# To Radiograph or Not...That is the Question

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#### Standards of care

Not very long ago, a "dental" would consist of cleaning teeth and then extracting only obviously mobile teeth. The primary objective was to recover the patient as quickly as possible to move on to the next. No attention was given to a complete oral examination, diagnosis of radiographs, or medical treatment of the mouth. Without these things, a "dental" is merely a cosmetic procedure designed to placate clients who think "clean teeth = healthy mouth."

Now we know that a "dental" actually consists of full mouth, intraoral radiographs, cleaning teeth above and below the gingival margin, and a full oral examination including charting in order to properly diagnose and treat our patients medically. Intraoral radiography is imperative in this equation.

# Indications for dental radiography

# There are many reasons to include intraoral radiographs in your dental routine. The main reasons are:

- Missing teeth. Any tooth that hasn't been previously extracted or charted as missing and confirmed via x-ray should be radiographed. Problems may be found such as unerupted or impacted teeth and retained roots. This is especially important for cases such as cyst formation around unerupted/impacted teeth or retained roots in cases of feline gingivostomatitis and faucitis.
- Fractured teeth and/or Endodontic disease. It is necessary to evaluate all fractured teeth regardless of obvious pulp exposure. Uncomplicated tooth fractures or worn teeth may allow bacteria into the pulp chamber via exposed dentinal tubules causing nonvital teeth and/or abscessation. Many problems may also be found on seemingly healthy teeth
- Tooth resorption. More than 50% of cats and approximately 54% of dogs have been diagnosed with tooth resorption. This is extremely important to know prior to extraction of any involved teeth.
- Extractions. Dental radiographs should be taken prior to any extractions. The person performing extractions needs to know the progression of the disease, any tooth abnormalities which can make extraction difficult (such as dilacerated or fused roots, supernumerary roots, and tooth ankylosis or resorption), and how much mandibular bone remains to avoid iatrogenic fractures. Post-extraction radiographs are vital in cases of feline gingivostomatitis and faucitis and may serve to legally protect the practitioner, hospital and patient.
- Periodontal disease. This is the most obvious reason to perform full mouth radiographs on all dental patients. Periodontal disease is the number one diagnosed disease in dogs and cats over three years of age. In fact, most "dentals" are not prophylaxes at all, but can be classified instead as periodontal treatment - true dental prophylaxes are rare. Even with care taken while probing, pockets can be missed due to good gingival attachment and/or heavy calculus.

# Excuses, excuses, excuses

Just as there are many reasons for taking dental radiographs in practice, there are many excuses as to why it's not being done. Let's dispel these myths...

# "It's just too confusing to learn."

This seems to be the most common excuse for not taking dental radiographs in practice. While, admittedly, the Bisecting Angle Technique for taking intraoral x-rays IS confusing and hard to master for some, there are a vast number of articles, lectures and labs, and books available to guide you. Just as with any new skill, practice makes perfect. However, please do not practice on live patients. Purchase an inexpensive set of skulls or cadaver heads to help you learn. Cadaver heads are also invaluable for learning other techniques such as extractions, nerve blocks, and what's normal vs. abnormal. To make things significantly easier, Dr. Brett Beckman has established a simplified technique for taking intraoral radiographs utilizing angles already printed on the tube heads of dental x-ray units. More information can be found online.

#### "It's too expensive."

Yes, the initial cost of setting up a complete dental x-ray system can be expensive. However, if used properly, the unit will pay for itself in about a year. On a personal note, I include full mouth intraoral radiographs on all canine estimates, and radiographs on all cats are mandatory. It's amazing to find so much pathology on seemingly "normal" patients. This will allow the practitioner to accurately diagnose dental disease, and consequently, perform a great deal of advanced procedures on most cases. This will increase revenue and elevate patient care.

# "It takes too much time."

Gone are the days of performing as many "prophys" as possible in a day. You should designate at least one doctor and one technician with an interest in veterinary dentistry to head up this side of your practice. These individuals should receive as much training and support as possible to make them efficient in the diagnosis, treatment and care of patients. This will most certainly increase revenue

within the practice, as more common dental procedures can be taken care of in house, rather than sourced out as a referral. Remember: X-rays = pathology = increased patient care = increased revenue. This is a classic win/win situation.

#### "I don't want to leave the patient under that long."

This is a question of pros vs. cons. Finding and having to deal with more oral pathology will most certainly increase anesthetic times for most patients. However, left untreated, this pathology wreaks havoc on the entire body. Anesthetizing critical patients for a "quick cleaning" leaves behind disease that doesn't help our patients at all, but is instead truly detrimental to them – not to mention it can be considered malpractice. Thorough preanesthetic evaluations, including pre-op blood work, urinalysis, and radiographs, are paramount to smooth anesthetic events.

#### References

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