



FOUR REASONS WHY RACEHORSES BLEED

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At the gallop, when the hind legs are weight bearing and the forelegs are off the ground, the horse leaps forward, raises its head and inhales. When the forelegs are weight bearing and the hind legs are off the ground, the horse decelerates, lowers its head and exhales.

If a horse is not breathing correctly it cannot run. Breathing controls striding rather than the other way around. For generations, horses have been selected on the basis that they were 'good movers'. It now seems likely that, they have been unconsciously selected because they were also 'good breathers'.

Nevertheless, that having been said, there are at least four ways by which racehorses are regularly suffocated during the course of a race. Commonly, the airway obstruction is partial rather than complete. But any obstruction of the upper airway (the section of airway running from nostril to the level of the first rib) is, in my opinion, the primary cause of so-called bleeding from the lungs (exercise-induced pulmonary hemorrhage or, as I prefer to call it, asphyxia-induced pulmonary edema).

1. During a race, jockeys rate their horse by tension on the reins. This prevents the horse from fully extending his poll (at the atlanto-occipital joint). Even partial flexion of this joint obstructs airflow at the throat, reduces oxygen intake, and prevents the horse from obtaining all the energy it needs for maximum performance.
2. The presence of a bit in the horse's mouth is the cause of a horse 'choking-up' i.e., suffering dorsal displacement of the soft palate (DDSP). The bit is also the cause of another obstruction of the airway, albeit a less acute one, i.e., epiglottal entrapment.
3. Most Thoroughbreds have varying degrees of recurrent laryngeal neuropathy (laryngeal hemiplegia). This neurological disease of the voice box (larynx) is probably inherited, resulting from generations of inbreeding since the Thoroughbred Stud Book was first formed over 200 years ago. Complete or partial paralysis of the larynx results in varying degrees of airway obstruction.
4. It is possible that the weight of a rider on the thoracic spine prevents a galloping horse from fully extending the atlanto-axial joint. More research on this idea is needed but if it proves to be true then it provides a further explanation for the ubiquitous occurrence in the racehorse of asphyxia-induced pulmonary edema.