What happens when a tooth breaks?
When a healthy tooth fractures, the pulp can be exposed. Initially, the pulp will be pink or red, and it may bleed. This is an extremely painful time. Some pets may drool or not eat. Over time, the tooth becomes infected with bacteria and dies. At this time the tooth is no longer painful. Food debris, bacteria, and dirt will pack into the exposed pulp chamber. The infection will travel down into the root canal. This is like a “highway” for bacteria to get straight into the bone of the jaw and form an abscess, which is very painful. Sudden swelling of the face may be seen, or a draining tract may be found leading back to the infected root of the tooth. This may happen weeks to years after the injury.

My pet has a broken tooth—does it hurt?
It is difficult to assess oral pain in animals. We know that fractured teeth in humans are extremely painful. We must assume that animals feel the same pain. In the wild, showing weakness will cause animals to lose their status in a pack or make them vulnerable to predators. Therefore, nature has forced animals to hide their pain. It is up to us, their caretakers, to recognize their painful problems and help them. Many people whose pets have had broken teeth treated will describe that their beloved friend feels “years younger”. Taking away chronic pain can increase your pet’s quality of life!

My pet’s tooth is discolored. What happened, and is root canal therapy needed?
A discolored tooth is often pink, purple, grey, or brown. Most commonly this has occurred because of trauma to the tooth (running into a wall, chewing on rocks, etc.) 92% of discolored teeth are dead and filled with necrotic debris and often bacteria. This will fester similar to a splinter and form an abscess. This is painful and risks infection to other parts of the body.

What is a “root canal”?
The root canal is the hollow chamber inside the tooth which contains the blood supply and nerves to the tooth. When your dentist or veterinarian recommends a “root canal” this is a treatment to remove the diseased contents of the root canal chamber to prevent infection from entering the jaw through the tooth. Files are placed inside the chamber and are used to cleanse and shape the inside of the canal, removing the diseased tissues. Once the canal has been cleaned, it is sealed and a filling is placed.

Is a root canal really necessary?
In some cases, extraction of the tooth is an acceptable option. If the tooth is otherwise compromised, often with periodontal disease, then extraction may be necessary. However, root canal therapy is often recommended because extraction may cause trauma or significant pain.

Will my pet need a crown?
A tooth that has had a root canal procedure performed can be weakened and fragile. The placement of a metal crown may protect the tooth from further trauma. A metal crown is recommended to protect the tooth from further damage and minimize bacterial leakage.
Teeth Most Commonly Treated with Root Canal Therapy

**Upper canine teeth**: 2/3 of the tooth is buried in the bone of the jaw. Extraction may cause damage to the sinus cavity, and the upper lip might collapse in, causing the lower teeth to damage the lip.

**Lower canine teeth**: 2/3 of the tooth is buried in bone, taking up approximately 85% of the lower jaw. When it is removed, there is significant risk of jaw fracture and weakening of the lower jaw. These teeth are also important for keeping the tongue in place.

**Upper 4th premolar** ("upper carnassial teeth"): Important chewing tooth used for chewing food, bones, rawhides, etc. Although animals can eat without this tooth, extraction can risk damage to the eye, the brain, and the nerve and blood vessels going to the muzzle and other teeth.

**Lower 1st molar** ("lower carnassial tooth"): The counterpart to the upper carnassial tooth, a large portion of the tooth is also hidden within the bone. Extracting this tooth can cause jaw fracture.

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**About Dr. Bannon**

Kris Bannon, DVM, FAVD, DAVDC received her veterinary medical degree from Texas A&M University in 1998. She worked in a small animal hospital in Santa Fe, NM for ten years before starting the first veterinary practice in New Mexico dedicated to the oral health needs of our companion animals.

In 2008, she was the first veterinarian in New Mexico to earn the title Fellow of the Academy of Veterinary Dentistry (FAVD). She became a Diplomate of the American Veterinary Dental College (DAVDC) in 2010. Both certifications are earned after years of intensive training, followed by a rigorous application process and examination. As of 2010, there are only 93 Fellows of the AVD and 113 Diplomates of the AVDC worldwide. As a Diplomate of the AVDC, Dr. Bannon became the first and only board-certified veterinary dentist in the state of New Mexico!

She was elected to serve a five year term on the Board of Directors for the American Veterinary Dental Society in 2006. In her free time, Dr. Bannon enjoys volunteering with the Peter Emily International Veterinary Dental Foundation, using her advanced dental skills to benefit disadvantaged and captive wildlife in sanctuaries across the country. Dr. Bannon enjoys teaching other veterinarians about quality dental care, and lectures frequently within New Mexico and nationwide.

Dr. Bannon is very enthusiastic about dentistry, and wants to share with everyone the positive effects that good dental health and oral hygiene can have on the quality of life for our beloved furry friends. If you have any questions, please feel free to call, email, or just ask.

**Anesthesia and Peri-operative Support**

Anesthesia is required for a thorough dental examination and a safe treatment. There are always many concerns about anesthesia. However, a well-balanced anesthetic protocol can be safe and effective. Pre-anesthetic blood work will be performed, preferably by your regular veterinarian. Individual protocols are used to provide the safest experience possible. Monitoring is performed by a dedicated assistant recording blood oxygen levels, respiratory and heart rate, blood pressure, and body temperature. Local pain management is utilized to minimize any pain that your pet may feel.

Most dental procedures are performed on an outpatient basis. Follow-up is included until your pet is recovered and your goals are met. Your primary veterinarian will then take over regular veterinary care.

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