



WHY IS A BIT AN IMPEDIMENT TO A HORSE?

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A metal bit is an invasive foreign body in a sensitive body cavity. It controls by pain, poll flexion and partial suffocation. Unsurprisingly, it causes a string of familiar problems under the heading 'aversion to the bit.' But it also causes a host of other previously unrecognized problems that are even more serious.

The pain or possibility of pain may get a horse's attention but it can also induce the horse to take the bit between its teeth and bolt. A bit frequently injures the bars of the mouth, causing the development of painful bone spurs. Such pain is responsible for items such as stumbling, rearing, bucking and headshaking. It can spoil a horse's attitude to exercise, rendering a horse both unhappy and unhelpful.

Bit-induced poll flexion causes neck tension, obstructs the horse's airway and moves the horse's point of balance forward, so that more weight is taken on the forelegs. Habitual leaning on the bit locks-up the cervical spine and destroys that freedom of the neck so essential to an athlete. It also reduces hind limb propulsion and the effectiveness of the head/neck pendulum, an important energy saving mechanism. Airway obstruction, pain and loss of the head bob results in premature fatigue and loss of 'heart'

The bit induces reflex salivation and chewing, which are responses appropriate to eating not exercising. The chewing reflex invokes lip, tongue and jaw movement, all of which are physiologically incompatible with exercise and rapid breathing. Eating and exercising are two diametrically opposed activities that should never take place concurrently in any animal. How would readers like to run a race with a bunch of keys in their mouth? Although a horse is in no danger of swallowing the bit, it may well "swallow its tongue", displace its soft palate, inhale saliva or precipitate a spasm of its larynx. All these problems are associated with an episode of 'choking-up' or asphyxia. Asphyxia, in turn, is the cause of pulmonary 'bleeding' in racehorses.

Because the tongue is attached to the larynx, when the tongue moves so does the larynx. If the larynx is shifting about during exercise, this interferes with the free flow of air. Similarly, as the soft palate rests on the root of the tongue, any movement of the tongue causes movement of the soft palate. This, in turn, leads once again to obstruction of the airway, inspiratory stridor ('roaring') and asphyxia from dorsal displacement of the soft palate.

As breathing and striding are mechanically and physiologically coupled and the galloping horse takes one stride for every breath, any interference with breathing inevitably interferes with striding. The gait loses its natural grace and rhythm, and the stride becomes shorter. In racing, shorter strides equate to slower speeds. In addition, the forehand becomes heavier and so the risk of breakdown is higher.

Finally, in horses both young and old, the bit is the cause of many common oral and dental problems, such as buccal ulcers, sore lips, bruised gums, wolf tooth irritation and lacerations of the tongue,. All three P's, the problems, the pain and the poll flexion are more fully described in articles that are available on the website www.bitlessbridle.com. All three P's can be avoided by eliminating the bit.

The good news is that the horse can now be effectively signaled without a bit, using a fundamentally new design of bitless bridle. Unlike the bit, it controls painlessly. The mechanism of its action relies on two head loops, one over the poll and one over the nose. Together, they give the rider or driver benevolent control of the head. Steering is provided by a gentle but persuasive push on one half of the head; and where the head goes the horse follows. The bridle pushes inoffensively over a wide and painless area rather than pulling traumatically on a narrow and highly delicate area. Braking is provided by a squeeze on the whole of the head, which triggers a 'submit' response. The new bridle is marketed as *The Bitless Bridle*. More information and the bridle itself can be obtained from the address below.