

The Whole Tooth

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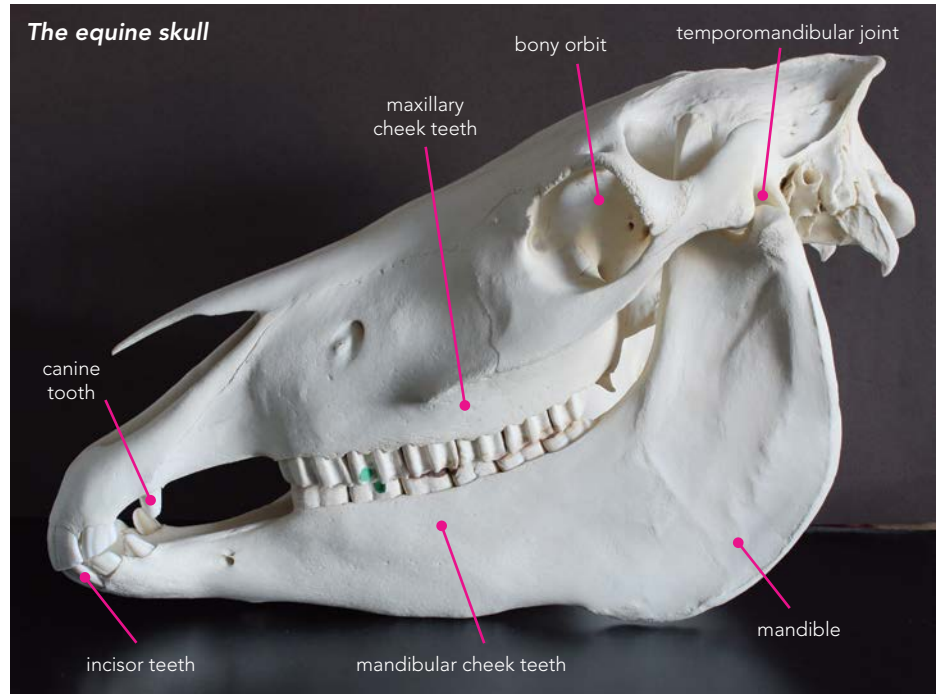
Paula qualified in the UK in 1993 and has been an equine veterinarian since then. She completed an internship at Rossdale and Partners in Newmarket, UK and has subsequently

worked in equine hospitals both in the UK and Australia. Paula is currently an equine practitioner at WestVETS Animal Hospitals in Queensland.

Her clinical interests include diagnostic imaging, the investigation and management of musculoskeletal issues in the equine athlete, the equine foot, neonatology and internal medicine.

Regular dental examination and treatment is an extremely important routine necessity when you own a horse, be it a retired paddock horse or an elite athlete. Equine dentistry has really advanced in the last two decades. In the past, some of the dental procedures and equipment used were barbaric and would be considered unethical today. It is a field that has rapidly developed as anatomical, physiological and pathological knowledge has expanded as a result of research, instrumentation, and tools have improved, and sedation and analgesic medications have become refined. There are also advanced training programmes for equine veterinarians to increase their skills and knowledge. In Australia, over 1,000 equine veterinarians have done post-graduate training in equine dentistry, and many only perform equine dentistry. Here, we are going to have a look at why regular dentistry is so important and what it involves.

The equine skull



Equine dental anatomy

The equine mouth has adapted as a result of the free-range trickle-feeding grazing habits of the horse. They prehend with their incisors at the front of the mouth, which grasp the feed, and the cheek teeth that line the sides of the mouth have roughened surfaces and grind the fibrous material before it is swallowed.

Horses have between 36 and 40 teeth. They have six upper and six lower incisors; then there is a gap (diastema) before the cheek teeth. Each arcade (left, right, upper and lower) has six teeth that are like bricks against each other with the roughened or ridged grinding surface – of these cheek teeth, 12 are premolars, and 12 are molars. The extras are wolf teeth and/or canines if they are present.

Some of the upper cheek teeth have their roots within the sinuses. The jaws are uneven, with the top jaw being about 30% wider than the lower jaw, with the chewing surface of the teeth being tilted at 12–15 degrees. This allows for the circular chewing action of the horse, which grinds the feed. Take a minute and watch how your horse chews when you hand them hay and see how it works!

Equine teeth are hypsodont (meaning high crown) and erupt continuously until

they are worn down to the root. Teeth can last 20–30 years if looked after properly.

Why does my horse need regular dental examinations?

Because of the difference in the width of the jaws and the fact that the domesticated horse is not always continuously grazing, sharp points can develop on the sides of the teeth – if left without attention, then ulceration can occur on the inside of the cheeks. This can lead to pain in the mouth when eating and when being ridden. If they are not treated, then more serious dental issues can occur (e.g. periodontal disease, fractured teeth, malocclusions, tooth root abscesses sinus issues).

Dentistry is not just about teeth; dentistry is about total mouth care. Gum and periodontal disease is painful and is one of the most common conditions affecting mammals, including horses. Tumours, infections, feed impactions and foreign bodies are found regularly during proper dental examinations.

The aim of dentistry is to maximise comfort when eating or being ridden and to recognise issues before they become a serious problem. Regular and appropriate dentistry also prolongs tooth life.

What are the signs my horse has a dental issue?

1 RIDDEN ISSUES

- Head shaking/tossing
- Poor response to pressure on the reins
- Lugging to one side
- Head tilting
- Rearing
- Bucking
- Working behind the bit
- Poor or hard collection
- Refusal to maintain frame or vertical head carriage
- Refusal to take one lead or being slow in transitions
- Resistance to turning in one direction
- Pulling hard
- Refusing to accept bridling
- Getting the tongue over the bit or sticking the tongue out
- Slightly opening mouth
- Chewing the bit
- Tail swishing

2 ISSUES WITH EATING

- Spilling feed
- Excessive salivation
- Quidding
- Slow eating
- Frequent washing of mouth in water
- Aggression or anxiety during eating
- Eating hay but leaving grain
- Faeces with large numbers of long fibres or undigested grains
- Weight loss

Why use an equine veterinary dentist?

Only a veterinarian has the medical, anatomical and physiological knowledge to diagnose and treat dental problems and to understand the effects that dental problems can have on the overall health of your horse. Veterinarians are the only people who can legally sedate your horse, provide adequate pain relief during potentially painful procedures (such as extraction) and to treat any concurrent medical conditions that may be affecting your horse. Veterinarians are able to assess the overall health of your horse before they are sedated or medicated to ensure that the medications given are the safest and most appropriate for your horse.



The use of a gag mirror to evaluate a mouth. Photo: Dr Shaan Mocke.

"The aim of dentistry is to maximise comfort when eating or being ridden and to recognise issues before they become a serious problem."



Large hooks. Photo: Dr Shaan Mocke.



A mouthful of pathology. Photo: Dr Shaan Mocke.

A gag or mouth speculum is placed on the horse, and the mouth opened. The inside of the mouth can then be examined visually with a powerful light and by palpation, feeling and looking for any abnormalities and a dental mirror used to check the surfaces of the teeth.

All findings are recorded on a dental chart, and if further diagnostic tests are required, such as x-rays or blood tests, then your veterinarian can also perform these.

How often should my horse have a dental examination?

As a minimum, all horses should receive an annual dental examination.

Young horses may require more frequent dental examinations, as there are many dental changes occurring during the first 4-5 years of a horse's life. One common problem seen in young horses is retained incisors or premolar caps, where the deciduous teeth fail to fall out when the permanent teeth are ready to replace them. The impaction of erupting incisors can also be a problem. Eruption bumps or cysts can cause discomfort even if the teeth have been done regularly, particularly if the noseband of the halter or bridle is fitted incorrectly. Incompletely erupted or unerupted wolf teeth are also seen occasionally. Younger horses, therefore, benefit from 6 monthly dentals.

Older or geriatric horses (20 years of age or older) have an increased risk of periodontal disease, tooth attrition and loss often complicated by medical conditions such as Cushing's disease. Six monthly examinations are often required to keep the teeth of older horses functioning correctly.

If complex problems are found in any horse during the examination, some may require multiple treatments to correct the abnormality without damaging the teeth and more frequent visits.

Your veterinarian will be best placed to advise you on the frequency of dental examinations for your horse based on their individual needs.

Summary

Regular dental examination is a crucial necessity for all horses. It is important that the mouth of the horse is healthy and pain-free to avoid issues under saddle and when eating. Annual dental checkups with an equine veterinary dentist maximise oral comfort and allow issues to be recognised and treated promptly. 🐾



Dr Hayley preparing a horse for a dental procedure.

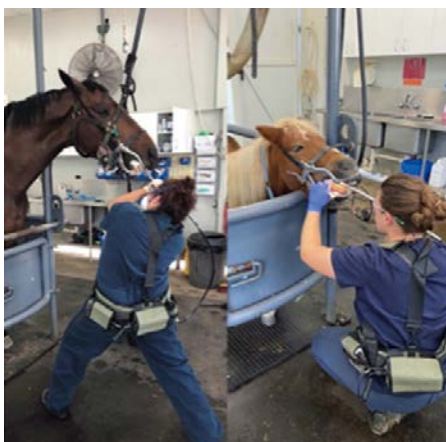
If your veterinarian doesn't perform dentistry, there are plenty across Australia that do – these veterinarians have undergone further postgraduate training in dentistry and keep abreast of new developments. A veterinarian also understands the importance of biosecurity and is trained in how to prevent the spread of infectious diseases between horses and properties.

What happens during a dental examination?

The equine veterinary dentist will perform a full clinical exam to ensure there are no other health problems present, so it is a good time for horses to receive their yearly check-up and vaccinations (plus maybe Hendra vaccination).

The veterinarian will then perform a thorough exam of the head, including examination of the chewing muscles, bones of the skull, salivary glands and lymph nodes, as well as the range of jaw movement. The temporomandibular joints are palpated for symmetry and pain. The nostrils are also checked for discharge, and the forehead may be tapped to check for fluid in the sinuses.

To complete a thorough oral exam, sedation is essential. It allows all structures to be examined properly and allows the horse (and owners!) to relax. It also provides pain relief if painful procedures, such as extractions, are performed.



Vet dentists at work - every size!