



Dr. Boswell with assistant Sean Welmorts floats the teeth of a miniature donkey. The mouth speculum keeps the mouth open for access to all teeth, and Sean helps support the sedated animal's head. A mechanized float is used. (Photo by Naomi Saiz.)

### HEALTH

# Time for a "Float" Why annual dental care is essential to your horse's health

BY STACIE G. BOSWELL, DVM, DACVS

Horses that have excellent health maintenance can live well into their 30s. Routine annual health care for horses should include an oral exam and, when abnormalities are identified, a dental "float."

But what is a "float?" How is it determined that a float is necessary? Is it something that only older horses need if they aren't chewing properly? Why do horses need floating?

## Dental care isn't just for older horses

In younger horses, an examination is important to ensure that all the teeth are aligned properly, that there are no extra teeth present, and that the adult teeth are replacing the baby teeth normally.

The teeth in a horse change significantly between birth and age five. Problems during this time frame are uncommon, but they do occur.

Adult teeth replace the deciduous (baby) teeth. The small portion of the deciduous tooth covers and protects the adult tooth as it erupts. This is called a cap. If caps do not fall out properly, they may need to be removed. If caps are removed too soon, the underlying developing adult tooth may sustain serious damage.

Correcting possible abnormalities in the young and growing horse will help ensure a lifetime of good teeth and good health. It also will help ensure that the bitting and training process is successful.

#### Inside a horse's mouth

All horses have incisors. These are smaller teeth in the front of the horse's mouth that are used for plucking grass. Horses also have premolars and molars. Together, these are commonly referred to as "cheek teeth" and are aligned together in a dental arcade. Their function is to grind forage. Between the incisors and the cheek teeth is the interdental space, more commonly known as the bars, which is where a bit should rest.

Specialized teeth that are observed in some, but not all, horses include the wolf tooth and the canine tooth. Both of these are also located in the interdental space between the incisors and the cheek teeth. The canines are more commonly known as "fighting teeth" and are found in most males (stallions and geldings) and few mares. They are variable in size. Wolf teeth are technically the first premolar, although they are very different in appearance from the other premolar cheek teeth. Wolf teeth are only sometimes present because they often fall out on their own. Some horsemen will have the wolf teeth purposefully removed, but they are often observed in riding horses and usually do not cause problems.

#### How abnormal wear occurs

Because horses are meant to grind rough forage, their cheek teeth are hypsodont. A hypsodont tooth has a very long crown and continues to erupt throughout the horse's lifetime. Reserve crown is the part of the tooth that is as yet unerupted, and in a young horse, these fill most of the sinus cavity. A very old horse will have no reserve crown, and is said to be "smooth mouthed." When hypsodont teeth line up perfectly, the opposing teeth wear each other off perfectly as the horse eats. However, slight misalignments commonly occur. These misalignments result in uneven wear.

Another reason abnormal wear may occur is the type of food that a horse consumes. Horses' teeth are meant to wear each other down through sideways grinding action on long-stemmed forage. Grains and pelleted feeds are chewed with a different, more up-and-down motion, and can change the wear on the horse's teeth.

Acquired abnormalities can also occur. These are the most difficult problems

to correct and they include fractures of the jaw, fractures of the cheek teeth, excessive wear of upper incisors from cribbing, and damage from metal slow feeders or other objects.

While some dental problems can be detected by simply pulling down the tongue and looking in the mouth (in a cooperative horse), an annual sedated exam with a mouth speculum in place is a more thorough and safer approach.

#### The float

A "float" is simply rasping the teeth to remove sharp points that occur due to misalignments and other abnormalities. The points may cause ulcerations and pain to the horse, especially while ridden with a bit. The float removes these points, restoring function and comfort. There are hand floats and mechanized floats, both of which have pros and cons. A mechanized float can remove portions of teeth very quickly; however, this makes it easier to remove too much. Friction from the hand float can cause heat, which may damage the tooth.

Some horsemen are under the impression that floating is only for when a horse is aging or losing weight. This is absolutely false. As with most things in life, maintenance is critical. If the teeth are allowed to become severely misaligned, it is impossible to restore normality. However, small corrections over the life of the horse prevent any problems from becoming severe.

Routine points include maxillary (upper) sharp edges near the cheek and mandibular (lower) sharp edges near the tongue. Misalignment from front to back is very common and results in maxillary hooks and corresponding mandibular ramps. The hooks and ramps are simply where a portion of one tooth is not worn off because there is no corresponding tooth area opposing it. The float removes ramps, hooks and sharp points. The majority of floating is directed at the cheek teeth, which are doing the most work chewing forage.

Left uncorrected, hooks, ramps and other abnormalities can result in oral ulcerations, bitting problems, pain, inability to chew food properly, and potentially a shortened lifespan. Good oral health is critical to the longevity of the horse. Young horses can have problems as their teeth erupt. An annual, sedated oral examination is recommended for all horses. Floating removes commonly identified dental abnormalities and restores function of the teeth and comfort to the horse.

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A wolf tooth (first premolar) on the right maxillary (upper) dental arcade. The second premolar behind it had a hook that has been removed by floating.



A large hook has developed on this left maxillary cheek tooth.



This young horse had an abnormality in alignment as his deciduous (baby) teeth are shed and the adult teeth erupting.



The same horse as pictured above after floating. There is a small, red ulceration visible just below this tooth where the point was contacting the cheek. This horse's attitude about training has improved since this was corrected.