

An Overview of Dental Radiography

Coburn Handoko*

Department of Periodontology, Purdue University, Amsterdam, The Netherlands

DESCRIPTION

X-rays are the common name for dental radiography. Radiographs are used by dentists for a variety of purposes, including detecting hidden dental structures, malignant or benign tumours, bone loss, and cavities. A radiographic image is created by a controlled burst of X-ray radiation that passes through oral structures at various levels depending on anatomical density before impacting the film or sensor. Because less radiation penetrates the teeth to reach the transmission, they seem lighter. Because X-rays may easily penetrate these less thick structures, dental cavities, infections, and other changes in bone density, as well as the periodontal ligament, look darker. Depending on the density of the material, dental restorations can appear brighter or darker.

A dental patient's X-ray dose is normally low, around 0.150 mSv for a complete mouth series, equating to a few days' worth of background environmental radiation exposure or comparable to the dose received during a cross-country plane ride. The addition of a lead shield, lead apron, and, in some cases, a lead thyroid collar reduces accidental exposure even further. When the X-ray source is engaged, the technician's exposure is lowered by moving out of the room or hiding behind suitable shielding material, because photographic film is sensitive to regular light, it must be developed after being exposed to X-ray radiation. This is generally done by exposing the film to a sequence of chemicals in a dark room. This is a time-consuming procedure, and erroneous exposures or errors in the development process may need retakes, exposing the patient to more radiation. Some of these concerns are addressed by digital X-rays, which replace the film with an electronic sensor and becoming more extensively utilised in dentistry as technology advances. They may use less radiation and be processed considerably faster than traditional radiography films, and are frequently visible on a computer right away. Digital sensors, on the other hand, are exceedingly expensive and have historically had low resolution; however this has improved in current sensors.

Intra oral radiographic views

Periapical view: Periapical radiographs are used to assess the tooth's periapical region and surrounding bone. The film or digital receptor for periapical radiographs should be set parallel vertically to the complete length of the teeth being scanned. Because of its simple procedure, low cost, and low radiation exposure, intraoral periapical radiographs are commonly used for preoperative planning. They are also frequently available in clinical settings.

Bitewing view: The bitewing view is used to see the crowns of the back teeth and the height of the alveolar bone in relation to the cemento-enamel junctions, which are the demarcation lines on the teeth that separate the crown from the root. Bitewing radiographs are widely used to check for interdental caries and recurrent cavities in restorations that have already been placed. When there is a lot of bone loss, the films can be placed with their longer dimension in the vertical axis to make it easier to see how they relate to the teeth. Bitewing images, which are obtained at a more or less perpendicular angle to the buccal surface of the teeth, show the bone levels more correctly than periapical views. Bitewings of the front teeth are not taken on a regular basis.

Occlusal view: The occlusal view shows the skeletal or pathologic anatomy of the palate or the floor of the mouth. The occlusal film, which is about three to four times the size of the periapical or bitewing film, is inserted into the mouth so that the maxillary and mandibular teeth are completely separated, and the film is exposed from beneath the chin or angled down from the tip of the nose. It's sometimes inserted into the inside of the cheek to check for a sialolith in Stenson's duct, which transports saliva from the parotid gland. The normal complete mouth series does not contain an occlusal view.

Extra oral radiographic views

An extra-oral radiographic view is obtained by placing the photographic film or sensor outside the mouth, on the opposite side of the head from the X-ray source. An antero-posterior radiograph is used to examine dentofacial proportions and clarify the anatomic basis for a malocclusion, whereas a lateral cephalogram is used to evaluate dentofacial proportions and clarify the anatomic basis for a malocclusion.

Correspondence to: Coburn Handoko, Department of Periodontology, Purdue University, Amsterdam, The Netherlands, E-mail: handoko.co@26pu.edu.nl

Received: 01-Feb-2022, Manuscript No. AEDJ-22-16198; **Editor assigned:** 03-Feb-2022, PreQC No. AEDJ-22-16198 (PQ); **Reviewed:** 17-Feb-2022, QC No. AEDJ-22-16198; **Revised:** 23-Feb-2022, Manuscript No. AEDJ-22-16198 (R); **Published:** 03-Mar-2022, DOI: 10.35248/0975-8798.22.14.214.

Citation: Handoko C (2022) A Brief Note on Dental Radiography. Ann Essence Dent. 14:214.

Copyright: © 2022 Handoko C. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.