



Oxford University Hospitals
NHS Foundation Trust

X-rays and Scans as Part of Child Protection Procedures

Information for parents and carers



This information is for people with parental responsibility for a child who needs X-rays and scans following concerns being raised for the child's welfare.

Why are these checks needed?

The Oxford University Hospitals NHS Foundation Trust and its staff have a duty to protect children. Staff are encouraged and expected to raise concerns if it is believed a child is at risk.

Although this can be upsetting and difficult for those with parental responsibility, the child's wellbeing and safety comes first.

If any concerns are raised, it is important that these are investigated fully. As part of the investigation it is essential to identify any injuries the child may have.

In younger children and babies injuries can be difficult to find. For example, bruising on the surface of the brain can occur without any apparent injury to the outside of the head. Similarly, bones may be broken without any obvious external signs. X-rays and scans can help to diagnose these injuries.

It is also important that we look at the child's bones to see if there might be an underlying medical problem, which may cause their bones to break more easily.

What X-rays and scans will be needed?

A baby or young child will require a skeletal survey X-ray examination and a computed tomography (CT) head scan. Other tests we may need to carry out could include ultrasound, nuclear medicine or magnetic resonance imaging (MRI) scans.

What is a skeletal survey?

This examination takes place over two visits, about two weeks apart. You will be given a date and time for the second visit once the first appointment is complete.

First appointment

The skeletal survey is carried out by radiographers who are skilled in dealing with children. They will guide you and your child throughout the examination. A nurse or other healthcare professional will also be present, to help with the examination and support you and your child.

A skeletal survey is an X-ray examination of the whole body. It involves taking around 25 to 30 separate X-ray images. This will take approximately one hour.

Your child will need to keep still when each image is taken. If you are present while your child has their X-rays, you will be asked to help hold your child still, although toys and other distractions will be available. You may want to bring your child's favourite toy or comforter with you, to help with this.

Some children need to be sedated, to help them stay still. If this is suggested, you will be able to discuss the details with the doctor.

The staff will be able to help you to hold your child safely, to cause as little stress as possible to both you and your child. You will need to wear a special protective apron while holding your child, to prevent exposure to the X-ray radiation.

If you are pregnant, or could be pregnant, you must tell the radiographer. X-rays can harm an unborn baby. You will not be allowed to hold your child in this case.

It is not unusual for a child to become distressed or grizzly during this examination, as they need to be kept still for the images for quite a long time. You will be able to comfort your child between the X-ray images being taken.

The radiographers who carry out the X-rays will not know the result. The images will be looked at by a Consultant Paediatric Radiologist, then the report will be passed on to the doctor looking after your child, who will discuss the results with you.

Second appointment

Sometimes recent injuries may not show up on the first images, but will only show up in images taken later. The skeletal survey examination is not complete until the shorter second series of images has been taken.

You need to make sure your child returns for the second appointment, 11 to 14 days after the first one. You will be given a date and time to bring your child back for these images. The process of taking the images will be very similar to the first appointment.

Fewer images are needed (no more than 10) so you will not be in the room for as long.

If your doctor has not organised sedation for your child, please attend Children's Radiology just before your appointment time. Please bring a second person with you if possible, as sometimes it can be difficult holding your child still. Comforters and special toys which are familiar to your child will also be helpful to have during the procedure.

Please note: Do not bring other children with you, as they cannot be in the room. We do not have staff who can look after them during the procedure.

CT head scan

A computed tomography or CT scan is carried out by experienced radiographers. It produces images of the brain and skull. Your child will need to lie very still during the scan, which will usually last no more than 5 minutes. If you are not pregnant you may be able to stay with your child during the scan. Sometimes sedation medication may be used to help keep your child still.

The radiographers who carry out the CT scan will not know the result. The scan will be looked at by a Consultant Paediatric Radiologist, then the report will be passed on to the doctor looking after your child, who will discuss the results with you.



MRI scan

It may be necessary for your child to have a MRI scan of their brain and other areas of their body. This will be carried out by experienced radiographers. The MRI scanner looks similar to a CT scanner, but the inside is more like a tunnel.

An MRI scan can take up to 1 hour and is noisy. Your child will need to be completely still during the scan. They may need a general anaesthetic to make them go to sleep, so they don't move at all. The anaesthetist will explain to you the details of the anaesthetic, before your child has the MRI.

The radiographers who carry out the MRI scan will not know the result. The scan will be looked at by a Consultant Paediatric Radiologist, then the report will be passed on to the doctor looking after your child, who will discuss the results with you.



Can I stay with my child at all times?

If you have parental responsibility for the child, you may be able to stay in the room with them during these examinations. If you are allowed to stay, the radiographer will tell you where you can stand/sit and will make sure you and your child are safe.

Sometimes you may be asked to help staff to hold your child. The radiographer will help you to do this safely.

You do not have to remain in the room if you choose not to, as there will be experienced healthcare professionals present to look after your child.

In the X-ray or CT room you will need to wear a heavy protective apron, to protect you from the radiation.

If your child is having an MRI scan you do not have to wear any protective clothing, as this doesn't use radiation to create the images. It uses large magnets. The MRI radiographers will go through a checklist with you, to make sure it is safe for you and your child to be in close contact with the MRI magnet. If your child needs to have a general anaesthetic to help them remain still during the scan, you may be asked to wait outside the scanning room.

If there is any possibility that you may be pregnant, please tell the radiographer.

If you are pregnant

X-Rays, CT scans and MRI scans can cause harm to unborn babies. If you are (or may be) pregnant, you can go with your child to the X-ray department, but you will not be allowed in the actual X-ray or scanner room when the X-rays or MRI are being used.

A friend or relative may be able to stay with your child in your place. Please discuss this with the staff looking after your child. Experienced healthcare professionals will also always be there to look after your child.

What are the risks of these procedures?

Radiation from X-rays

Every day people are exposed to natural background radiation. This is made up of cosmic rays, radon, and natural radiation from some foods and from the ground.

Every hospital X-ray delivers a small additional dose of radiation.

- A skeletal survey is equivalent to 4 to 8 months' background radiation.
- A CT head scan is equivalent to about 18 months' background radiation.

These extra exposures to radiation slightly increase the lifetime risk of cancer, but the increase in this risk is very small.

Your child will not be exposed to any more X-rays and scans than is absolutely necessary to complete the examinations. Before any examination that uses radiation is carried out, the benefits of having the examination are closely weighed against the risks of the radiation itself.

All X-ray doses are kept as low as reasonably practical, to make sure we can get clear enough images without exceeding accepted doses. We take particular care with children, as they are still growing and more susceptible to the effects of radiation.

The radiographers will use techniques to try to get the correct image first time. They can use various methods to keep the X-ray dose to your child as minimal as possible, so your child will not be exposed to any more radiation than the examination needs.

MRI scans

Extensive research continues to be carried out into whether the magnetic fields and radio waves used during MRI scans could pose a risk to the human body. No evidence has been found to suggest that there is a risk, which means MRI scans are one of the safest medical procedures currently available.

Not everyone can have an MRI scan. For example, they're not always possible for people who have certain types of metal implants fitted, such as a pacemaker (a battery operated device that helps to control an irregular heartbeat). A safety check will be carried out by the radiographer for both you and your child before an MRI scan.

Children's Radiology Information

If you need to contact Children's Radiology to discuss your child's second follow up appointment, please call the following number:

Telephone: **01865 (2)31952**

If there is no answer, please leave a voicemail.

Further information

Public Health England – GOV UK

www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice

www.gov.uk/government/publications/medical-radiation-patient-doses/patient-dose-information-guidance

www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice

www.gov.uk/government/collections/radiation-risks-from-low-levels-of-ionising-radiation

You can also speak to the radiographer if you have further questions.

Oxfordshire Safeguarding Children Board

The Oxford University Hospitals NHS Foundation Trust follows the Oxfordshire Safeguarding Children Board procedures.

These can be found at: www.oscb.org.uk

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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Oxford University Hospitals NHS Foundation Trust
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