When parents come into our office, their number one concern is the best care for their children. Whether it is a dental emergency requiring immediate assistance or a routine check-up, a parent’s first priority is attentive care to their child. And here at Dentistry for Children & Adolescents their care is our first priority as well.

Children are often anxious about getting dental x-rays. Being surrounded by big equipment with fancy buttons, screens, and whistles can be alarming when you have no idea what they are for! Even as a parent this can be a point of concern, but today we are going to go over the following:

- What x-rays are,
- The facts behind dental x-rays for your child,
- The different types of x-rays, and why they are used.

With this information, you’ll be better equipped to handle your own child’s questions and help alleviate their concerns before even getting in the car for a dental visit!
What are X-Rays and How do they Work?

There are a myriad of types of x-ray images that can be taken in-office to assist with diagnosing an issue. Images such as panoramic and orthodontic extraoral images, intraoral images like bitewings and periapicals and cone beam computed tomography (CBCT).

All of these dental images use ionizing radiation. Saying the word “radiation” often illicit grisly images from movies and summon thoughts of danger, but the information below is gathered in order to explain how the radiation involved is nothing to be concerned about.

X-rays are invisible beams of ionizing radiation. These X-rays are directed to the body and absorbed differently depending on the various tissues in the body. A tooth absorbs them differently than your skin, tongue, or gum tissue do which allows us to see inside!

Once they've passed through, they are captured on a special type of film and produce images in tones of gray showing calcified structures such as your jaw, teeth, and bones. The process is in no way painful, but it is important for the child to stay still or else the picture will be blurry. Parents, be ready to help in a moment’s notice! And don’t worry if we use a lead apron or thyroid shield, those are there to limit exposure.
Intraoral X-Rays

X-rays are divided into these two main categories. The main difference between them both being that intraoral has the film inside the mouth, and extraoral is kept on the outside.

Intraoral x-rays are the most common type performed and they give a very high level of detail. These x-rays allow the dentist to:

- Observe the tooth root
- Find cavities more easily
- Observe the bony area around teeth for health risks
- Monitor the status of developing teeth

Depending on what the dentist is looking for, different methods of X-rays may be employed.

**Bite-Wing X-Rays**

Bite-wing x-rays highlight the crowns of the back teeth. Their name is taken from the apparatus you bite down on during the procedure. We take one or two bite-wing x-rays on each side of the mouth and these show us the upper and lower molars and bicuspids.

**Periapical X-Rays**

Periapical x-rays highlight only one or two teeth at a time. These types look similar to bite-wings but will show the entire length of each tooth from crown to root.

**Occusal X-Rays**

Occusal x-rays highlight tooth development and placement in children. Each x-ray shows nearly the full arch of teeth in either the upper or lower jaw.
Extraoral X-Rays

Again, these types of x-rays are made with the film outside the mouth and are considered “big picture” x-rays. While showing images of teeth, they can also show us information about the jaw and skull as a whole. They are usually not used for locating cavities or flaws in individual teeth. There are three main types:

Panoramic X-Rays

With panoramic x-rays, the machinery involved can be incredibly intimidating, especially for a small child. The head of the device that emits the x-ray circles behind your head while the film circles across the front allowing the full, broad view of the jaws to be captured on one piece of film! These types also use less radiation than intraoral x-rays as well.

Because the machine moves in a set path, you have to be positioned carefully and devices attached to the machine hold your head and jaw in place. As a parent, it is imperative to ensure your child of their safety and that there is no cause for alarm! The machine is just doing its job like we are!
Extraoral X-Rays

Cephalometric Projections

Cephalometric projections are x-rays taken of the entire side of the head, used to look at the teeth in relation to the jaw and profile of the person. Orthodontists use this type of x-ray to determine the best type of treatment.

CT Scans

Cone-beam computed tomography (CT) provides three-dimensional images, and like a panoramic you sit still while it rotates about. These are useful for identifying dental implant selection and placement.

Digital Radiographs

One of the newest types of x-ray techniques, a digital radiograph replaces x-ray film with a flat electronic pad. The image gathered by the x-rays is then sent to a computer monitor where it can be viewed, stored, and printed if need be. When used properly, digital x-rays use about half the radiation of typical film.
Ensure your child is receiving the best dental care by selecting the right provider for your family’s needs. At Dentistry for Children and Adolescents, we deliver oral health care that is comprehensive, accessible and family-centered for children and adolescents.

To learn more about us and the services we can provide your family, call either one of our locations:

Creve Coeur, MO at 314-567-1122
St. Charles, MO at 636-946-5225