

# THE WHOLE TOOTH



Welcome to the first issue of the Pet Dental Services Newsletter "The Whole Tooth". I hope you find the articles informative and useful. If you have any suggestions for topics you would like see covered in future issues, please contact me via email - [enquiries@petdentalservices.com.au](mailto:enquiries@petdentalservices.com.au)

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## What Can I Do for a Broken Tooth?

Tooth fractures are not an uncommon injury and owners are becoming more willing to try and preserve teeth rather than extract them

If a patient presents soon after a tooth fracture occurs, there are a number of treatment options available.

*Vital pulpotomy* - technically this procedure is a partial coronal pulpectomy and direct pulp capping. In most cases, if seen within a few days of the fracture occurring, the pulp will be still be alive and the tooth can potentially be saved. Radiographs are taken to check for root fractures. A vital pulpotomy involves removal of some of the inflamed pulp, then dressing the remaining pulp with calcium hydroxide. This stimulates the formation of a dentinal bridge at the site, sealing the pulp chamber. The site is then filled and restored to permanently seal and protect the pulp. This allows

immature teeth to continue to develop and the root apex to close. The tooth is not restored to it's original height as the restoration will not withstand the forces in the mouth (unless a full crown is manufactured). The tooth should be radiographed every 6-9 months for 2 years to monitor dental bridge formation and check for root pathology.

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Fractured right maxillary canine tooth

### *Did you know.....*

Over 80% of dogs and cats have clinical signs of dental disease by 3 years of age.

Human dental plaque contains over 300 species of bacteria.

Elephant tusks are actually a modified tooth, the maxillary 2nd incisor.

### *Are you interested in veterinary dentistry?*

Why not join the Australian Veterinary Dental Society, a special interest group of the AVA. See the AVDS website [www.petdental.com.au](http://www.petdental.com.au) for more information.

## Feline Odontoclastic Resorptive Lesions

Also known as neck lesions, cervical line lesions etc, these are painful, insidious lesions that erode through the enamel, dentin then into the pulp. Chronic lesions may obliterate the entire crown and affected teeth often have resorbed and/or ankylosed roots.

In the past, treatment has been performed in an attempt to restore affected teeth. Unfortunately this usually fails as the odontoclastic cells remain active and destruction continues under the restoration.

The treatment of choice is tooth extraction. Intra-oral x-rays are recommended to assess root ankylosis and resorption.



Resorptive lesions to the maxillary 3rd and 4th premolars and mandibular 1st molar

## Pet Dental Services Newsletter

### "Focusing on Pet Oral Health"

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Pet Dental Services provides a fully mobile small animal dentistry referral service to Perth veterinary clinics and hospitals. Why mobile? So clinics can provide a greater range of services 'in-house', without the need for new equipment and training. Clients and patients have the convenience and comfort of remaining at their regular clinic, with people they know and trust!

For more information on the range of services available, advice or general enquires, please contact Dr Lian Yeap, Pet Dental Services, 0419 905 008 or visit my website

[www.petdentalservices.com.au](http://www.petdentalservices.com.au)



## What Can I Do For a Broken Tooth - continued

If the procedure fails, root canal treatment or extraction is required.

Fractures older than 2 weeks in immature animals or older than 48 hours in animals over 2 years require either root canal treatment or extraction.

Vital pulpotomy is most successful (about 80%) in immature teeth of young animals from 18 months to 2 years, within 2 weeks of the fracture occurring. In animals over 18 months, treatment should be performed within 48 hours of the fracture occurring. After this time, pulp inflammation may be too severe for treatment to be successful.

**Root Canal Therapy** – in cases of chronic tooth fracture, the pulp is usually irreversibly inflamed or necrotic. The aim of root canal therapy is to completely remove the pulp and any infected tissue from the pulp chamber, to disinfect the pulp chamber then fill it with an inert, antibacterial material, seal the apex then close the fracture or access site. Although the tooth is no longer alive, it is free of infection and should remain stable and functional.

While root canal therapy can be performed on any tooth, it is generally most successful in anterior teeth such as incisors or canines in dogs and canine teeth in cats. The upper carnassial tooth (upper 4<sup>th</sup> premolar) is a tooth that is frequently fractured due to the large forces applied to it. As this is a 3 root tooth, successful cleaning, sterilisation and filling can be difficult. If the chewing behaviour that caused the fracture (ie bones, rocks) persists, the treatment often fails, necessitating extraction.

**Immature teeth** - (ie root length and apex not fully developed) with necrotic pulps usually require an intermediate treatment prior to root canal therapy. After the necrotic pulp tissue is removed, sterile calcium hydroxide is placed into the pulp chamber to stimulate

closure of the root apex, which can take 6-24 months. Ideally the tooth should be re-radiographed every 3 months to check for closure of the apex or complications eg infection. The calcium hydroxide dressing may need to be changed every 4-8 months (as fresh dressing provide more stimulus) until the apex is closed. Once apical closure is achieved, the temporary dressing is removed and standard root canal therapy can be performed.

**Extraction** - if owners do not wish to save a fractured tooth then extraction is recommended. If left intact, the pulp will eventually die and become infected, resulting in chronic inflammation, infection and pain.



Right maxillary canine tooth post-treatment

### AVA Annual Conference

May 13-18 2007 Melbourne

Want to learn more about veterinary dentistry? The Australian Veterinary Dental Society is once again running a full day wet lab designed to improve your dental knowledge and techniques and give you a chance to practice them. An advanced course will also be held along with 1 day of lectures. See the AVA website for details [www.ava.com.au](http://www.ava.com.au)

If you have any suggestions or comments, please contact me via email - [enquiries@petdentalservices.com.au](mailto:enquiries@petdentalservices.com.au)