

Radiation – Is it Safe?



The technology behind orthodontic treatment continues to change the way in which we provide treatment, and perhaps nowhere is that statement truer than in the realm of X-ray technology.

Still, Dr. Razdolsky and his staff have noticed a great deal of debate among members of the health community about dental X-rays and radiation. Here at [Forever Smiles](#), we make it our goal to provide you with the most up to date information on topics relating to the health of our patients and their loved ones.

That is why we are sharing with you a few scientific facts about radiation that were recently published by the American Academy of Oral & Maxillofacial Radiology. This research was conducted by Dr. Sharon Brooks at University of Michigan's Department of Radiology, and Dr. Stuart White at UCLA's Department of Radiology.

- Did you know that the exposure from one digital panoramic X-ray is less than the exposure of just being alive for one day?
- Radiation that strikes only part of the body, such as dental X-rays, is not as hazardous as the same amount of radiation to the whole body.
- The average exposure from a panoramic scan is 10-15 uSv, whereas your natural radiation exposure (just being alive) is about 3,000 uSv per year.

We sometimes use imaging from the i-CAT cone beam CT system in our practice. Thanks to this technology, we have been able to better identify and diagnose problems in countless cases. It is another tool that enables us to create the best treatment plans for each individual patient.

CT scans have been referred to as the greatest innovation in the radiology field, and its imaging ability is considered a superior to 2-D radiography. But in spite of CT's numerous accolades, radiation risks frequently are brought up when the topic is discussed.

Understand this: standard exposure from a cone-beam scan from i-CAT is .087 mSv, which is equal to 11 days of natural radiation exposure that we all get from the air we breathe, the water we drink and the food we eat.

A cone beam scan exposes patients to less radiation than a medical CT scan.

In addition to providing less radiation exposure, cone beam scans boast numerous other benefits, which have been substantiated in independent clinical research. This technology enhances treatment care for our patients. Through our use of it, we obtain highly accurate and detailed 3-D views of bone, teeth, tooth orientation, tooth and nerve relation, airways and sinuses.

Here at our practice, we employ CBCT technology precisely because of the benefits derived from using it. It has had a major impact because we have been able to better identify and diagnose problems in countless cases as a result of CBCT.

For more information about quantities and units involved in X-rays, we encourage everyone to download the below document from the American Academy of Oral & Maxillofacial Radiology. As always, please don't hesitate to contact our team if you have any questions.