



This leaflet has been designed to give you information on dental x-rays and it contains answers to many frequently asked questions. If you have any other questions that the leaflet does not answer, or you would like further explanation, please ask us.

## What are dental x-rays?

Dental x-rays are images of the bones, teeth and surrounding tissues in your mouth. They are used by your dentist as an aid to help find and treat dental problems that may not be obvious from a visual examination alone. They often help your dentist to find dental problems early, before they become more serious.

## Why are dental x-rays needed?

Your dentist can look at the health of your teeth, mouth and jaws with an x-ray. Dental x-rays show tooth decay, fractures of the teeth, bone loss, infections inside the tooth or bone and the position of any teeth under the gum. They can also show other problems such as cysts, tumours and cancers.

## What are the different types of dental x-rays?

There are three main types of dental x-ray:

- **Small x-rays** are the most commonly used dental x-rays and show 2 to 3 teeth at a time. The film is placed inside your mouth while the x-ray image is being taken.
- **Bigger x-rays** are used to examine the jaws/Skull and assess dental development. The film is placed outside your mouth while the x-ray image is taken.
- **Dental Cone Beam Computed Tomography (CBCT)** allows three dimensional (3D) images of your teeth, soft tissues, nerves and bone to be produced in one scan. It is usually used for more complex dental cases.

## Is there any risk with dental x-rays?

Yes, there is some risk. However, this risk is very small and should always be justified by the intended benefits.

Radiation is a general term that refers to energy that can travel through the environment. X-rays (medical radiation) are a type of radiation that can pass through the human body and this allows x-rays to be used for medical purposes. The amount of medical radiation used in dental x-rays is so low that the risk of any damage to the body is extremely small.

### For example:

A small x-ray has approximately the same amount of radiation as 10 minutes sunbathing. A bigger x-ray would be the same as one hour in the sun or an 8-hour aeroplane flight.

## **Digital x-rays**

Here in the Dental Hospital, we only use digital x-rays. After the x-rays are taken the image is sent directly to a computer. There is no need to develop the film and the images are immediately available on the computer screen.

Digital x-rays use less radiation than conventional film x-rays and are an important way in which the risks of x-rays are reduced.

## **What are the specific risks of dental x-rays?**

A person who has dental x-rays taken has a slightly increased risk of developing a cancer compared to a person who does not have them done. This risk is very low.

For example, when taking a small x-ray, it is estimated that 1 person in 10 million will develop a cancer. The risk is slightly greater in children, but is still very low.

The benefit to you from taking a dental x-ray should always outweigh the risk, so they will only be taken when absolutely necessary.

## **Who will take my dental x-rays?**

Your x-rays will be taken by a healthcare professional who is licensed to take x-rays, or by a student under their supervision.

## **Important points to remember**

- Any healthcare professional who is licensed to take dental x-rays has been trained to use the lowest amount of radiation on the smallest possible area of your mouth.
- Tell the person taking your x-ray if you:
  - are pregnant or suspect you might be pregnant.
  - have had recent dental x-rays as this may avoid the need for new dental x-rays.

This leaflet is available online at <http://www.ucc.ie/en/dentalschool/patients>