

## Equine Dentistry- Dr. Mike Ross

There is an old saying that the key to equine health comes down to three things. These are Teeth, Feet, and Worms. I'm sure we all agree that there is considerably more to equine health than that, but it signifies the importance of equine dentistry.

Equine Dentistry has been around for centuries. It was practiced by the Chinese as early as 600 B.C., and even Aristotle gave an account on periodontal disease in horses in his book, History of Animals (333 B.C.).

Equine teeth differ from what we as humans have for dentition. Horses have what are called hypsodont teeth and humans have what are classified as brachyodont teeth. A few dentistry modalities can be taken from human dentistry, but most have little direct application to the hypsodont dentition of the horse. Hypsodont teeth are also called high-crowned and have many fold-like creases of enamel. They have a different structure than human teeth, and continue to grow and wear throughout the horse's lifetime. Some examples of animals with hypsodont dentition are cows, horses and deer; all animals that feed on gritty, fibrous material. Horse's teeth can continue growing until they are up to 28 years of age.

Horses can have a total of 36 to 44 teeth. This depends on age, sex, and presence of rudimentary teeth like "wolf teeth". They usually have 12 incisors, 4 canine or bridle teeth (in geldings and studs), 0-4 wolf teeth, and 24 premolars and molars. The incisors are the teeth used most commonly in which age is determined by observing when adult teeth erupt and wear patterns.

Dental disease can present due to many causes. Some symptoms of equine dental disease are abnormal eating behavior like head tilt, quidding (dropping balls of feed), slobbering and excess salivation. Sometimes you may notice discharge or foul odor from their mouth. Refusal to eat or selective eating, combined with chronic weight loss can be noted. Some horses with poor teeth can have long hay particles in their feces which may predispose them to conditions like colic. You may also notice problems with training like head shaking, resisting turns, resisting bridling, mouthing or chewing the bit. Facial or jaw swelling can also be an early indicator of root infections or abnormal dentition.

The most common routine procedure we perform is called a "float". Floating teeth is done by reducing the sharp enamel edges on the molars which may develop. The upper rows of cheek teeth in the horse are wider apart than the lower rows. Therefore sharp enamel points develop usually against the cheek on the upper teeth and against the tongue on the lowers. In fact the word float is derived from a Greek word meaning "bevel". Therefore, we are beveling the edges of the molars to make the horse more comfortable and help balance wear that will occur in the future.



Other procedures we perform routinely are incisor reduction and alignment, rounding canine teeth, hook and ramp reductions, step mouth and wave mouth reductions, cheek tooth extraction, and bit seats. We routinely do dental procedures on young horses before training which includes extraction of wolf teeth, extraction of loose caps (baby pre-molars), and performance floats. This ensures no bad habits will develop during training due to oral pain.

Huge advances in equine dental science have been made in the last 10 years. There have been more rigorous scientific studies done in the last 10 years than the last 100 years. It is a very exciting time to be an equine dentist now days.

A commonly asked question is, "How often do I need to get my horses teeth done or examined?" This is very simple and depends on the degree or level of performance of your equine. If they are a pasture pet or brood mare you may want to have them examined once to determine if they have any major problems, and after that only as they show signs of dental disease or become elderly should they be examined and treated. High level performance horses whose livelihood depends on zero risk of dental disease will probably need checkups and floats every six months. Moderate work type horses probably get away with a routine float every two years. Equines with problems identified early, sometimes need dental work done every six months to one year.

You may wonder why your horse needs so much intervention when a wild horse needs little or no attention. Horses in the wild graze predominantly on grass which is high in silica and acts to wear the animal's teeth in a normal way. Their head is always down in the natural grazing position and they graze for 18 hours a day. In a stable they are sometimes fed two meals, morning and night, consisting of a dense caloric ration which contains a number of other feedstuffs. Our domesticated horses also have bridles, halters, and bits to contend with, that come into contact with the soft tissue around razor sharp enamel points. In the wild the horses with developmental dental disease probably succumb to Mother Nature at an early age.

There are preventative measures you can take to keep your horse from developing dental disease. First, feed your horse on the ground when possible. This is the normal grazing position of the animal and will help prevent abnormal wear. When possible, feeding should be spread out to get your horse foraging for as much time as his diet permits. Have your horse's mouth examined for major problems early, for example before training to ensure they do not have a problem that may be corrected early. Routine floats and dental work can also add years to your horse's life.

Don't hesitate to call us and book your appointment today. January and February are Dental Health Months and September is Dental Awareness Month at Dawson Creek Veterinary Clinic. We look forward to looking in your horse in the mouth! [www.dcvet.ca](http://www.dcvet.ca)