Radiographs Linked to Increased Rates of Cancer

Twenty-one studies have found a correlation between dental diagnostic X-rays and overall health, with many finding a correlation between X-rays and brain/thyroid cancer.¹

The American Cancer Society affirms that x-rays cause cancer. They also cite a study which found that the people who had brain tumors were more likely to have had a dental x-ray.²

“There is no safe limit or “safety zone” for ionizing radiation exposure in diagnostic imaging. Every exposure cumulatively increases the risk of cancer induction.”³

A Yale study found that dental X-rays also increased the risk of developing a meningioma, the most common and potentially debilitating type of non-cancerous brain tumor.⁴

Treating Dentists Must Determine if Radiographs are Clinically Justified on a Patient by Patient basis

The FDA and ADA released guidelines stating that “Radiographs should be taken only when there is an expectation that the diagnostic yield will affect patient care.”⁵

“The dentist is the one who decides if the radiographs are needed ... They are an important diagnostic tool and it is the responsibility of the treating dentist to determine how often they are needed.”⁶

“...The clinical decision about the need for radiography is influenced by many factors. [E]ach radiograph must be clinically justified... it is unethical to take radiographs for medico-legal, administrative reasons or ‘just in case’ if there is no clinical need.”⁷

The International Commission on Radiological Protection (ICRP) recommends that activities which cause exposure to radiation should be scrutinized and must be justified by a benefit to risk analysis.⁸

Delta Dental’s Utilization Review Guidelines for 2020 state that radiographs “should only be taken for clinical reasons as determined by the patient’s dentist.”⁹

Radiographs are Not Clinically Necessary for all Orthodontic Cases

“No benefit for radiography has been demonstrated for patients referred for dental crowding.”¹⁰

Upon the review of several studies that examined the efficacy of radiography, “researchers reported the limited effect radiography has on changing orthodontic diagnosis or treatment plans... questions whether the present use of radiography may be excessive.”¹¹

“Diagnostic value of orthodontic radiographs and indications for their use are still debatable ... the minimum set of records required for orthodontic diagnosis and treatment planning has never been solidly established or defined in the literature. Consequently, the use of radiation by orthodontists is accompanied by a responsibility to ensure appropriate indication. It must always be justified and delivered in doses ‘as low as reasonably achievable.’”¹²

⁵ FDA/ADA, DENTAL RADIOGRAPHIC EXAMINATIONS: RECOMMENDATIONS FOR PATIENT SELECTION AND LIMITING RADIATION EXPOSURE(2012)