Digital X-ray Radiation Exposure Fact Sheet

- A dental x-ray is a useful diagnostic tool used to help detect damage and disease not visible during a regular dental exam.
- Many techniques are implemented to decrease the amount of radiation exposed to the patient. A lead apron minimizes the exposure to the abdomen and a thyroid collar can protect the thyroid from exposure.
- Radiation exposure is measured in mREM, the average person in the US is exposed to about 360mREM per year just from naturally occurring background sources. Background radiation comes from outer space, the earth, natural materials and even other people.
- 5,000mREM is the federal total effective, whole body, yearly occupational dose limit.
- The average digital dental x-ray delivers about 0.3mREM. Therefore, a full mouth set of x-rays delivers about 5.4mREM. Depending on your oral health, full mouth set of x-rays are taken every five to seven years.
- A panoramic x-ray delivers about 2mREM.

Fun Facts

- Flying cross country exposes a person to about 3-5mREM.
- Cooking with natural gas exposes us to an additional 10mREM per year.
- Living in a brick building adds an additional 10mREM per year compared to a wooden structure.
- Simply sleeping next to another person exposes you to an extra 2mREM per year.
- To equal the amount of radiation the average citizen picks up from naturally occurring background sources each year, the dentist would have to take 950 digital x-rays.