

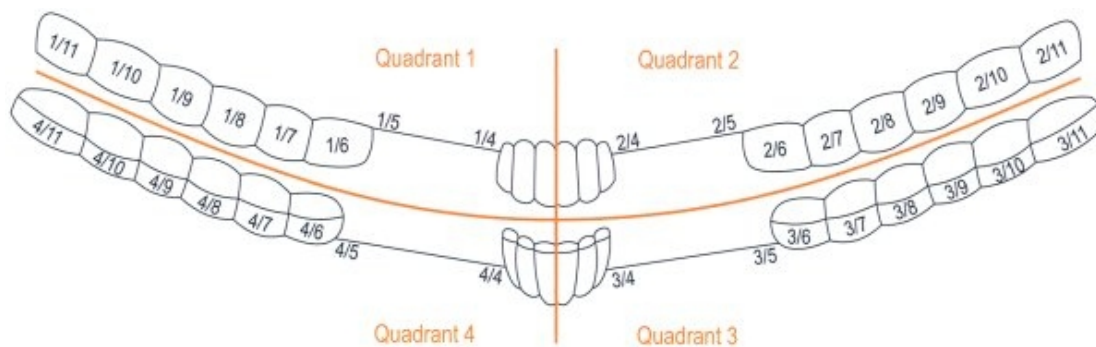
# Some basic dentistry information to help ensure a healthier, happier horse

## What happens in your horses' mouth?

Many people, during the course of horse ownership experience problems which eventually become attributed to the horses teeth. However, it is not always easy to pinpoint a dental problem, because most of us, as owners, have very little knowledge about the horse's mouth. Often we see the 12 teeth right at the front but after that it's all a bit of a mystery.

## The Equine Tooth Numbering System

Horses, in fact, can have up to 44 teeth. For dentistry purposes, a quadrant numbering system was introduced to make it easy to identify those teeth. On the chart you will see the incisors are at positions 1, 2 and 3. The canine teeth are at position 4 and wolf teeth, if they have them they are at position 5. The large grinding teeth are at positions 6 to 11: 6 to 8 being pre-molars and 9 to 11 being molars.



Ideally, your dentist will not need to perform involved dentistry on your horse unless it has a serious dental issue, usually caused by conformation problems or by an accident. The majority of dental work on horses should be maintenance work, just ensuring that the mouth is balanced to allow proper chewing of food.

## The Equine Eating Action

When a horse eats, they nip the grass or pull hay from their nets with their incisors. The food is then moved backwards to the molars. The food is rolled during the chewing action and moved backwards along the molar arcade whilst being chewed. If the horse's mouth is balanced and working correctly then the food particles should end up somewhere in the region of 3mm in length. If this chewing action happens as it should, the horse will gain the optimum benefits from the food. If the mouth has become unbalanced, i.e. the grinding of the molars is not as it should be, the food will not be broken down properly and the horse could begin to lose condition. In more severe cases improperly chewed food can lead to stomach conditions like colic.

## The Incisors

The incisors do not usually need attention as a rule. If the dentist ensures that the molars meet as they should, then the incisors will naturally come together. However, if the work on the molars has to be more extreme then the incisors may need to be reduced in order to ensure that they are not holding the molars apart. Sometimes you may notice that your horse has developed small hooks on the number three incisors. As the chewing action of the horse is a sideways chewing action, the hooks could stop the chewing action from happening properly, which would mean that the food would not be broken down as it should be. These hooks can be addressed very easily as shown below.



### **The Pre-Molars and the Molars (also known as the cheek teeth)**

Also, as with humans, no horse has a perfectly symmetrical mouth. This means that when the top molars move across the bottom molars (horses have a sideways grinding action), one set of molars will be forward of the other set. Therefore, if the top molars were more forward than the bottom molars, the front of the top molars and the back of the bottom molars would not be getting worn down. The longer this situation is left unattended, the worse it becomes. You may notice your horse spilling food when eating (known as quidding), headshaking, avoiding contact with the bit or other tack, possibly even avoiding pressure with the head collar. They may carry themselves differently to avoid the painful contact which could be mistaken for a back problem or lameness. In extreme cases the unopposed teeth can become long enough to cut into the opposite gum. At this stage, more extreme dentistry would be required, probably involving sedation and power tools. This can easily be avoided with regular maintenance from the dentist.



*Huge hooks on the upper 6 pre-molars caused because there is no occlusion from the lower 6 pre-molars. This is an extreme situation and would not have got to this extreme situation with regular visits from the dentist.*

### **The Wolf Tooth**

Another tooth that can cause problems for the horse is the wolf tooth. On the chart at the beginning of the article, you will see that the wolf teeth can appear at position 5 in any of the quadrants, although lower jaw wolf teeth are not as common as upper jaw



wolf teeth. The wolf tooth may have had a role for the horse thousands of years ago, but today they are surplus to requirements. They appear in the area of the mouth referred to as the bars of the mouth, the area between the front teeth and the molars where the bit resides. The location of the wolf teeth is what actually causes the problem. When they come into contact with the bit they can become quite sore. You may notice your horse trying to avoid contact with the bit or possibly just moving or holding its head in

an abnormal manner. Sometimes, the wolf tooth can be referred to as a blind wolf tooth. This means that the wolf tooth is there but has not erupted through the gum. This can still be uncomfortable for the horse. Some horses have been able to perform well without their wolf teeth being removed, but these are in the minority. It is a very quick procedure that is not traumatic for the horse and so they are usually removed as a standard procedure during a visit from the dentist.

It is very important that your dentist understands the workings of the horse's mouth. There have been many situations where a dentist has removed too much tooth from the molars. This causes the incisors at the front of the mouth to meet, but the molars at the back of the mouth do not touch. Once again, this means that the food will not be broken down properly and the horse will not get the goodness that it should.

### **Baby teeth and caps**

Young horses face one or two extra problems. Apart from the molars at positions 9 to 11, all the other teeth are deciduous. This is the equivalent to "baby teeth" in humans. These teeth will be pushed out when the adult tooth comes through. You may hear these referred to as caps.



*On the left you can see a cap on top of the permanent tooth and on the right you can see a couple of caps that have been removed. Notice the long "table legs" that secure the cap onto the tooth. When these caps come loose these "table legs" can irritate the horse by wiggling into the gum.*

Often the caps will work free when the horse is eating but sometimes they will stay on the tooth and being loose will irritate and can become quite painful. If the caps are incisor caps then they can also catch against the hay net. Your dentist should see this on their regular visit and either remove them (if they are ready to be removed) or advise you to monitor the situation and to call them if you notice any problems with your horses eating or behaviour.

It is important for your horse's wellbeing as well as your enjoyment as a rider that your horse gets a regular visit from the dentist. These would usually be approximately every six months but your dentist would advise you if there were any issues and more regular checks were needed.

### **Ensuring you get the right dentist and demonstrating competency**

It is also extremely important that you have the right dentist for your horse and in the UK we are lucky enough to have a standard that has been recognised by the Royal College of Veterinary Surgeons (RCVS) and the Department of Food and Rural Affairs (DEFRA). This standard is referred to as a Level 2, meaning that a dentist with this qualification is deemed to be exempt from the vet act which would normally cover these treatments. Therefore, Level 1 is defined as being basic diagnosis and rasping. Although your horse will more than likely only need basic diagnosis and rasping, there is no recognised examination for Level 1 work. Our own association, the WWAED, is the only association to examine all dentists at Level 1 prior to accepting them as a Full Member. If you ensure that your dentist holds a Level 2 qualification then you know that they have demonstrated the competency to work at a high enough level to pass the examination. Even if you use your vet for your horse's teeth, you should ensure that they have passed their Level 2 examination. Remember, as a vet they have many aspects of the horse to cover and cannot build up the experience that a full-time dentist has. There are only a couple of days allocated on equine teeth as part of vet training, and so more vets are choosing to take the Level 2 exam to demonstrate that they are proficient.

There is another major benefit for all horses that can be brought about by you the owner. If you insist on using a Level 2 qualified dentist for your horse's teeth, it will encourage all individuals that wish to practise dentistry to obtain the qualification. This will ensure that the standard of equine dentistry as a whole improves and that the individuals that are not capable of performing at the required level will disappear.

Remember, regular visits from the dentist will ensure a less stressful time for your horse at each visit and regular inspections will make sure that major problems can not occur. Also, by choosing a properly qualified dentist you are helping to raise the standards for equine care.

Steve Goode

President  
The WorldWide Association of Equine Dentistry (WWAED)

More information on the things contained in this article can be found at: [www.wwaed.org](http://www.wwaed.org)