



DENTAL ASSOCIATES OF WALPOLE

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Drinking Water = 5.0 MREM/Year



4 Digital X-Rays = 1.3 MREM

A unit of measure called a “rem” is used to measure radiation. A rem is a large unit, much like a mile is a large unit. So we usually use a millirem (mrem) instead, much as you would use inches instead of miles for most measuring purposes. (It takes 1000 mrem’s to equal one rem)

The National Council on Radiation Protection (NCRP) says that the average resident of the United States receives about 360 mrem’s each year from background sources of radiation. This comes from outer space, radioactive materials in the earth and the small amounts of radioactive materials in most foods we consume.

Some typical sources that expose you to radiation include; smoke detectors (about 1 mrem per year), living in a brick house instead of a wood one (about 10 mrem per year), cooking with natural gas (about 10 mrem per year), reading a book for 3 hours per day (about 1 mrem per year due to radioactive materials in the wood made to make paper). Even flying in an airplane will expose you to 2 mrem for every 4 hours flown. We actually receive 2 mrem each year from sleeping next to someone!

How does all this relate to the dental x-rays that your dentist has recommended? The chart below will compare common dental x-rays to other sources of radiation exposure.

RADIATION SOURCE	MREM EXPOSURE
4 Film Bitewing X-Rays (No Longer Used in This Office)	3.8 mrem
Film Full Mouth Series of X-Rays (No Longer Used in This Office)	18.0 mrem
4 Digital Bitewing X-Rays (Currently Used in This Office)	1.3 mrem
Digital Full Mouth Series of X-Rays (Currently Used in This Office)	6.0 mrem
Digital Panorex (Currently Used in This Office)	1.9 mrem
Chest X-Ray	8.0 mrem
Lower GI Series	406.00 mrem
Airplane Flight	.500 mrem/hour
Natural Gas in Home	.9 mrem/year
Drinking Water	5.0 mrem/year
Background Radiation East Coast	15-35 mrem/year
Average Dose to U.S. Public from Natural Sources	360 mrem/year

Please speak to your hygienist or doctor if you have any other questions. Our goal is for you to feel comfortable and confident with our recommendations for your dental treatment.