

Information sheet for those with parental responsibility if the individual undergoing an exposure is under the age of 16.

This information sheet is designed to provide you with information on the dental radiographic examination the dentist has requested for your child.

Dental radiographs (X-rays) allow the dentist looking after your child's care to see parts of the teeth and jaws that cannot be examined just by looking inside the mouth. They are used to detect many diseases including dental caries (tooth decay), periodontal disease (gum disease) and other abnormalities of the teeth and jaws.

These examinations use radiation to produce the image. Everyone is exposed to radiation in the form of natural background radiation. The main source of this in the UK is due to radon gas released from rocks but other sources include Cosmic Radiation originating in space and some of the foods we eat such as some shellfish.

The radiation dose received from dental radiography is the equivalent to an additional few hours or days of natural background radiation, so the risk to your child's health is very low. The main health risk is the development of cancer. However, the risk is minimal/negligible and the benefit to your child in having the radiograph(s) carried out would outweigh the health risk. Information for common dental radiographic examinations is shown in the table below.

Examination	Time to receive equivalent dose from natural background radiation	Radiation Risk
Intraoral Radiograph (An X-ray examination where a small imaging plate is placed inside the mouth)	8 hours	Negligible
Panoramic Radiograph (An X-ray examination that shows all the teeth on one image. The image receptor is outside the mouth)	3 days	Minimal/Negligible
Cone Beam Computed Tomography Scan (An examination that produces a 3D image of the teeth and jaws)	3-24 days	Minimal

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What will happen when the radiograph (X-ray picture) is taken

- If your child is referred to the Dental Radiology Department they will either be seen by a qualified member of staff or by a student under direct supervision by a qualified member of staff. The procedure will be explained to you and your child. Is it important for all examinations that your child keeps still so the images produced are of sufficient quality to allow the dentist to diagnose any dental disease.
- If the request in for an 'intraoral radiograph', your child will be sitting on a chair and the imaging plate will be carefully placed inside the mouth and the X-ray beam aimed at the imaging plate and the exposure made. For a panoramic radiograph your child will be generally standing up and the X-ray unit rotates around the head to produce the image. Similarly, for a cone beam computed tomography examination, the X-ray machine rotates around the head to produce the image, but your child will generally be standing up.
- You will be able to see your child during the examination but in most cases, you will have to stay outside the cubicle so you are not exposed to radiation.
- The equipment used is modern and the lowest radiographic exposure is selected to keep the radiation risk (and the risk) as low as possible.
- Once the examination is complete the images are stored on the hospital radiology system and can be viewed by your dentist on the clinic. The dentist will go through the results with you.

If you have any questions please ask either your dentist or one of the staff in the Dental Radiology Department.

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