

# POLICIES & PROCEDURES:

## Radiology

## *Radiograph Exposure Policy*

---

Radiographs taken in the BTC Dental Clinic are digital.

### Selection criteria for radiography patients

Review patient's health history prior to clinic meeting (current medical conditions, pregnancy, medications, and health care treatments).

Selection of radiographs to be taken is based on the following factors:

- Medical history
- Age and previous dental care
- Current oral condition and disease risk level (caries and periodontal)
- History of radiographs

With this information in mind, consult with the clinic dentist to determine the appropriate radiographs.

### Guidelines for frequency of exposing radiographs

- One full mouth survey or panoramic film every **five years**. A panoramic image is appropriate for patients with edentulous areas or when diagnosis requires visualization of unerupted teeth or retained roots.
- Bitewing radiographs every **six months to two years**, depending on patient dental history and caries risk level. See Caries Risk Assessment Form, Appendix A.
- Horizontal bitewings(2-4) for caries survey with minimal periodontal bone loss (routinely 18 years or younger)
- Vertical bitewings (4-6) for periodontally involved patients
- Periapical radiographs as needed to examine specific conditions
- Occlusal radiographs as needed

## ADA Guidelines for Radiography

Table 1.

TYPE OF ENCOUNTER	PATIENT AGE AND DENTAL DEVELOPMENTAL STAGE				
	Child with Primary Dentition (prior to eruption of first permanent tooth)	Child with Transitional Dentition (after eruption of first permanent tooth)	Adolescent with Permanent Dentition (prior to eruption of third molars)	Adult, Dentate or Partially Edentulous	Adult, Edentulous
<b>New Patient*</b> being evaluated for oral diseases	Individualized radiographic exam consisting of selected periapical/occlusal views and/or posterior bitewings if proximal surfaces cannot be visualized or probed. Patients without evidence of disease and with open proximal contacts may not require a radiographic exam at this time.	Individualized radiographic exam consisting of posterior bitewings with panoramic exam or posterior bitewings and selected periapical images.	Individualized radiographic exam consisting of posterior bitewings with panoramic exam or posterior bitewings and selected periapical images. A full mouth intraoral radiographic exam is preferred when the patient has clinical evidence of generalized oral disease or a history of extensive dental treatment.		Individualized radiographic exam, based on clinical signs and symptoms.
<b>Recall Patient*</b> with clinical caries or at increased risk for caries**	Posterior bitewing exam at 6-12 month intervals if proximal surfaces cannot be examined visually or with a probe			Posterior bitewing exam at 6-18 month intervals	Not applicable
<b>Recall Patient*</b> with no clinical caries and not at increased risk for caries**	Posterior bitewing exam at 12-24 month intervals if proximal surfaces cannot be examined visually or with a probe		Posterior bitewing exam at 18-36 month intervals	Posterior bitewing exam at 24-36 month intervals	Not applicable

TYPE OF ENCOUNTER (continued)	Child with Primary Dentition (prior to eruption of first permanent tooth)	Child with Transitional Dentition (after eruption of first permanent tooth)	Adolescent with Permanent Dentition (prior to eruption of third molars)	Adult, Dentate and Partially Edentulous	Adult, Edentulous
Recall Patient* with periodontal disease	Clinical judgment as to the need for and type of radiographic images for the evaluation of periodontal disease. Imaging may consist of, but is not limited to, selected bitewing and/or periapical images of areas where periodontal disease (other than nonspecific gingivitis) can be demonstrated clinically.				Not applicable
Patient (New and Recall) for monitoring of dentofacial growth and development, and/or assessment of dental/skeletal relationships	Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring of dentofacial growth and development or assessment of dental and skeletal relationships		Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring of dentofacial growth and development, or assessment of dental and skeletal relationships. Panoramic or periapical exam to assess developing third molars	Usually not indicated for monitoring of growth and development. Clinical judgment as to the need for and type of radiographic image for evaluation of dental and skeletal relationships.	
Patient with other circumstances including, but not limited to, proposed or existing implants, other dental and craniofacial pathoses, restorative/endodontic needs, treated periodontal disease and caries remineralization	Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring of these conditions				

See the complete set of guidelines at

[https://www.ada.org/~media/ADA/Member%20Center/Files/Dental\\_Radiographic\\_Examinations\\_2012.pdf](https://www.ada.org/~media/ADA/Member%20Center/Files/Dental_Radiographic_Examinations_2012.pdf)

### Safety factors

The following safety factors are important in reducing patient radiation exposure: t:

- Accurate mAs, kVp, and exposure times are used.
- Radiographs are exposed only when prescribed by the dentist.
- Lead shielding for the patient, including thyroid collar, is used during all exposures. (Exception: no thyroid collar is used for panoramic films.)
- Removable oral prostheses, jewelry, etc., are removed before exposing radiographs (to avoid taking diagnostically useless films).
- Area must be completely cleared of all persons within 6 feet of the x-ray head.
- Students must announce “**CLEAR OP #**” prior to pushing exposure button.
- *Students must ask for assistance from the clinical staff when placement of the film is difficult or a retake is necessary to minimize the likelihood of retakes and thereby maintain patient exposure at a minimum.*

### Retakes

All radiographs are evaluated upon completion by the clinical instructor or dentist to determine if any retakes are necessary. Retakes are taken **ONLY** for diagnostic purposes, not for the sake of improving your grade.

### X-rays to and from other offices

#### Digital images to be sent outside the clinic

Digital images taken in the BTC Dental Clinic are sent via email to the patient along with their proposed treatment plan at the end of the appointment. Patients are responsible to send their records where they wish.

- Email communication of patient records must be encrypted using BTC email encryption software (an option through BTC outlook accounts). Just put ++ secure ++ anywhere in the subject line.
- Due to HIPAA regulations, patient name, including initials, may not be revealed on correspondence. When emailing images, save files as “BTC (type of image)”

For operation and maintenance of x-ray equipment, please see preceding section: Equipment

### Radiation Protection Guidelines

**\*ONLY the X-ray Equipment Operator and the Patient are permitted in the Operatory** when radiographs are taken.

**\*Thyroid Collar and Lead Apron are no longer required but may be offered to patients depending on their comfort level .**

**\*For panoramic radiography**, if the patient requests a lead apron, only the lead apron (no thyroid collar) is used and it is positioned in such a way so that it does not interfere with the diagnostic value of the radiograph (does not overlap).

**\*The Operator of the X-ray equipment will remain COMPLETELY behind the designated barrier** during each radiographic exposure unless using portable equipment such as Nomad.

**\*X-ray Equipment Operators WILL NOT (under any circumstances) hold films in a patient's mouth** during a radiographic exposure.

**\*X-ray Equipment Operators WILL NOT hold or stabilize the X-ray tube head** during a radiographic exposure. If equipment is not stable notify the X-ray Technician in charge immediately and move to an x-ray unit that is stable.

**\*X-ray Equipment Operators WILL NOT stand in a direct line with the central ray.**

**\*\*NOTE: ALL EQUIPMENT MANUALS ARE AVAILABLE THROUGH THE DENTAL CANVAS SITE AND HARD COPIES CAN BE FOUND IN THE DENTAL CLINIC ON THE BOOKSHELVES OUTSIDE INSTRUCTOR OFFICE.**

### Refusal of routine radiographs

If a patient chooses to refuse routine radiographs either as a new patient or at a recall appointment, we reserve the right to refuse treatment to that patient so as to not perform negligent dental care. Radiographs from another office exposed within the last 5 years may be relevant, but may not provide the necessary information to complete a full exam or diagnosis. If the patient has had full radiographs as part of a new patient exam but then wants to refuse radiographs at subsequent appointments, it may be possible to sign the "Refusal of Xrays" form at that appointment as long as they agree to have radiographs completed at an agreed upon future date. This form is currently only available in hard copy and must be uploaded to the patient's chart via the document center. As more custom forms become available to us in the software, this will be available directly in the patient forms.

Bellingham Technical College Dental Hygiene Program

Policy for radiation hygiene and protection, excerpt from BTC Clinic Manual, pages 53-57