIC WITH NUTRITION MANAGEMENT

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Horses have evolved as grazing animals, eating a wide variety of forages and living in herds. They graze at ground level and can cover distances up to 9 miles in a 24-hour period. Free-ranging horses tend to show 10-15 distinct feeding bouts within 24 hours and spend around 10-14 hours per day on feed intake behavior. Resting or non-feeding bouts are generally of no more than 3-4 hours duration (Ellis, 2010).

The majority of today's horses have a vastly different daily routine than that of their ancestors.

Horses typically spend much of their time in stalls and smaller pastures. Horses with access to 7 hours of pasture turnout per day can walk up to 3 miles per day, which is one third the distance compared to a free ranging horse.

Horses are also reliant on the caregivers for the majority, if not all, of their forage and nutrient requirements. Most facilities have standardized feeding programs that offer 1 to 3 concentrate meals per day and 2 to 4 hay feedings per day.

Colic is one of the most common problems facing horses in modern management systems. Colic refers to a combination of signs that alert us to abdominal pain in the horse, which may be due to an accumulation of gas, fluid or feed. The severity of colic can range from mild to severe. Colic symptoms have been associated with composition of diet, changes in diet, feeding practices, exercise patterns, housing and stress.

Stress is also a huge factor in the lives of our horses and comes in numerous different forms, including, but not limited to:

- Physical (Baker et al., 1988)
 - o Exercise
 - o Heat
 - o Transport
 - o Injury/Pain
- Psychological (Saunders et al., 2002)
 - o Separation
 - o Feeding Management

Environmental and disease stressors can play a major role in compromising intestinal cells. These cells are essential for absorbing nutrients needed by the horse and also providing a barrier that stops bacteria, toxins and pathogens passing into the blood stream. This can lead to intestinal inflammation and breakdown or colic.

It is unrealistic to expect to remove all stressors from the lives of our horses, especially stress associated with exercise and transport, but it is plausible to alleviate some stress associated with feeding management.

The first place to start is with the amount of forages being fed. Most horses should be fed between 1.5% and 2.5% of their body weight in dry forage. It is widely recognized that not feeding enough forage can result in stomach and hind gut acidity, colic, wood chewing and other behavioral issues.

To mimic the natural grazing patterns of horses, it is important to feed horses in a natural grazing position. Researchers have shown a significant reduction in chewing time and saliva production when horses are fed out of buckets at chest height as compared to ground level (Ellis, 2010).

Hay bags with small holes (less than 1-inch diameter) have proven to prolong intake time, further mimicking grazing behavior and decreasing stress in horses (Glunk et al., 2013).

Through the use of quality forage sources and feeding management practices that decrease stress by mimicking natural feeding and foraging behavior, we can begin to decrease our horses risk for colic.



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