

# Dental Care in Racehorses



*Horse Care*

by HEATHER SMITH THOMAS

Most horses need dental care, especially if they are kept in artificial conditions and cannot wear their teeth normally. Teeth may not meet properly and tend to become uneven. Mike Barter, an equine dentist in Belen, New Mexico, works at racetracks and sees a lot of malocclusion because of what and how the horses are fed. "They've never lived like a wild horse. Their teeth have to be maintained continually—more than the average horse," he says.

In a young horse the permanent teeth are erupting, and coming in at different times. "If you don't stay right on top of it with routine dental care they'll have tooth problems that interfere with eating and with use of a bit. They may start throwing their heads and become hard to gallop. They root and don't want to take hold of the bridle, and get a bad attitude."

But horses at the track often don't get enough dental care. Most people think that if a horse is eating well, he doesn't have tooth problems. These horses are standing in stalls and eating soft feed all the time, however, so they generally don't lose weight even if they have bad teeth.

If upper and lower teeth are not in perfect alignment, uneven wear will create sharp points and hooks, especially at the back of the last lower cheek teeth. This inhibits normal movement of the jaws; the opposing tooth catches on the hook and the jaw cannot move freely. In order to change head and neck position (as when raising or lowering the head) the lower jaw has to move. If there is anything blocking that movement, the jaws are essentially locked together; the lower jaw can't slide forward or back. Then the horse has to open his mouth to create more space between the molars—opening it wider than the malocclusion, explains Barter.

"If there are hooks on the last lower cheek teeth, it causes pain in the temporal molar joint (TMJ) because the jaw cannot slide. Teeth are sometimes floated without actually getting to the very back, where those hooks are. A dentist

must have proper training and equipment to get those. This doesn't mean expensive power equipment; all that's needed is upper angle floats—proper angles to reach to the back of the mouth. A straight float just hits the back of the mouth and the horse won't tolerate it."

Most trainers realize the need for a bit seat, at the front of the cheek teeth; this alleviates some of the other mouth problems. A bit seat is created by rolling the molars and creating more space for the bit in front of the first upper and lower cheek teeth. This takes the pressure off the soft tissues—the cheek, bars and tongue—and opens a larger air passage. It also enables the horse to get a better hold on the bit—without discomfort.

"The days of just knocking wolf teeth out with a screwdriver should be over. There are better ways to make a horse more comfortable with the bit. Knocking the wolf teeth out was a common practice, but often the horse ended up with a blind wolf tooth; the root remains, under the gum surface. All you did was break the tooth, leaving the root and the nerve—which is still tender."

"All young horses—even three- and four-year-olds—should be checked to see if they have a wolf tooth. The trainer may think the teeth are out, but if they were just broken off, they may still cause problems. You may not be able to see anything there, but can feel a knot under the gum—right in front of the first cheek tooth," he says. If it's still there, it's painful when the bit touches it—until that root is completely removed.

"Another thing that sometimes needs to be done is to cut the canines (sometimes called bridle teeth) just behind the incisors. All male horses have these, and some females have small ones. A race trainer should look at the canines on every horse. Those may need to be cut down so the tongue can lie perfectly flat in the mouth, instead of being wadded and buckled up in a Z shape." If the canines protrude too much into the mouth, the tongue is bunched up between them and can't lie flat when the mouth is closed. The tongue may also get cut or rubbed raw from constant contact with these teeth. If canine teeth become long, the tongue has to fold up around them when the horse closes his mouth, says Barter. Those teeth are then in the way.

"Trainers need to understand the way the air flows through the horse's air passages, and that this can be aided or hindered by the condition of the horse's teeth. The tongue must be able to lie flat, or it will wad up and obstruct the airway—being pushed to the roof of the mouth or behind the bit. Having the tongue lie flat is so important!" says Barter.

If teeth are forcing the bit to be at the wrong angle, the snaffle isn't moving properly and puts pressure where it



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shouldn't—on the tongue and more sensitive parts of the mouth. If the horse has pain in his mouth, he won't lean into that bit and take proper hold of it.

"If the horse has a proper bit seat, a bit is more effective; the horse won't have as much resistance or steering problems. If a horse is blowing the turns, running off, lugging out or lugging in, and he doesn't have an obvious leg problem, look in his mouth; teeth could be the whole problem, causing discomfort." All too often a trainer changes bits, or even jockeys, thinking that might correct a performance problem, without suspecting the teeth. Before you switch bits or change the tack, have the horse's teeth checked by a good dentist. Trainers who are tuned in to their horses may also detect a horse becoming slightly "off" and doing less than its best, and begin to suspect a tooth problem.

"Horses living in stalls eating soft feeds from a manger or tub up off the ground, and a hay bag hanging from the stall, don't even come close to eating naturally. The jaws aren't in proper position unless the horse's head is low, like it would be when he grazes. This is why dental care is so important in racehorses. And so many of them are young, with the teeth still coming in. If the teeth don't erupt evenly, you get problems, because there's an unopposed tooth that doesn't get proper wear."

He's seen some people float caps completely off, but feels this is detrimental. "I only remove a cap if it's a problem or ready to come off and the horse hasn't shed it. I only float off sharp points of caps. The cap is there to protect the permanent tooth as it is still coming in. If the cap comes off too soon, the permanent tooth is not yet developed enough to withstand wear. If you float that cap off, you expose the new tooth and get premature wear on it, before its surface is strong," he says.

Sometimes when caps (in two and three year olds) are floated off too aggressively, cap shards are left in the mouth—pieces of the cap that never come off. "These can cause the horse a lot of misery. You find these when you try to float the teeth again later; out come all these big chunks that are razor sharp—the horse has been running his tongue

over those. These occur because the cap was floated off or broken up—and it didn't come off in one piece like it was supposed to," he says.

"Many times when I work on racehorses, I pull out cap shards—even on six and seven year olds. Those shards have been in there ever since the caps were broken or floated off, making it so the cap was never opposed. Under normal conditions, the cap comes off because it is opposed, and rough against the opposing tooth. That causes it to break off. You shouldn't pull it until after the permanent tooth under it has erupted. The erupting tooth is sensitive to decay and needs some protection. The cap is supposed to be on there until the permanent tooth develops and is fully erupted," he says. He has also found many cheek injuries in young horses, 30 to 60 days after the caps have been removed, due to the developing enamel edges on the permanent teeth.

"Frequently checking the molars on young horses will determine the condition within the mouth and amount of smoothing the teeth need. The amount to be taken off can be determined by reading the incisors; you shouldn't take more off the molar tables than off the incisors. You check them and take off the high points—just the basic maintenance to keep that horse in balance, and let mother nature do the rest," he says.

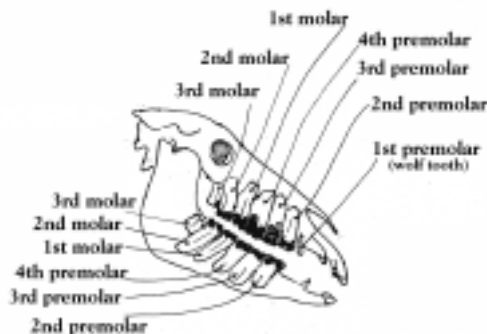
"When you look down the horse's mouth, you see what can or can't be taken off; you can't take more off the cheek teeth than the incisors, or the cheek teeth won't meet anymore. Long incisors will keep the cheek teeth from meeting if you've over-floated the cheek teeth. If you just take off the high points and take down the incisors to match, teeth will "grow" and get up to proper level," says Barter.

"A young horse at the track often gets a step mouth, due to not shedding caps correctly—because of abnormal eating conditions. The caps stay on longer than they should, then come off unevenly, maybe off one side of the mouth before the other," he says. Under natural conditions a horse would be eating grass instead of softer feeds, and there would be proper wear on the teeth, causing the caps to come off at the proper time.

"I believe our job as dentists is to try to put the horse's teeth where they would be if he were in a natural environment—to correct problems created by unnatural conditions, such as standing in a stall eating soft feeds instead of grazing. If you have to make a major change in the teeth, it should be a gradual change so muscles and tendons of the jaws can readjust. The masseter muscle (on the cheek) is a huge muscle. If you put the jaw in a place it hasn't been, due to malocclusion (if you change it all at once), it hurts. The horse has to relearn how to eat. The temporal molar joint stays sore for awhile, just because it's back in the right place after being out of place so long," he says.

"That's our job, to put that horse back into balance—rather than doing something excessive. We need to look at the horse's age and realize what his teeth should look like at that age. If a horse is 14 years old he should have a longer tooth than a four-year-old, for instance," he says.

**Skull of a two-year-old showing the "caps" (baby teeth being pushed out by permanent teeth) shaded dark**



“But I’ve seen teeth cut down to nothing. That’s harmful for the horse—especially if at some time later he will be on pasture. If that horse gets turned out tomorrow, is he going to be able to eat? If he spends the later years of his life turned out (or a race filly becomes a broodmare and must manage on pasture), will that horse be able to eat?” A horse has only so much tooth to erupt, and if we take off too much of it in his early years he may run out of tooth too soon, if he has to start eating forages that are more wearing. “If we take five years off the life of his teeth in one whack, he’ll run out of teeth a lot faster,” says Barter.

“Every time I work on a horse, or fix a malocclusion, I ask myself, how much tooth life am I taking off this horse? When fixing a wave mouth, this is an important consideration. A wave in the molar table is common in horses fed in stalls, with feed always up off the ground. The line of cheek teeth may be high (or low) in front and the “level” may go up and down. When taking that wave out, I was taught to smooth off the high teeth and let the low areas erupt (to catch up), instead of taking everything clear down to one level. If you only reduce the high teeth, the low ones will come on up, since they are now unopposed—and “grow” to where they should be. This is better than cutting it all out completely. If you do that you may be taking years off that horse’s life. You’ll be cutting his teeth down to nothing,” he explains.

“If we just take the high teeth down, everything else will take care of itself. I like to give those teeth a chance by com-

ing back in three months to check on them and taking a little more if need be. These horses should be checked at least every six months. If one does that, it’s an inexpensive job to maintain what’s already fixed; you don’t have to make drastic corrections. It’s easier on the horse and on everyone involved. But sometimes teeth get overlooked. On the training chart, most horses have a schedule for foot care. They should also have a schedule for tooth care,” he says. Regular tooth care is just as important as regular hoof care, for keeping a racehorse performing at peak ability.

