

Why do horses need dentists trained in occlusal equilibration?

Wild horses don't need dentists because they get 100% of their nutrition from grazing and browsing. Pulling up and chewing a variety of feedstuffs through different seasons exposes the teeth to lots of abrasive material and uses a larger jaw excursion than cut hay, thus avoiding the development of points (the sharp edges that are floated by equine dentists). Wild horses also eat from the ground, which maintains a normal flow of rough and finely chewed food through the mouth and across the grinding surfaces as they eat. This wears down their continuously erupting teeth evenly. Our domestic horses rely upon us for maintaining their teeth. When a horse has uneven growth or wear patterns in his teeth that interfere with its grinding or mouth closure, it is called a *malocclusion*. Malocclusions change the positional relationship of the upper and lower jaw. We all rely upon information from our jaw joint (TMJ) to maintain upright posture. Tracking the jaw position in relation to the skull gives essential information for keeping the head supported by the body in both standing and movement. When horses have an overbite or molar ramps, the postural control mechanisms compensate by pitching the body's center of mass rear-ward. This malocclusion exacerbates "goat-on-a-rock", or camped-in posture.

Try this exercise: Stand on level ground with your feet shoulder width apart and your arms relaxed at your sides. Feel how your body is balanced between your feet. Now, stick your chin out as far as you can, creating a temporary under-bite. Feel how you unconsciously reposition your balance. Next, pull your lower jaw back towards your neck as far as you can. Your body posture will make the opposite postural adjustment. Try side to side. If your own postural signaling is intact, you will feel your body adjust to placing itself under your jaw position, no matter where you move it.

You need to have your horse's teeth examined by an qualified dentist for malocclusions. There are lots of people who are willing to look after your horse's teeth--ranging from your neighborhood vet to the sophisticated dentistry practitioner, to the local floater. To correct posture, you need a practitioner who can perform a "dental equilibration", not just a float. What's the difference? A simple float removes the sharp points on the outside of the upper molars and the inside of the lower molars. Usually hand files are used, though some have upgraded to power tools to save time and elbow grease. Like many other areas of the horse world, dental care is full of strong opinions and mythology. Some old timers may say that one doesn't need tranquilizers or a speculum to do the job. Modern equine dentistry is sophisticated accurate work using very specialized tools. Tranquilization allows this accurate work to be done properly. Here are some important points to consider when choosing a dentist, or evaluating the work of your current one:

- 1) Your horse's front teeth (incisors) and back teeth all belong to the same mouth and must be balanced together. Any dental practitioner who doesn't do incisor work when needed is missing half the job.

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2) To equilibrate the mouth (restore correct occlusion), it is necessary to check how the teeth meet--like when your human dentist asks you to bite down to check how he or she has shaped your filling. Since it is hard to ask even the most cooperative horse how its bite feels, the equine dentist needs to have their patient sedated, so they can move its jaw without resistance and test for places with high spots.

3) Hand floats have technical limitations. A float is a file, and you make a file work by pulling its cutting edge across the surface to be rasped. A practitioner who only uses hand floats cannot remove points or other abnormalities from a horse's rear-most teeth, because they can't get behind them to pull the file across the surface--the soft tissue of the jaw is in the way. And if you don't use sedation and a proper mouth speculum with excellent lighting, you will never know what toothy monsters may lurk at the back of a horse's mouth.

It is also may be difficult to make precise changes in the front teeth with a hand file. Modern burr tools give the skilled dental practitioner the ability to make tiny alterations in the occlusal surface and shape of the teeth that can make a big difference in how they use their mouth, and subsequently change the postural information from the TMJ.

Happily, there are more and more veterinarians who are taking a special interest in dentistry and getting advanced training. There is also a growing group of equine dental technicians who are highly trained in all aspects of dental equilibration and certified by the International Association of Equine Dentistry (You can find a practitioner through their website: www.iaedonline.com). So, if you hear about a great dentist, find out what training they have had, what kind of tools they use and whether or not they will be working with the horse sedated. If they are IAED certified and have been trained within the past 15 years, they can probably be relied upon to give thorough and accurate dental care. If your veterinarian has undergone several advanced training courses with AAEP and is a member of dental specialty associations, you can be reasonably sure they can do an adequate job. Most of the time, many of the most common malocclusions can be managed by a skilled equine dentist. Since teeth erupt slowly, it make take more than one session to completely balance the mouth. Even problems that can't be truly fixed, like a twisted jaw-bone, can be made more functional by a knowledgeable and experienced dentist. Proper dental management has a profound influence on balance, posture and overall quality of life.