Dental X-Rays and Radiation Exposure: Why You Should Talk to Your Dentist

What you should consider before your next X-ray

Dental X-rays, also known as radiographic images, require very low levels of radiation. However, radiation from all types of X-rays builds up in the body and never goes away. Your dentist knows your health history and your risk for oral disease and should take every precaution to minimize the exposure to you and their staff. By keeping radiation exposure As Low As Reasonably Achievable, better known as the ALARA principal, your dentist is able to ensure you are not being exposed to unnecessary radiation.

Why do I need dental X-rays?
Dental X-rays can play a role in effectively diagnosing oral diseases. However, the Food and Drug Administration (FDA) and the American Dental Association (ADA) now recommend different frequencies for different patients based on certain factors.

How often do I need X-rays?
As a dental wellness company, we are concerned about the overall health of our members. Our plans have changed to better support the FDA and ADA guidelines for frequency and further reduce exposure. Some additional factors that go into determining how often you need X-rays after a clinical exam are:

• age
• oral history
• signs of oral disease
• risk for oral disease
• current health
• restorative/endodontic needs

Can I get an X-ray if I am pregnant?
Always tell your dentist if you are pregnant before getting an X-ray. Dental X-rays are usually avoided during the first trimester of pregnancy and often postponed until after the baby is born. In the case of a dental emergency, it may be necessary to take a limited number of X-rays to determine the course of treatment. A lead apron minimizes exposure to the abdomen and should be used when any dental X-ray is taken. Dental X-rays do not need to be delayed if you are trying to become pregnant or are breastfeeding.

How do I know the equipment is safe?
Today’s X-ray equipment is able to eliminate most unnecessary radiation. All X-ray equipment is subject to state and federal regulations regardless of age or manufacturer. In addition, some states also require inspection and testing of the equipment, training or certification of personnel, permits or licensing or additional record keeping.

FDA and ADA guidelines on frequency of X-rays have changed to further reduce radiation exposure.

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When should my child have their first X-ray?
A child’s first dental X-ray is usually taken when the dentist cannot visibly see the area between a child’s back teeth, which is usually at the age of 5 or 6. However, children with a high risk for tooth decay or limited tooth space may need to have their first dental X-ray taken earlier. Children who are at low risk for tooth decay may not need an X-ray film until a later age.

How can I reduce unnecessary radiation?
The FDA and ADA have issued guidelines to limit frequency and continue to reduce radiation exposure. United Concordia plans have changed to support these frequency guidelines and further reduce exposure. To minimize the effects of overall exposure, your dentist will commonly use a lead apron that covers the entire chest and lap. These will frequently also have a thyroid collar attached to the apron. Please consult with your dentist before X-rays are taken to ensure you understand the risk associated with exposure.

What type of X-rays are used?
There are five common types of X-rays your dentist may recommend:

- **Bitewing**—Show where cavities are starting and allow your dentist to view the areas between teeth that cannot be seen directly.

- **Periapical**—Are used to detect any abnormalities of the root structure and surrounding bone structure and show the entire crowns and roots of one, two or three adjacent teeth. It also is used to look for abscesses and gum disease.

- **Panoramic**—Are useful for detecting the position of fully emerged as well as emerging teeth, identifying impacted teeth, and aiding in the diagnosis of tumors because they view all of the teeth on one film. They also show the upper and lower jaws and the sinuses above the upper teeth. Panoramic X-rays, unlike other types, do not require a film to be put in the patient’s mouth.

- **Occlusal**—Are used to view most of the upper or lower teeth on one film and are frequently used on small children to get a fast and easy view of the teeth.

- **Cephalometric**—Show the head from the side and are used to evaluate growth of the jaws and the relationship of bones in the skull. It helps an orthodontist make an accurate diagnosis and develop a treatment plan.

Newer innovation with dental X-rays
In addition to traditional X-ray methods, your dentist may already be using digital diagnostic imaging. This is a newer technique where the X-rays are sent directly to a computer and can be viewed on a screen, stored, or printed.

For additional information, talk with your dentist about the benefits and risks of dental X-rays.