

Common Sense in Equine Dentistry



How does the owner know what is good dental care for their horse? From birth nature balances the horse's mouth naturally. Using this perfect system is the key to maintaining harmony in the horse's mouth and longevity for the horse. Balanced Equine dentistry uses this system to obtain harmony with out excess or neglect.



How many horses need regular dental care? All of them do, but it often becomes either a neglected or over used area of horse care.

Owners either do nothing until they really see a problem with the eating habits of their horse or they follow a rigid schedule of floating every six months as a matter of course, whether the horse needs it or not.

This presentation is an attempt to educate owners and care givers on proper care based on what fits the horse.



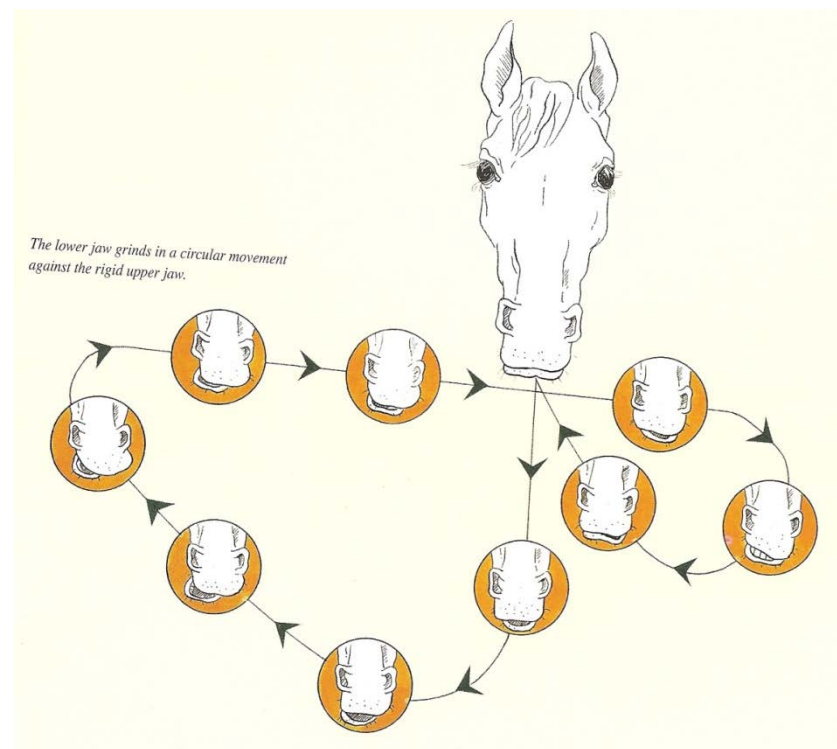
All horses need regular dental care – no matter how big or small they are



What is Balanced Dentistry

Balancing the mouth for the horse is really only removing what would inhibit the normal movement of the jaw. This way the mouth can self maintain the normal angles and function the horse was born with.

Balanced dentistry does NOT entail the removal of excessive tooth surface or rounding for comfort, both of which are detrimental to the proper function through out the equine body.

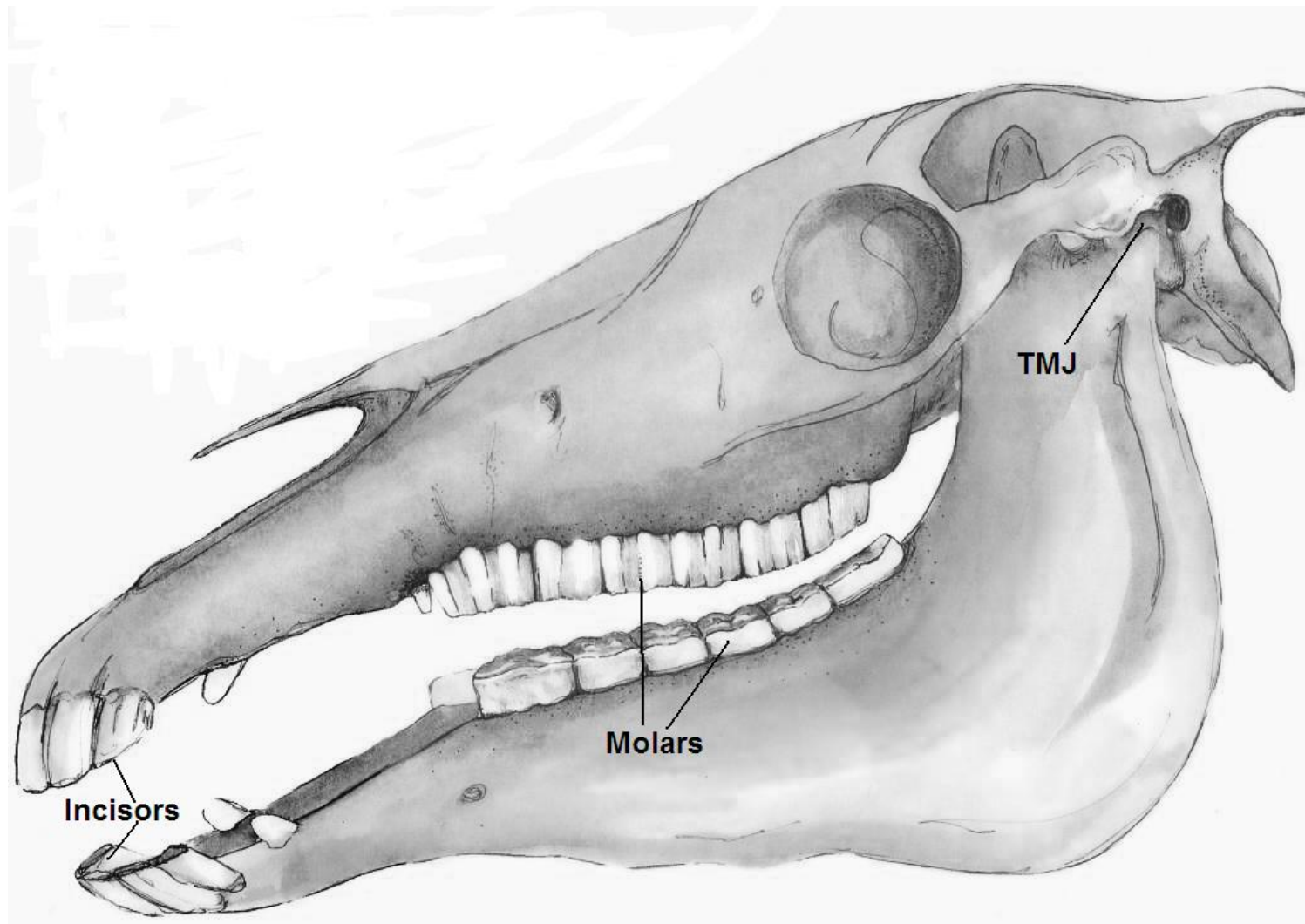


Imbalance in the mouth creates compensations and imbalances in the body.



A balanced mouth is a critical piece on the way to a balanced body, the ultimate result being the horse's ability to balance with the addition of a rider and to perform at their highest potential.

The incisors, TMJ and molars have dynamic occlusion and equal pressure when balance is achieved

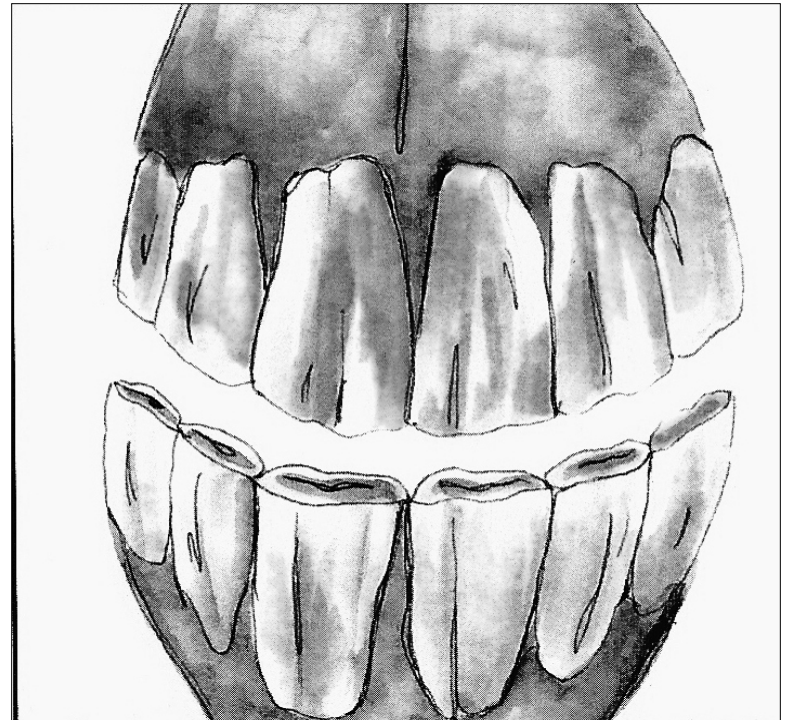


This view is of a horse with no or minimal care





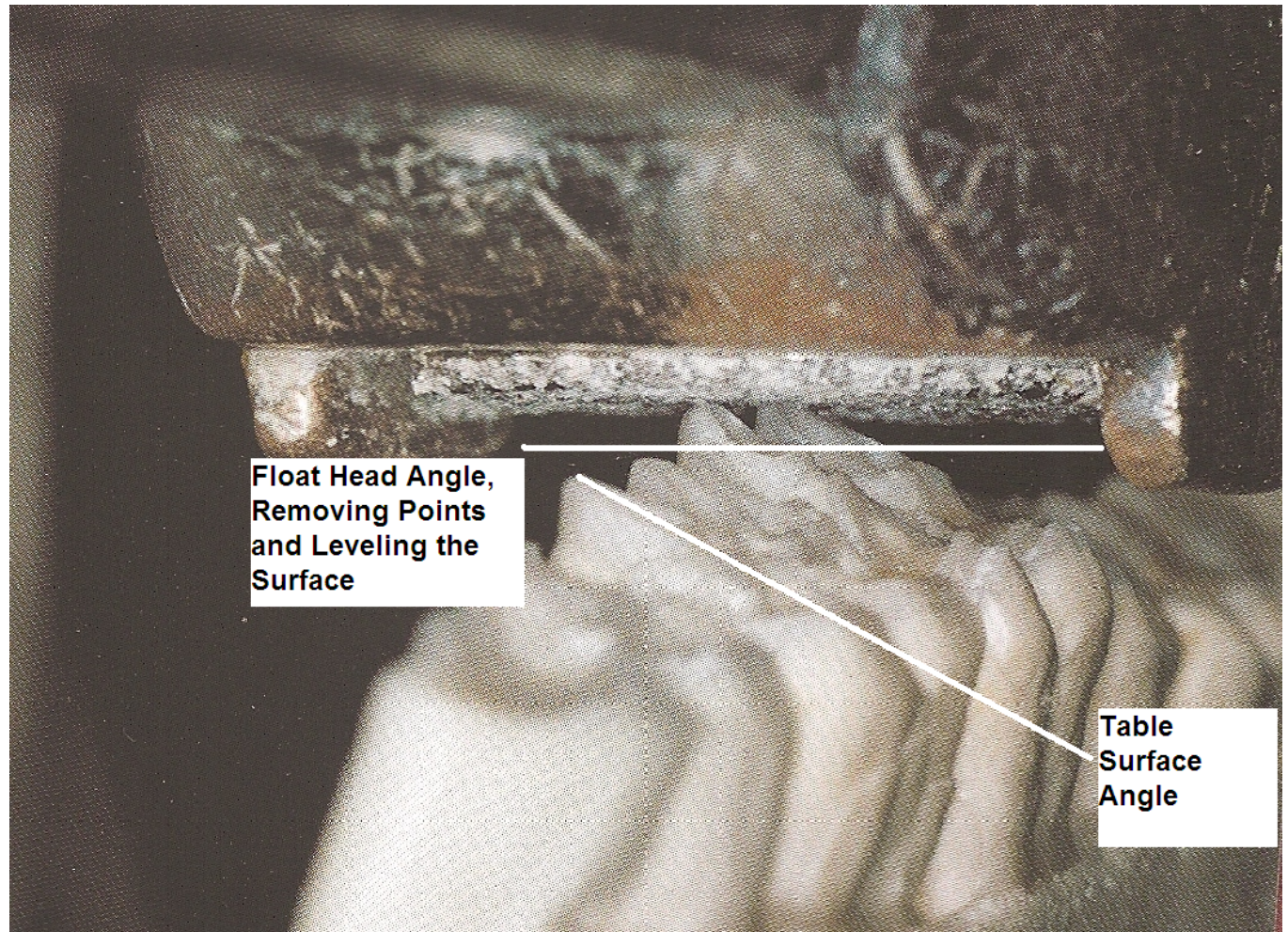
How correctly balanced
incisors should look



How balanced
incisors are depicted
in drawings

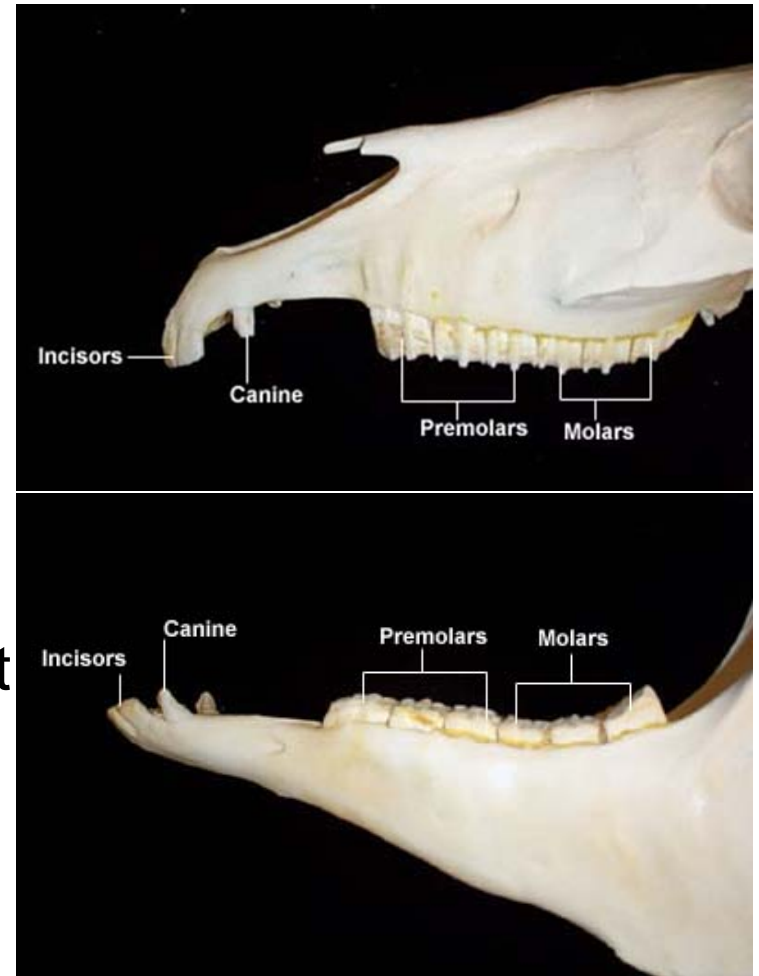
Removing Points

The float head in this picture should be on the same plane as the table surface angle, not level to base of the jaw.

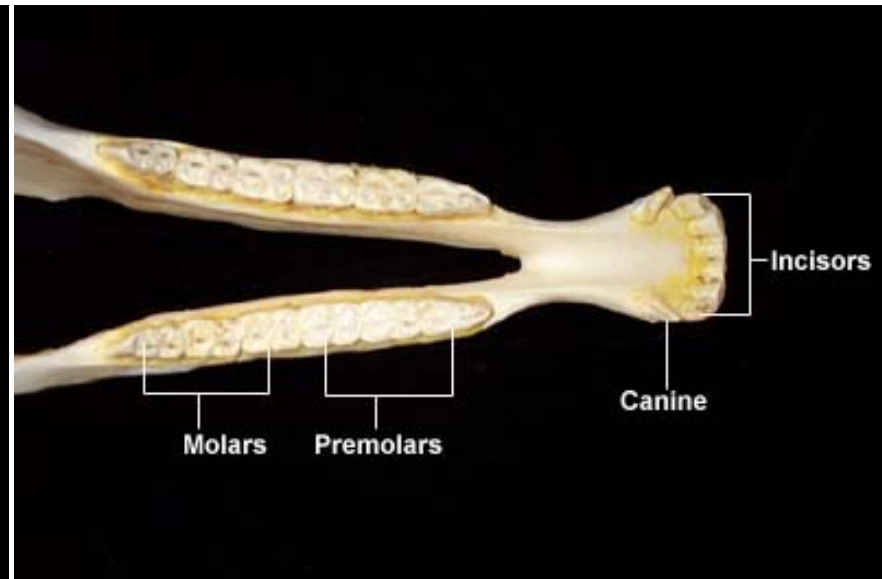
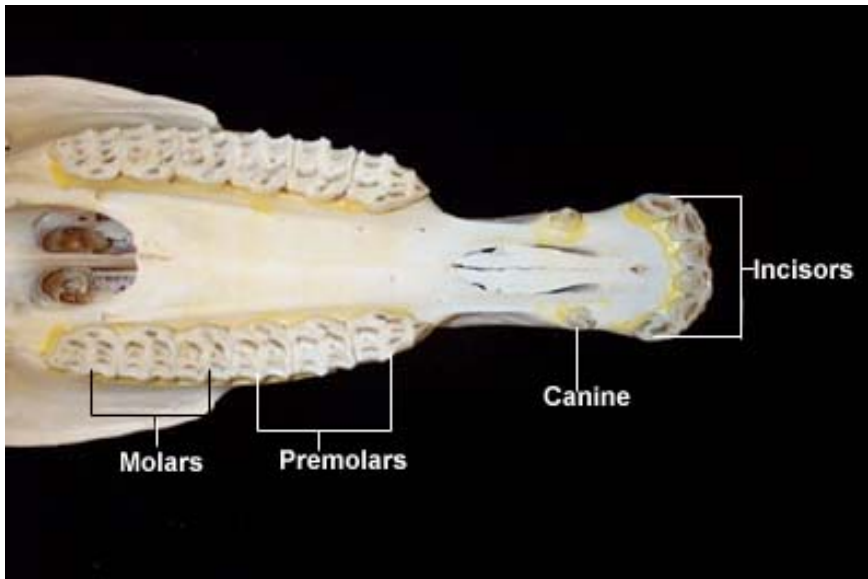


Dental Development of the Horse

Horses are born with the first three premolars in their mouth. These teeth are already in contact with each other. This gives the mouth the necessary stability for the Temporal Mandibular Joint (TMJ) to function correctly. The molars don't start to erupt until 1 year of age.



This way the incisor teeth can start to erupt properly so they will come into wear or contact with each other. This sets up the correct alignment to allow proper rotation for the jaw to keep the teeth in a state of balanced eruption related to an equal amount of wear.



The pattern of permanent tooth eruption always maintains this type of balance. Before a cap is shed there is a permanent set of teeth in contact to maintain stability in the mouth. This type of cycle continues until age five; deviations from this schedule are sometimes breed-specific.



Where to Start

For the young horse it is very appropriate to be checked every six months. The dentist will check the caps (baby teeth), ensuring that they are shedding properly and the permanent teeth are coming into balanced wear. This way he can set the horse up for success, providing balance in the mouth that will last a lifetime.



For horses over 5 years of age having their mouth checked, realigned and balanced once per year is generally good care.

Sometimes there is a small amount of balancing to be done more often, other times a check-up will reveal that there is no work to be done at all. Older horses have less changes occurring in a year than younger ones, so there may be no need for any adjustment



More frequent care is needed after improper care or the lack of care.



Occasionally an injury resulting in a greater imbalance in a horse's mouth will need more frequent adjustment to correct over time.



All of the above has to happen while taking into consideration what can be done in relation to the age of the horse.

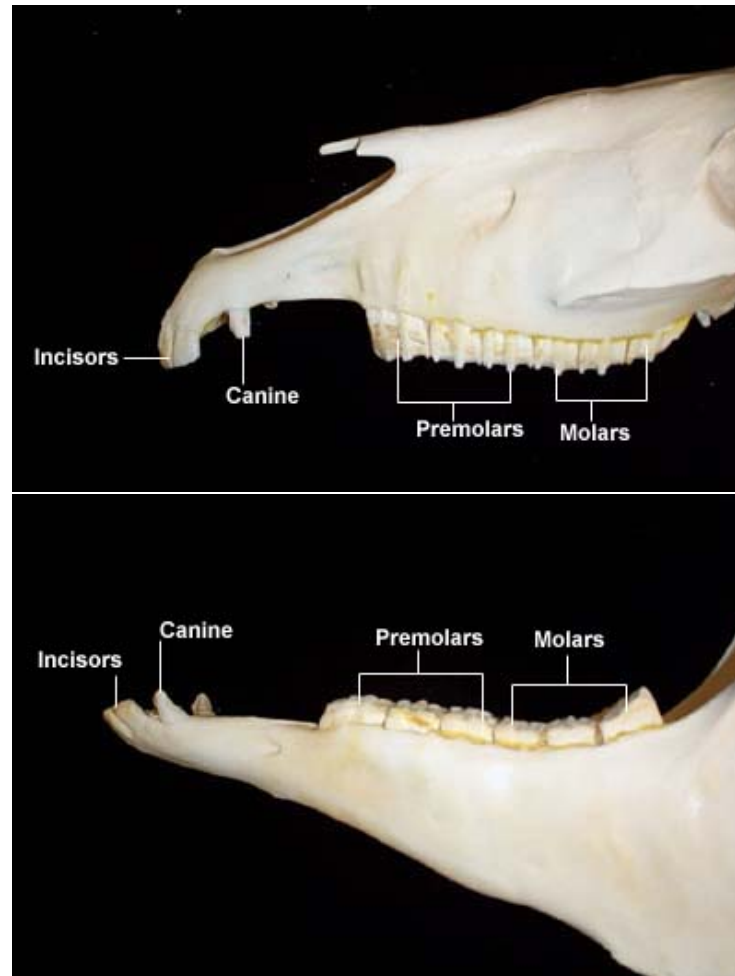


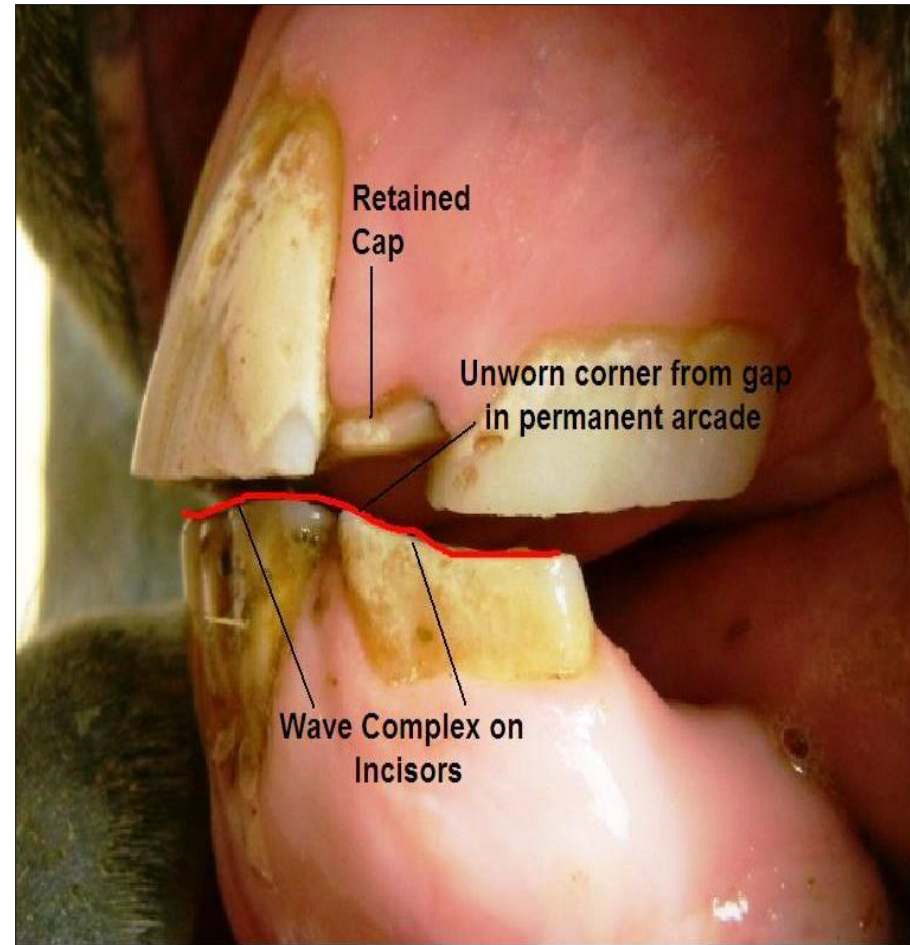
What Causes an Unbalanced Mouth?

When the horse sheds his teeth at the age of 2 ½ to 4 ½ it may happen that the caps do not get pushed off properly and therefore the permanent tooth underneath cannot correctly erupt into the proper position in relation to the other teeth.



Incorrect eruption creates misalignment of opposing teeth, which can set up a movement restriction of the jaw, which in turn creates unworn areas of all teeth, leading to sharp points and edges on the molars as well as on the incisors.





Retained caps interfering with normal alignment and balance of the incisors

Horses who do not live in “natural” living conditions with the head low for most of the day, but are stalled or singled out of a herd and live with a predominantly head high position develop hooks on the lower molars due to incorrect wear of the dental surfaces.



A lack of grazing (the uptake of coarse grass with the incisors), ingestion of soft hay or processed feed (pellets, sweet feed etc.) also contributes to physiologically incorrect wear, contributing to an unbalanced mouth.



Bit Seats are a big area of concern for the correctly balanced and self-maintaining mouth. When bit seats are ground into the first premolar they create instability at the very front of the molars. The horse needs the full surface of these premolars to maintain stability in the mouth and the TMJ.



This allows a balanced development not only in the mouth but in the whole horse as well. By reducing the contact surface of the first premolars it is possible that they hyper-erupt to rectify the out-of-balance situation causing premature failure.



Not all dentists work from the same paradigm. In the age of power tools, many horses are floated excessively and with disregard of the natural angles that determine correct function.

If the correct angle of incisors and molars is not observed, irregularities present before dental work tend to return quickly. Therefore, the horse owner may be advised that the horse needs dental work every six months. Frequent over floating and excessive adjustments will reduce the longevity of the tooth.

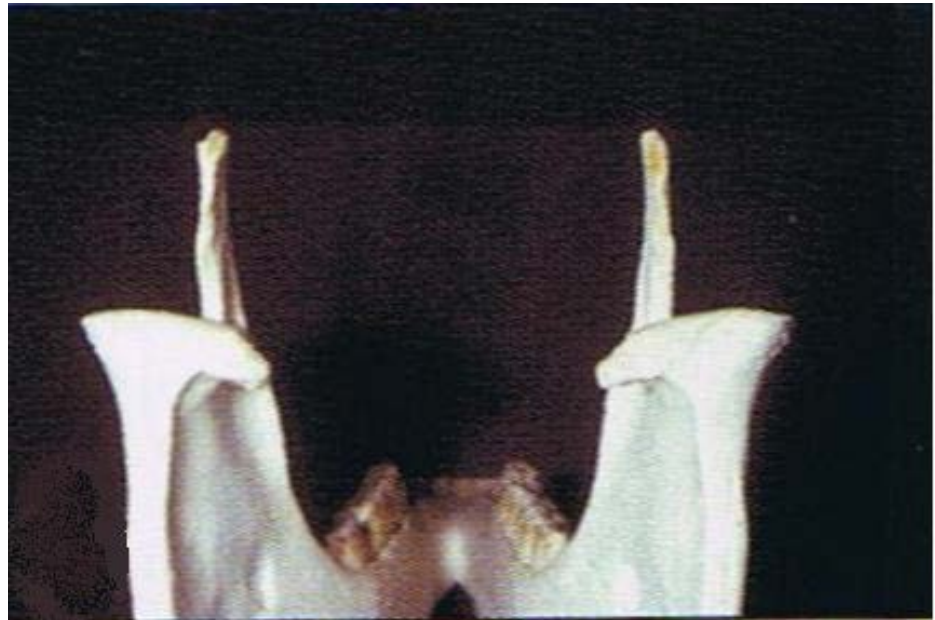


Power equipment may overheat the tooth by just a few degrees and crystallization of the surface may occur, making the surface slick and preventing proper chewing, which then may lead in the long run to digestive problems like colic, ulcers, etc. Over heating of the teeth also can damage the pulp chambers of the tooth which leads to decreased longevity of the teeth and the horse.



The angle of the molar arcade is directly opposite the angle of the TMJ, which provides the horse with guidance for the jaw to maintain balanced wear of the teeth.

Some methods of dentistry only remove points. Doing only this actually decreases the natural angle that all horses need to have. That alone decreases the ability for balanced wear.



Realigning teeth from a high head position is a misleading view of how the teeth should meet in a functional position for the horse. With the head up the jaw naturally slides back changing the alignment of the contact surfaces. When the situation is left this way, once the horse puts his head down to eat, the teeth meet in a completely different position and contact as the jaw slides forward while grazing or eating from the ground. This is not beneficial to the horse in keeping a balanced mouth.



The idea of adjusting the molars before anything is done to the incisors is starting back to front instead of front to back. The front teeth are the farthest point from the TMJ, which allows movement of the jaw. The smallest imbalance or restriction of movement at the front then predetermines imbalances which will be created on the molar surfaces.



If the front teeth are not balanced and a speculum is placed in the mouth between the incisors it will appear that the molars are more imbalanced than they actually are. This happens because the speculum is level unto itself.



So if the incisor balance is skewed this is transferred to the molars by twisting the jaw, creating a skewed view of the molars. If the molars are then balanced in this manner, after the speculum is removed, the horse is left with a very unbalanced mouth.



Improper dental care may result in an unstable mouth, TMJ issues, setting up compensation for the horse's entire body, creating a host of other issues.



**This presentation was created to educate
by
Jerry Schmidt, Balanced Equine Services
and
Claudia Garner, Equine Soundness**

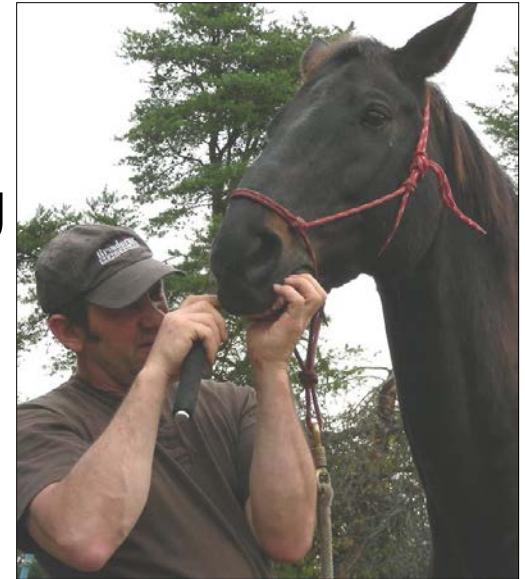
**For more information about Jerry Schmidt and his
philosophy about Equine Dental Care, please view
the following slides. He can be contacted through
www.equinesoundness.com**

Bio

Growing up in Washington State on a family farm working with hundreds of cows every day has taught me patience in dealing with animals.



Exposure to natural horsemanship methods and how that effected the way horses react to us was an easy step. I soon became involved in hoof care, learning about the importance of balance and biomechanics, while leaving the horses sound. While taking care of the hooves of about 100 horses, I also became interested in the teaching aspect of barefoot hoof care and became an instructor in 2005. Looking for better ways to deal with horse's dental problems after having been exposed to some "conventional" dental care for some of the 60 horses housed at our own farm, I was looking for a better way to deal with the dental aspect of horsemanship.





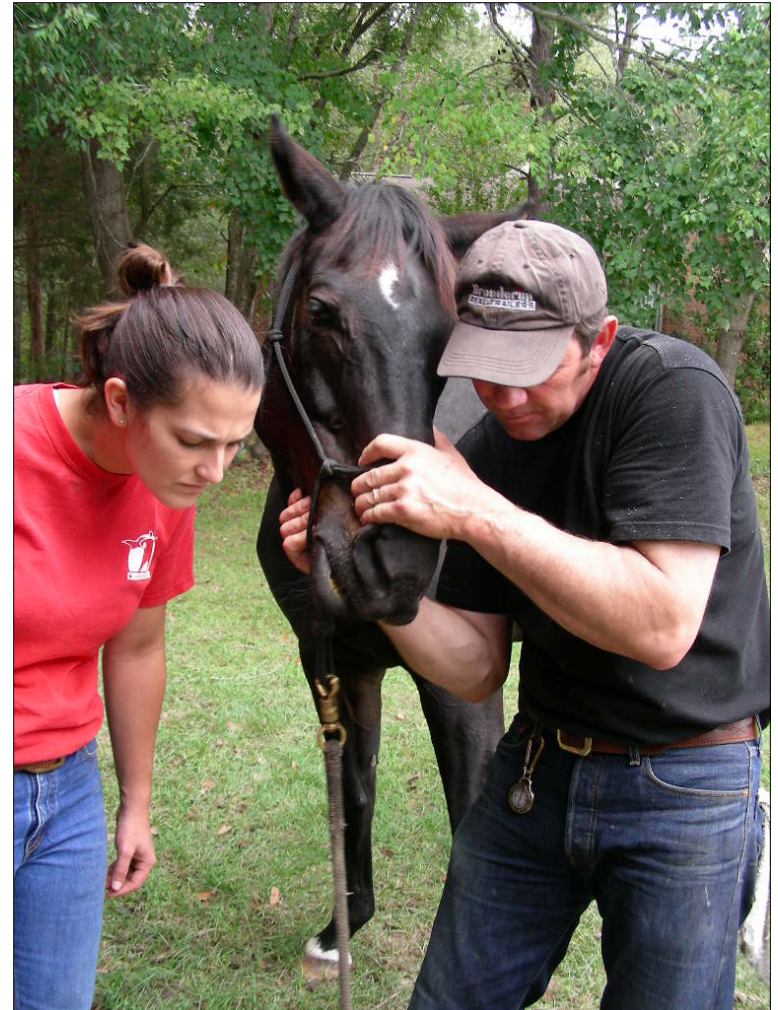
I met Spencer LaFlure and after some long conversation enrolled in his Advanced Whole Horse Dentistry Learning Center.

The class was focused on showing everyone how little you can do while adjusting teeth to produce an effective change for the horses.

Aligning and balancing a horse's mouth is not only important for digestion and nutrient uptake, but has an undeniable effect on the balance of the entire body of the horse. Working within their particular symmetries or asymmetries is of utmost importance.

The Balanced Equine Dentistry Paradigm

Basic to advanced dentistry concepts are shared with the owner, based on the idea of working on incisors first with angles adjusted over time. Educating owners about how their horse's mouth should function can help them look for proper function before calling someone out for the horse.



The horse is allowed to position his head low to the ground in a natural position during the procedure. This allows for a neurological release by balancing the mouth in the horse's natural low head position as close to their grazing position as possible.





Hand held instruments only are used. They fit the horse, are less disturbing and lessen the possibility of soft tissue damage. Guiding the instrument onto the individual teeth, with the other hand is a more accurate way to work. In reality not all the teeth need the same amount of adjustment. Only the areas that are inconsistent with proper wear need to be adjusted.

Excellent handling skills will keep the horse calm and relaxed. This gives the horse the ability to be involved with what is happening in his mouth, which also creates a calming effect for them. Having their friends around doesn't hurt either.



Maximize surface to surface contact of the incisors and the molar arcades.



Increase range of motion to the jaw to maximize the wearing surface of the teeth, restoring the ability of the horse to shear and masticate his food for better digestion. As a result the horse will be free to get lateral and vertical flexion without resistance.





With detailed knowledge of the horse's teeth and biomechanics of the mouth you can achieve maximum results for the horse without excessive floating. This is especially important in the older horse that has a very slow eruption rate of the teeth compared to a young horse which erupts much faster. Adjusting only what is necessary in a horse as they age will leave them with more tooth as they age.



Observe and communicate to the owner how pathologies in the mouth relate to the horse's body. The teeth can effect how they move in their body. As much as a long term compensation in their body directly effects how they wear their teeth.



Following dental treatment the horse owner is encouraged to share his or her observations.

Follow up exams and/or treatment are scheduled in appropriate intervals based on age and the kind of wear that is occurring. If they are maintaining well over a year, the interval can be extended with no ill effects for the horse.