AGGIE ANIMAL DENTAL CENTER

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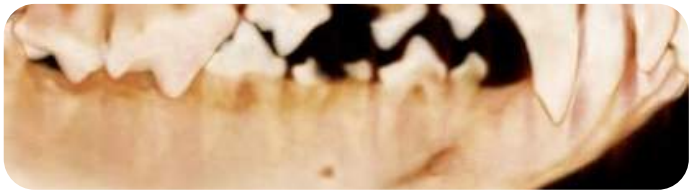
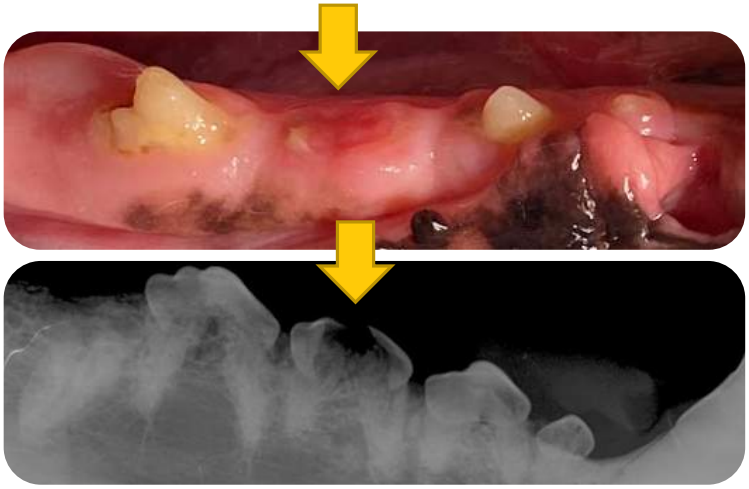
Tooth Resorption

What is tooth resorption?

- We don't know what causes it, but tooth resorption occurs when cells that are normally present to destroy deciduous tooth roots (*odontoclasts*) become reactivated in a mature animal and destroy a permanent tooth or teeth.

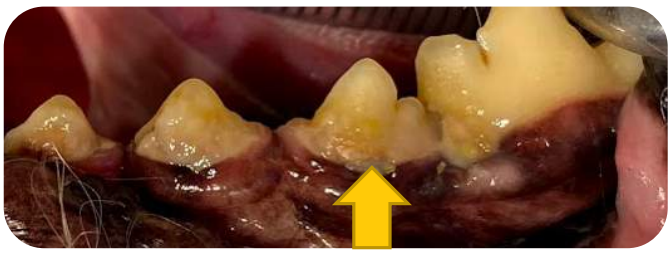


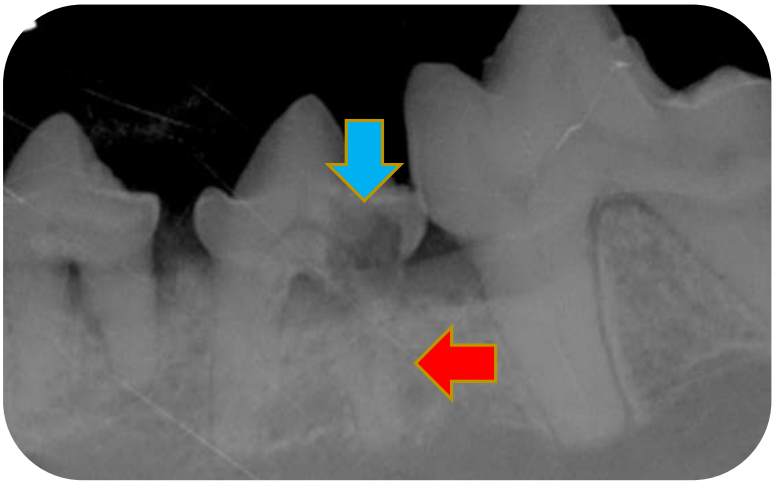


Tooth Resorption in Dogs

- Tooth resorption is not well understood, but results from the dog's own cells slowly destroying the tooth. In some cases, the roots are replaced by bone.
- There are many different terms for describing tooth resorption. The description may include where the resorption is located (crown, root, or both), if the resorption is internal or external, and if the root is being replaced by bone.
- Resorption of the crown of the tooth exposes the nerves inside the tooth (the pulp) and is usually painful.
- Resorption that is limited to the roots and not exposed to the oral cavity does not seem to be painful, and therefore does not always require extraction.
    - **There is no treatment to save teeth or preventative measures that can be used for teeth with resorption.**
    - If resorption affects the crown, whether it be internal or external, it may be painful, and extraction is recommended.
        - Internal resorption of the crown also weakens the tooth and can lead to tooth fracture that exposes the pulp, which is usually very painful.
    - If most of the tooth root structure has been replaced by bone, crown amputation may be performed.

- Combinations of "types" of resorption are common.
    - This radiograph shows **replacement root resorption** and internal crown resorption at the left lower 4th premolar tooth, which appears normal from the outside.

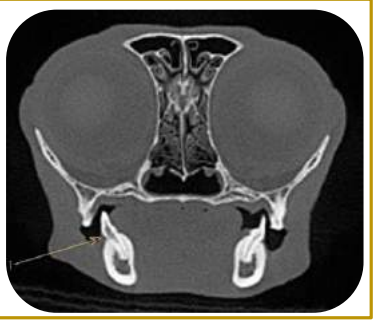




Tooth Resorption in Cats (FORL)

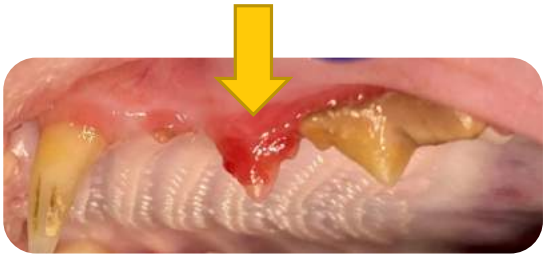
- Tooth resorption (formerly known as feline odontoclastic resorptive lesions or FORL) affects 30-50% of all domestic cats.
- Like human caries lesions, this may appear to be a "cavity" within the tooth; however, unlike in people, treatment by trying to fill the cavity is always unsuccessful as it does not stop odontoclast activity.
- There are 2 types of resorption, but both will cause weakening of the structural integrity of the tooth, which can result in a dental fracture after minimal trauma (such as biting on a toy).
- **Tooth resorption that affects the crown of a tooth is painful**.

Close inspection reveals internal tooth resorption in the mandibular molar tooth on the left side of the picture compared to the right side of the picture.



Type 1

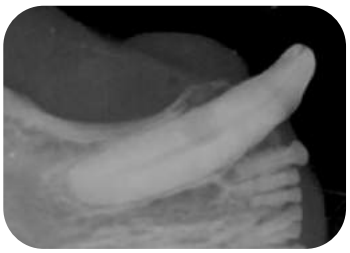
- In type 1 resorption, there may be a hole in the crown of the tooth, but the roots are intact and have not been replaced by bone.
- On examination of an awake patient, a tooth with type 1 tooth resorption may appear red and inflamed, and may have an actual visible hole in it. There is often inflamed gingiva growing up over the crown of the tooth.



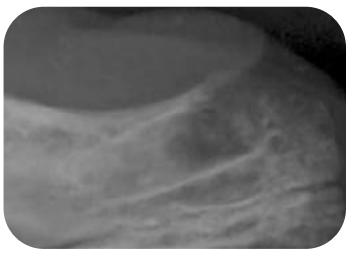
How it is treated

Extraction!

Before



After



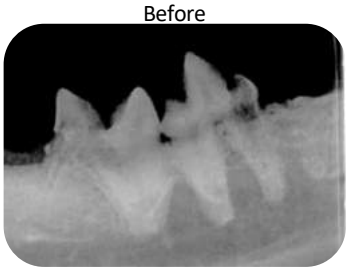
Type 2

- In type 2 resorption, roots are replaced by bone, and will eventually be indistinguishable from the surrounding bone.
- Since the resorption is happening below the gumline, there may be minimal signs on visual inspection.
- The teeth pictured (which are the same as the radiographs below) have very subtle discoloration on visual exam, but radiographs clearly show how much of the roots have been resorbed.

How it is treated

Extraction or Coronectomy (crown amputation)!

Before



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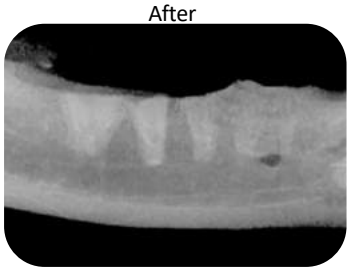

Like dogs, cats can have a combination of types of resorption, often referred to as type 3 tooth resorption. Treatment is still the same: extraction or coronectomy (crown amputation).