



# BIT SEATS AND BITS

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The terms "bit seats" and "performance floats" are simply new names for a procedure that has been done in equine dentistry for years. Labeling the procedure has given it more prominence and allowed some to charge an extra fee more easily. Some individuals have become more aggressive in performing these procedures. As with other aspects of equine dentistry, it is not clear these days what educational degree or training is needed for placing bit seats.

A "bit seat" is simply the beveling of both upper and lower P2s on both sides of the mouth. The purpose is to reduce the irritation caused by the bit as it bumps the front edges of the teeth when pressure is applied to the reins. The inner surface of the horse's mouth contains considerable loose, very mobile membranous tissue. When the reins are pulled and the bit moves back, a considerable amount of this loose tissue moves as well. The tissue increases in volume, depending on how much pull is applied to the reins. This tissue then becomes trapped between the mouthpiece of the bit and the anterior edges of upper and lower P2s. The results are discomfort to the horse, resistance to or avoidance of the bit, gaping of the mouth, head slinging, or worse. Trainers sometimes resort to various devices to mechanically tie the mouth shut, which usually worsens the situation. Trying to change a response by creating more discomfort seldom helps.

Improper biting probably causes more mouth problems than does lack of dental care. Improper biting also increases the discomfort and resultant resistance caused by lack of dental care. Properly biting a horse is an art, not simply a matter of mechanics. The more mechanically biting is done, the less effective it is. The horse moves stiffly as it tries to avoid pressure and discomfort.

The bit(s) normally lie across the bars of the mouth, the interdental space, and the tongue. This placement is usually midway between the lower canine tooth and the anterior edge of the premolar. A useful exercise is to see the horse in its own bridle in order to see how the rider or driver adjusts or fits the bridle to the horse. Many horses are wearing bits of improper width or bits placed too high in the mouth. When the size and placement of the bit are adjusted, many horses improve in how they wear their bridles.

The bit should barely touch the corners of the lips and should not create a wrinkle. For width, pull the bit sideways through the mouth until it contacts one side. There should be ½ to 1 inch of space between the edge of the lip and the inside edge of the bit ring or shank, depending on the kind of bit being used. This allows the bit to function without pinching while still staying centered in the horse's mouth.



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Bit seats are helpful when they are smooth in all directions, starting at the gum line, progressing caudally, and angled according to the type of bridle the horse wears and the kind of event it participates in. Both the kind of equipment and how it is used or misused are factors in deciding how aggressively to form bit seats. The more contact that is needed with the bit, the deeper the bit seat needs to be. Snaffle bits seem to require deeper bit seats than do simple curbs. The skill of the rider affects how aggressively bit seats need to be placed. The rougher the rider handles the reins, the deeper the bit seats needed to protect the horse's mouth. The use of draw reins, chambons, and running martingales increases the risk of trauma from excessive pressure in the horse's mouth.

It is important when placing bit seats that the anterior edge of the premolar be rounded in all directions and flat spots avoided. This takes practice and frequent checks on the area being filed. Both power grinders and hand floats work. My personal preference is for hand floats. For me, they work best without a full oral speculum in place. Others use a full-mouth speculum and a variety of power grinders. The important consideration is that no ridges or sharp points are left behind. Some hand finishing with S floats or specialized premolar floats is usually required. The result is a horse that is more comfortable in the bridle and that stays focused on the job at hand rather than lugging, becoming one-sided, excessively mouthing the bit, or tossing its head.

Not all mouth- and head-tossing problems can be cured by dentistry, but many problems can be prevented if dentistry is done early and frequently. Before their young horses even begin training, many knowledgeable trainers request dental care, including bit seats to avoid unnecessary discomfort that may foster bad habits. Horses may require check-ups every 3 to 4 months until they are six years of age or older. These young horses are often competing for substantial purses, so one cannot afford to make a mistake over something as easily corrected as a sharp tooth.