

Bitting Accessories and Bitless Bridles

Dwight G. Bennett, DVM, PhD

Authors address: 2307 Tanglewood Drive, Fort Collins, CO 80525;
dwightbe@colostate.edu.

Take Home Message

A horse's performance can often be improved and many biting problems alleviated by adding bitting accessories, such as nosebands and martingales, or even by eliminating the bit entirely by using a bitless bridle. A veterinarian's familiarity with bitting accessories and various types of bitless bridles can be fully as helpful as his familiarity with the various types of bits.

Bitting Accessories

Bitting accessories are useful for increasing the rider's safety and control without the need for additional rein pressure. Nosebands help to maintain the position of a bit in a horse's mouth. Martingales alter the direction of pull on the reins, thus assuring proper action of the bit and helping the horse to maintain balance.

Nosebands

The simplest noseband, the cavesson, functions merely to stabilize the bridle or as a point of attachment for a martingale. Other types of nosebands are used to aid or modify the action of the bit.¹ Drop, flash, and figure 8 nosebands (Figs. 1A-C) are used to hold the bit in its proper position and to keep a horse from gaping its mouth. The top of the drop noseband is fitted just at the rostral end of the nasal bones, and the lower portion passes below the bit and lies in the chin groove. A drop noseband is fairly restrictive and can cause problems if not properly adjusted.² A drop noseband that is too long on top and too short below, hangs too close to the nostrils, interfering with breathing, and the bottom presses the bit into the corners of the lips and holds the mouth too tightly closed.¹

The flash noseband attaches to the center of a simple cavesson above the nose. The lower end passes below the bit and lies in the chin groove. The figure 8 or Gackle noseband has a top strap that fastens above the bit and a lower strap that fastens under the bit and lies in the chin groove. The two straps intersect in the middle of the face at about the level where a cavesson would be located. Both the flash and the figure 8 nosebands have actions similar to the drop noseband but are less severe and are not as likely to interfere with breathing.¹



Figure 1A. Drop*



Figure 1B. Flash



Figure 1C. Figure 8

Martingales

There are two basic types of martingales: the standing martingale, (Fig. 2A) known in western circles as tie-downs, and the running martingale (Fig. 2B).¹ There are numerous variations on both types, but all martingales promote balance and the proper action of a bit by discouraging, or physically preventing, the horse from raising its head too high or extending its nose too far.^{1,3} Both standing and running martingales begin with a strap running from the saddle girth up the front of the horse's chest. The standing martingale, which exerts its pressure on the horse's nose, continues as a single strap that attaches to the bottom of a noseband. The running martingale, which exerts its pressure on the bit, forks into two straps with rings at their upper ends through which the reins run. A martingale should not be adjusted so tightly that it pulls the horse's head down into an unnatural or uncomfortable position. The martingale should prevent the horse from evading the bit and becoming unbalanced, but should exert an effect only when the horse raises his head.^{1,3}

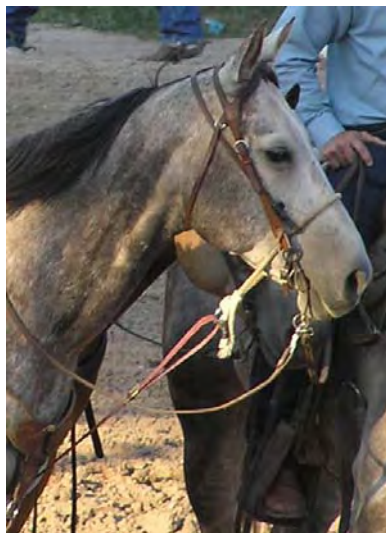


Figure 2A. Standing martingale (Tie-down) on a roping horse.



Figure 2B. Running martingale on a show jumper.

Bitless Bridles

Many riding problems and mouth injuries are caused by a combination of the wrong bit in the horse's mouth and the wrong hands on the reins. Even the mildest of snaffle bits can be damaging in the hands of an impatient or novice rider.¹ Bitless bridles can be especially useful in preventing a horse's mouth from being injured by the overzealous hands of a beginning rider or in allowing an injury to a horse's mouth to heal.⁴ The response of the horse may be so excellent that the use of the bitless bridle is continued even after the rider has developed considerable skill or the mouth of the horse has healed. Using a bitless bridle can prevent a horse from constantly working the bit with its tongue and slobbering. Bitless bridles provide a means of promoting poll flexion, collection, and balance along with optimal stopping power and directional control while avoiding interference with the horse's mouth. Some horses that don't respond well to a bit perform quite well with a bitless bridle. Bitless bridles are not for every horse or for every rider, but they work exceptionally well on some horses, and they certainly minimize the stress on a horse's mouth.

Traditional Hackamore

The heart of the traditional hackamore (Fig. 3A) is the bosal, a braided rawhide or leather noseband fashioned around a rawhide core.^{1,3} Generally, thick, heavier bosals are replaced by thinner, lighter ones as the hackamore horse progresses in training. The bosal should rest on the dorsal surface of the nose just caudal to the rostral extremity of the nasal bone.¹ A bosal placed too low exerts excessive pressure on the horse's nasal cartilages and interferes with its breathing. An 18- to 22-foot hair rope, the mecate, is wrapped above the heel knot of the bosal to form a continuous rein and a lead rope.³ Rein pressure presses the bosal into the top of the face and into contact with the cheeks and lower jaw simultaneously. The hackamore is used with a light bumping action, initiated by gently tugging on one rein at a time. Alternating pulls and releases can be used to ask the horse to flex at the poll or to stop (Fig. 3B).⁵



Figure 3A. Traditional hackamore.
1 – Mecate; 2 – Bosal; 3 - Heel Knot.



Figure 3B. On a starting colt.

Mechanical Hackamore

Although a mechanical hackamore (Figs. 4A and 4B) is indeed a bitless bridle, it functions more like a curb bit than like a true hackamore.^{1,3} A mechanical hackamore has metal shanks that attach to a noseband and curb chain. Although the mechanical hackamore has no mouthpiece, the shanks amplify 5 force to the nose, chin, and poll in the same way that a leverage bit works on the mouth, chin, and poll. The wide variety of mechanical hackamores available allow severity to be varied as required.



Figure 4A. Mechanical hackamore on an eventing horse.



Figure 4B. Mechanical hackamore on a team roping horse.

Side Pull

A side pull (Figs. 5A and B) is little more than a hybrid halter.³ Rein rings are placed on each side of the noseband in line with the corners of the horse's mouth. A chin strap beneath the rein rings allows the noseband to be snugged into position. The side pull promotes excellent lateral control without multiplying the effects of the rider's pull.^{1,3} Pressure applied to either rein literally leads the horse's nose in the direction to which pressure is applied.³

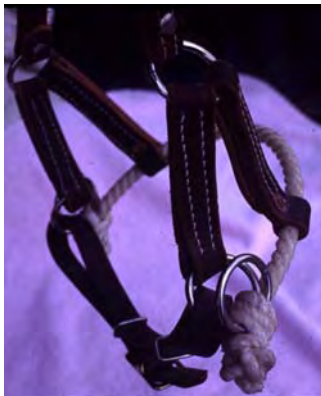


Figure 5A. Side pull.

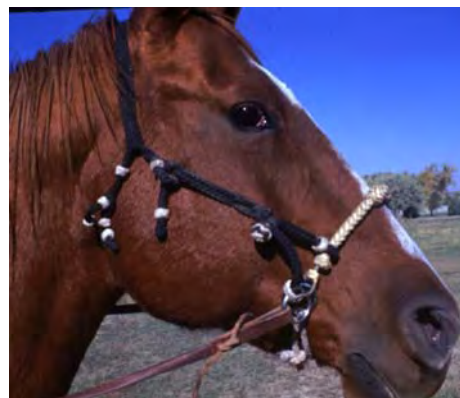


Figure 5B. On a roping horse.*

Bitless Bridle 2000

The Bitless Bridle 2000 distributes pressure across the poll, behind the ears, down the side of the face, behind the chin, and across the nose.⁶ The bridle consists of two loops, one located over the poll and one located over the nose. Both loops cross under the horse's chin.⁶ The reins run from the rider's hands through two rings on either side of a noseband and then cross beneath the horse's jaw and loop over the poll. This figure-eight configuration embraces the entire head so that simultaneous pressure can be applied to the poll, nose, chin, and cheeks.

Pulling on one rein produces pressure behind the horse's opposite ear, encouraging the horse to travel in the direction of the pulling hand by pushing the horse's head in the desired direction rather than by pulling on its mouth with a bit.⁶



Figure 6A. Bitless Bridle 2000



Figure 6B. On a Haflinger.

**Parts of figures 1 (A) and 5 (B) are reprinted from Bennett DG, Bits Bridles and Accessories, pages 9-22 in Equine Dentistry, 2nd edition, 2005, Baker and Easley editors, with permission from Elsevier.*

References

1. Bennett DG. Bits, Bridles and Accessories. in: Baker GJ and Easley J, ed. *Equine Dentistry* 2nd ed. London/New York: Saunders/Elsevier Limited, 2005:9-22.

2. Loriston-Clarke J. *The complete guide to dressage*. Philadelphia: Courage Books, 1987:130-131.
3. Lynch B, Bennett DG. *Bits and bridles: power tools for thinking riders*. Austin, TX: EquiMedia, 2000.
4. Hague BA, Honnas CM. Traumatic dental disease and soft tissue injuries of the oral cavity. *Vet Clin North Am* 1998;14:333-347
5. Connell E. *Hackamore reinsman*. Katy, TX: Lennoche Publishers, 1952.
6. Cook WR. Pathophysiology of bit control in the horse. *J Equine Vet Sci* 1999;19:196-204.