



**Massey University**

# Veterinary Teaching Hospital

## TEETH

Your horse's teeth are very important. The incisor teeth in the front of the mouth allow him to bite food so that with the help of his tongue it can be brought into the mouth (prehension) to be chewed by the premolar and molar (cheek) teeth to prepare the food for swallowing. Dental problems can cause horses considerable discomfort and illness. Dental pain may put a horse off his food and he may lose weight and not perform well. He may not want to exercise, refuse to accept the bit, and his general health and well-being may suffer. Being herbivores, horses continue to wear away their teeth throughout their lives and they require regular routine examinations and attention to prevent problems from occurring. Horses' teeth change their shape and appearance throughout their lives and this helps us to assess their age.

### **Incisor teeth**

When a foal is born it will usually have no incisor teeth or the central incisors will have just cut through the gums. By the time the foal is a few weeks old, it will have six temporary (deciduous or 'milk') incisor teeth in each of the upper and lower jaws.

At approximately 2½ years of age the central temporary incisor teeth are shed and the permanent teeth appear. The permanent lateral incisors come through at approximately 3½ years of age and the permanent corner incisors at approximately 4½ years of age. Therefore, horses can be 'aged' by the appearance of their teeth between 2 and 5 years with reasonable accuracy. After this time, ageing horses by dentition becomes less accurate. By 5 years the corner incisors are in wear on their outer surface and by 6 years the whole of the corner incisors' surfaces are in wear. At this stage, the central incisors have been in wear for several years. Their infundibulum is shallow and their dental stars should have just started to appear. By 8 years the dental star can be seen in all of the incisors. In many horses a hook appears at the back edge of the lateral incisor teeth at 7 years but this has been worn away by the time the horse is 8 years old. Beyond the age of 8 years the incisor teeth continue to wear and their shape and appearance alters so that they become gradually less oval and more triangular, and they form a more acute angle with respect to one another at their biting (occlusal) surfaces.

### **Canine teeth**

The canine teeth usually only appear in colts and geldings and erupt at approximately 5 years of age. They rarely cause problems unless they become broken.

### **Premolar and molar (cheek) teeth**

The first cheek tooth in the upper jaw is called the 'wolf' tooth and this may or may not be present in your horse. The second, third and fourth cheek teeth are also called premolars. The deciduous or baby premolars are present from about 2 weeks of age. They are shed at approximately 2½, 3 and 4 years of age. The back three cheek teeth in each jaw are true molars and these come through in their adult form at approximately 9 months, 2 years and 3 years of age.

### **Care of the teeth**

It is rarely necessary to do anything to the teeth of foals or yearlings, unless they injure themselves, when it is sometimes necessary to remove damaged teeth. In yearlings which are being prepared for sale or are being broken in, it may be necessary to lightly rasp their teeth just to remove any enamel points which may be forming and may interfere with bit mouthing. During the time that the milk teeth are being shed (2-5 years) it is often necessary to remove loose teeth and premolar caps, which might otherwise become partially dislodged, twist and cause

damage to the tongue or cheek. Very often, a young horse with mouth discomfort or excessive salivation will be found to have a loose or displaced premolar cap which needs removing.

Horses from the age of two upwards should have their teeth checked at least once a year by your veterinary surgeon or an equine dentist that he or she approves. This examination is for retained premolar caps, broken teeth and the existence of hooks, sharp points or edges which may cause damage to the inside of the mouth or tongue or interfere with the chewing process.

The horse chews with a somewhat side-to-side movement and the upper arcades of teeth are slightly wider than the lower arcades. The cheek teeth therefore wear in such a way that sharp points or edges form on the outside or gum surface of the upper teeth and the inside (tongue) side of the lower teeth. These sharp points or edges must be rasped smooth. If allowed to get too large or sharp, these points or edges can damage the soft tissues of the mouth, causing painful cuts and ulcers. Hooks most commonly form on the front edge of the upper first premolars and the back edge of the lower last molars. These hooks can become very large and very sharp, particularly in horses which are 'parrot' mouthed ('overshot'). Less commonly, horses which are 'undershot' will develop similar hooks on the front edge of the lower first premolars and the back edge of the upper last molars. If large enough, these hooks result in abnormal wear of the adjacent teeth and can penetrate the gum and even adjacent jaw bone then causing severe damage and infection. Developing hooks should be rasped down and large hooks may need removal with a dental chisel.

### **What other problems can occur?**

Occasionally, a tooth will grow in an abnormal position. This can result in the formation of a diastema or gap between teeth or next to the misplaced tooth. Food material can collect in these places and a severe gingivitis (infection and inflammation of the gums) will develop. In chronic (long-term) cases, the infection can result in damage to the underlying bone. If the lower jaw is involved, an abscess may form within the bone. In the upper jaw these infections can enter the adjacent sinus, resulting in a foul smelling, nasal discharge. In these cases, the face and/or jaw often becomes swollen.

### **What other treatments may be necessary?**

Very simple conditions, such as enamel points, small hooks and surface irregularities can often be corrected with simple dental rasping. This procedure is usually performed in the standing un-sedated horse. A detailed examination of the teeth is made easier by the use of a mouth gag, such as a metal Hausmann's gag.

Occasionally it is possible to remove loose teeth or broken fragments in the standing sedated horse. For fractures where the tooth is not loose or where an abscess or large gap has formed, it is necessary for the horse to have a general anaesthetic. Removal of large cheek teeth usually requires specialised surgery to be performed through the adjacent sinus or lower edge or side of the lower jaw. When teeth are removed a defect is left behind and this is usually plugged with dental wax. This remains in place until the hole fills in with healthy granulation (healing) tissue.

If premolar or molar hooks or irregularities are large, more specialised equine dental equipment may be required, including electrical and large metal tooth cutting equipment. There is a risk of fracturing a tooth when using this equipment and it should be only undertaken by an experienced and properly qualified person.

### **What can I do to prevent serious tooth problems?**

Regular attention to your horse's teeth can help prevent the development of most of the problems discussed above. Healthy, well-maintained teeth will enable your horse to make most efficient use of the feed with which he is supplied and he will therefore thrive.

Nevertheless, tooth fractures can occur at any time, as a result of a kick or fall or biting on hard objects and there are certainly some tooth problems that go undetected until they develop more serious complications, such as sinus infection. If you are in any doubt about the health of your horse's mouth, you should ask your veterinary surgeon to examine him.