

> X-RAYS  
EXPOSED

AUG  
SEP  
2015

Patients are keen for us to minimise the number of radiographs we take. This newsletter provides a guide as to when, why, and how many radiographs are necessary in endo:

**New Patient Exam:**

- If no cone beam CT was taken, at least a periapical (PA) is needed of each RCT tooth and those with crowns or large restorations

**Diagnosis**

- Posterior teeth:  
-1 bitewing and 2 unique angled PA's
- Anterior teeth  
-2 unique angled PA's
- To ensure there are no new pathological or iatrogenic developments at least 1 in-office PA, **no older than 3 months**, is necessary:  
-For proper endodontic diagnosis and treatment  
-Prior to a crown, abutment, or cuspal coverage restoration preparation
- At least 1 **current** in-office pre-op PA is necessary when:  
- Out-of-office x-rays are provided; legally these cannot be relied upon to be accurate  
- Treatment was performed in the same quadrant since previous x-rays

**Diagnosis (cont.)**

- Pain, sensitivity or swelling has developed since previous x-rays
- Another clinician started a RCT and you are taking over the case

- The boundaries of a lesion must be evident on pre-op PA's  
-If this is not possible then a pre-op panoramic x-ray or cone beam CT must be taken

**Treatment**

- 1 PA at end of each appointment, even if treatment was not completed
- At least 1 final PA, preferably 2 at unique angles

**Follow-Up**

- Annual clinical exams and at least 1 PA, for a minimum of 5 years  
- It can take over 10 years for a PA lesion to heal  
- A lack of clinical signs or symptoms does not guarantee a lack of pathology

Bitewings provide the most accurate information about chamber anatomy, caries, as well as the relation of the roots to the crown. The bitewing above demonstrates the severe angle between the roots and crown. This obtuse angle is not obvious on the PA. As a result the previous dentist's access was too mesial to discover the DB orifice. The two PA's above demonstrate important information that can only be attained with angled x-rays. Occasionally more radiographs are necessary to determine the presence of multiple roots/canals, fractures, the extent of caries or resorptive defects and the like. The fifth image above is an example of a lesion that extended 5.5cm up the ramus from the 36/37. Without knowledge of the size of the lesion one is likely to misdiagnose the OKC and could inadvertently fracture the mandible during treatment. Although, not necessary for all cases cone beam CT is an extraordinarily powerful diagnostic tool oft utilised in modern endodontics.

All of us strive to provide the best care possible with the least use of ionising radiation but radiographs are necessary for proper endodontics. I hope this newsletter helps you alleviate the concerns of your patients while providing the best care possible.

Regards,



Joel N. Fransen  
BSc(OT), DMD, FRCD(C)  
Certified Specialist in Endodontics



**Richmond Endodontic Centre**  
Dr. Joel N. Fransen

**110-11300 No.5 Rd**  
Richmond, BC V7A 5J7  
office@endodonticcentre.com  
T 604.274.3499  
F 604.274.3477

**Office Hours**

8am to 5pm - Monday to Friday  
Extended hours are also available

The Richmond Endodontic Centre Boardroom is open; it is available for meetings, lectures, and study clubs. Please come by and have a look at our new presentation centre!