

Dental Radiology - X rays



Concept of radiation and radiation dose

Patient Protection

Dental Radiology & Pregnancy

Staff Protection & Facility Management

X rays examinations are an important tool that help dentists to diagnose, plan treatments and monitor both treatments and lesion development. There are four types of dental radiological procedure: i) intraoral (bitewing, periapical and occlusal) radiography (Figures 1a and b); ii) panoramic radiography (Figure 2); iii) cephalometric radiography (Figures 3a and b) and iv) cone-beam CT (CBCT) (Figures 4a and b). According to the [\[UNSCEAR Report\]](#) and [\[IAEA RS-G-1.5\]](#), dental examinations are the most frequent type of radiological procedure, and account for 21% of the total on a global scale. The estimated annual number of dental examinations is about 520 million, with a frequency ranging from less than one to more than 800 per 1000 population per year. Individual doses are small but collective doses can not be ignored due to the high volume of procedures. [\[EC-RP 136\]](#).

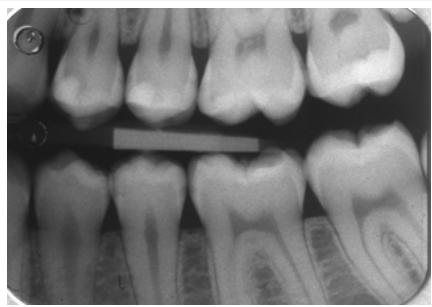


Figure 1a. Intraoral bitewing radiography



Figure 1b. Intraoral apical radiography