Why do teeth?

Most responsible horse owners understand the importance of regular dental care for their horses. Performance, comfort and well being are all dependant upon a properly functioning and comfortable set of teeth.

The teeth of a horse continue to grow during most of its life. The upper teeth are wider than the lower and when horses are not in the wild the teeth wear differently and the outside edges of the upper teeth and the inside edges of the lower teeth get very sharp. Other problems arise such as loose teeth, infected teeth and retained baby teeth.

Regular and prophylactic dental care ensures your horse's teeth are maintained in proper order. Prevention is the key to long lasting good health.

1) Riding comfort

Performance horses cannot concentrate on their work if their mouth is reacting with the bit or gear. If the teeth are sharp then pain avoidance behaviours such as head tossing, lugging, rearing, pulling hard, bolting, getting tongue over the bit, head tilting, not taking one lead etc. may result.

Wolf teeth, which are the first premolar teeth in horses, can also cause a problem. These teeth are not used for chewing and have no useful function and are best extracted in horses that are ridden. These must be removed with local anaesthetic to prevent pain to the horse and an elevator used to prevent the root of the tooth being snapped off. It is not acceptable to "smack" out wolf teeth with a hammer and chisel and in fact can cause harm. Also by removing wolf teeth, we create good access so that we can properly and carefully contour the first upper and lower cheek teeth to maximise comfort with the bit. This procedure is commonly known as doing a "bit seat".

2) <u>Economy of Feed</u>

No horse can properly digest and utilise its feed if its mouth hurts to chew.

Horse feed is very expensive and especially around Townsville where the grass is of poorer quality, if present at all, it is necessary to supplement horses with food. The bottom line is that if you take care of a horse's teeth you'll allow the horse to take full advantage of the food given which can save money in feed. If you are supplementary feeding your horse the amount of money saved on feed bills alone will pay for yearly routine dental treatments. This is due to the increased efficiency of digestion. Basically they chew the food better so they digest it better, hence receiving more of the nutrients rather than passing straight through them.

3) Avoidance of impaction colics

If a horse can't bite or chew properly due to dental pain it won't break the grass down to an appropriate size for digestion. This is obvious if there are long stems (>1.3cms) in the faeces. This is particularly important here in north queensland where our tropical grasses are more fibrous and tougher to chew. With high fibre forage such as dried off grass or Rhodes grass hay, the potential for impaction colic is quite high. This can be magnified again if a situation arises where a horse is deprived water or becomes sick and consequently dehydrates.

This can be further complicated again in winter because old horses often have gum (gingival) disease which makes it make painful to drink cold water, making them susceptible to dehydration. Thus it is in winter that we see a spike in number of impaction colics, many of which require expensive surgical correction, due to a combination of factors including painful teeth, higher roughage in the diet and dehydration.

Old horses

Old horses need dental checks as much or more than any other age of horse. Advanced gum disease or periodontal disease is present in approximately 60 per cent of horses over 15 years of age. Periodontal disease feels like what we get when we have a piece of meat caught in our teeth for several days. This gum disease is painful, will lead to premature loss of teeth, and can potentially contribute to other health problems in other parts of the body. It is important to detect and treat it early in order to try to prevent it becoming irreversible. Periodontal disease may have signs such as spilling feed, packing feed in the cheeks, bad breath (halitosis), slow eating and drooling of frothy saliva when eating. Dental disease is a major cause of weight loss in old horses. But it is important to perform a clinical examination on a horse with weight loss, as other causes may be the problem. The old horse may be quiet to handle, but some times they are not so willing when it comes to looking in their mouths. Reasons for this are many and include; bad memories of prior stressful dental treatment, present painful conditions in the mouth and TMJ (jaw joint) disease. Once in the mouth, it is common to find dramatic pathology. The sad part is that most of this pathology would have been avoided if the horse had received good regular dental maintenance as a young horse. Performing dentals on geriatric horses requires a conservative approach. It is important to remove all the sharp enamel points, and reduce tall teeth if they are rubbing on opposing gums etc. But some conditions such as waves may not be able to be corrected, for fear of taking the horses teeth out of contact forever - rendering it unable to chew properly. Obviously this is a disaster for an old horse.

Young horses

It is in young horses that you can make the biggest difference in dentistry and set the horse up with good teeth for life. Young horses especially need to be done prior to being broken in and have issues such as sharp enamel points, wolf teeth and loose baby caps addressed. At this age, the horse is learning and pain can easily lead to resistance to training. This can result in bad behaviour such as head tossing, getting the tongue over the bit, lugging, chewing the bit, rearing, bolting and even bucking.

In horses, the most important age for its mouth is the teething period, where it changes from primary (deciduous or baby) dentition to secondary (permanent or adult) teeth. Between the age of 2 and 1/2 and 4and 1/2 years of age, the horse will shed 24 baby teeth - both premolars (cheek) and incisor (front) teeth. These teeth are replaced by adult teeth. When the baby teeth have been worn away and remain on top of the erupting adult teeth as a thin shell like structure, this is commonly called a "cap". Sometimes only a portion of these caps will come away, leaving a retained portion behind. This wedged piece of dead tooth will trap food, and cause inflammation and infection to the underlying gums (gingivitis and periodontal disease). Periodontal disease has been reported to occur in 40 % of horses between 2 and 5 years of age. Luckily most of this is reversible when the retained caps are removed. If not removed or dislodged, they continue to cause discomfort to the horse - leading to erratic behaviour. The cheek teeth premolars are particularly predisposed to retaining cap fragments. It is essential that a full mouth speculum is used to open the horse's mouth, and identify these by feeling and/or looking. It seems a common thought that all baby teeth (caps) will fall out when the adult tooth erupts up through the gum. Some do so without problems, however many caps need to be removed, when ready, to avoid the previously mentioned problems. Young horses also get sharper points more quickly than older horses thus regular checks every 6 months are essential for horses younger than 5 years old - especially if being prepared for

Why vets should do the dental

competition.

Equine dental care is much more than just floating. It is about the complete dental and oral evaluation and treatment. This includes manually and visually examining the molar and the incisor arcades, assessing gingival health and checking for the presence of periodontal disease and decay problems that are both painful to the horse and lead to tooth loss. Further investigation can be undertaken if necessary such as close examination with a dental mirror of the space between the teeth and the teeth themselves, xrays of teeth with suspect fractures or abscesses and biopsies of suspicious tissue.

Vets are able to properly examine your horse's mouth, diagnose problems and implement the correct treatment. Most have all the necessary equipment, including a powerfloat, and most importantly, are able to use sedation and analgesia whenever necessary, to ensure your horse experiences comfortable and pain-free treatment.

In all states in Australia, it is highly illegal for anyone other than a registered veterinarian to sedate a horse as part of their services. Only vets are trained and insured in case of any accident (to humans or horse) or adverse reaction to the drugs. Any public liability insurance could become null and void if an accident occurs during an illegal procedure.

In summary, regular dental care is vital for horses of all ages. By maintaining the teeth, the horse is kept in optimal condition and remains comfortable with the bit in its mouth. They are also more economical to feed and have reduced risk of certain medical conditions such as colic.