



Information for  
patients and  
carers

**Imaging Investigations for Suspected  
Physical Abuse**

## **This information is for those with parental responsibility for children who require x-rays and scans in cases of legally required imaging.**

The doctor looking after your child has requested imaging which may take the form of x-rays, CT (computed tomography) or MRI (magnetic resonance imaging). This leaflet will explain what happens during these examinations.

### **What is a skeletal survey?**

A skeletal survey is an X-ray examination of the whole body and will involve a minimum of 24 separate X-ray images on the initial survey and a minimum of seven on the repeat.

This examination takes place over two visits about two weeks apart.

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

You will be given an appointment for the second visit once the first appointment is complete.

### **Preparation for the skeletal survey**

Sometimes it is necessary to sedate a child or give them a general anaesthetic if they cannot keep still. The doctor will discuss this with you should they think it necessary. Usually there are no special preparations for a skeletal survey so your child can eat, drink and take any medication as normal. You may wish to bring a comforter or the child's favourite toy. Please also bring milk/snacks as this may also help.

# X-ray Imaging

## X-ray 1st appointment

To complete all the x-rays can take up to 90 minutes. Your child will need to keep still for each image taken. A nurse will accompany and hold your child and you may be able to assist. It is not unusual for a child to become distressed or agitated during the appointment, due to the length of time it can take to perform the imaging.

You will be able to comfort your child between X-ray images.

## X-ray 2nd appointment

The skeletal survey examination is not fully complete until a shorter second series of images has been concluded.

You should ensure your child returns for the second appointment, usually 11–14 days after the first series.

The process will be very similar to your first appointment.

The radiographers who perform the skeletal survey will not know the result. The x-rays will be reported by a Consultant Radiologist. The results will be discussed with you by the doctor looking after your child's care.



## CT Scan



A CT scan is performed by experienced radiographers and produces images of the brain and the skull. The scan is relatively quick although your child will need to lie very still. Sometimes sedation may be used to help to keep your child still. This would be arranged on the ward prior to arriving at the CT department.

## X-ray and CT scan: Are there any risks?

We are all exposed to natural background radiation. This is made up of cosmic rays from space and trace amounts of radioactive elements in food, air and water.

X-rays give a small additional dose of radiation.

A skeletal survey is equivalent to a few months' background radiation. A CT head scan is equivalent to about 12 months' background radiation.

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

Your child will not be exposed to any more X-rays and scans than is absolutely necessary to adequately complete the examinations. The radiographers will use techniques to try to ensure that they achieve the correct X-ray first time and use various methods to keep the dose to your child as minimal as possible.

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 practicable, to ensure that images of a high diagnostic quality are obtained without exceeding accepted doses. This is particularly the case with children as they are still growing and more susceptible to radiation.

The radiographers who perform the CT brain scan will not know the result. The scan will be reported by a Consultant Radiologist. The results will be discussed with you by the doctor looking after your child's care.

If you are present with your child in the X-ray or CT scan room you will be required to wear a heavy protective apron to protect you from the scattered radiation.

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

### **Pregnant parent or guardian**

A baby in the womb can be particularly sensitive to the radiation of an X-ray or CT scan.

If you are or may be pregnant you must inform the radiography staff. In order to protect any unborn babies from unnecessary exposure to radiation, pregnant parents may not be allowed into the x-ray room. However you may accompany your child to the hospital.

A friend or relative may be able to accompany your child if necessary. Professional health care staff will always be there to look after your child.

## MRI scan



It may be necessary for your child to have an MRI scan of their brain and other body areas in addition to the x-rays. Magnetic resonance imaging (MRI) is the name given to a technique which takes very detailed pictures

of the inside of your body. It uses a powerful magnetic field and radio waves together with an advanced computer system to build up a series of images. This will be performed by a Specialist Radiographer in the MRI department. MRI scans are very noisy so your child will be given ear plugs as ear protection and headphones. MRI scans can often be lengthy.

Your child will need to be completely still for an MRI scan as movement can reduce the quality of the images. This may mean your child needs a general anaesthetic so that they are asleep whilst the scan is performed. An Anaesthetist will explain this procedure prior to the MRI scan. You will be asked to provide your consent for this procedure to be undertaken. You will not be able to stay with your child during the scan but will be able to return to them once the scan is completed.

In modern anaesthesia, serious problems are uncommon. Most children recover quickly and are soon back to normal after their anaesthetic. Some children may feel sick or have a sore throat. These usually last a short time. Medicines to treat sickness are available and often given.

The MRI staff will not know the results of the scan. The scan will be reported by a Consultant Radiologist. The results will be discussed with you by the Doctor looking after your child's care.

## MRI Scan: Are there any risks?

The MRI scan poses no risk when appropriate safety guidelines are followed. All staff follow appropriate safety measures before, during and after the scan. Some people have implants in their bodies which need to be checked before they enter the MRI environment. A safety check will be completed with you and your child when you attend your appointment.

## Can I stay with my child?

Those with parental responsibility may be able to stay in the room with their child during these examinations.

If you are allowed to stay, the radiographer will tell you where to stand/sit and will ensure that you and your child are safe.

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

## Your results

A Consultant Radiologist will report these images and this will be sent to the doctor looking after your child.

## Contact details

Should you require further advice or information please contact: **01772 522264** and ask to speak to a lead Radiographer.

## Sources of further information

[www.lancsteachinghospitals.nhs.uk](http://www.lancsteachinghospitals.nhs.uk)

[www.nhs.uk](http://www.nhs.uk)

[www.accessable.co.uk](http://www.accessable.co.uk)

[www.patient.co.uk](http://www.patient.co.uk)

NHS Choices – Radiation

[www.nhs.uk/conditions/Radiation/Pages/Introduction.aspx](http://www.nhs.uk/conditions/Radiation/Pages/Introduction.aspx)

GOV UK – Radiation: risks from low levels of ionising radiation. 2008

[www.gov.uk/government/collections/radiation-risks-from-low-levels-of-ionising-radiation](http://www.gov.uk/government/collections/radiation-risks-from-low-levels-of-ionising-radiation)

[Patient dose information: guidance - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

You can also seek further information from your radiographer.

This information sheet was taken from:

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All our patient information leaflets are available on our website for patients to access and download:

[www.lancsteachinghospitals.nhs.uk/patient-information-leaflets](http://www.lancsteachinghospitals.nhs.uk/patient-information-leaflets)

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your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team.

If you want to stop smoking, you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

**Gujarati:**

આ માહિતીને સમજવામાં સહાયતા જોઈતી હોય તો કૃપાકરીને પૂછો. આ માહિતી મોટા છપાણામાં અને અન્ય ભાષામાં ઉપલબ્ધ કરી શકાય છે.

**Romanian:**

Vă rugăm să întrebați dacă aveți nevoie de ajutor pentru înțelegerea acestor informații. Aceste informații pot fi puse la dispoziție în format mare și în alte limbi.”

**Polish:**

Poinformuj nas, jeśli potrzebna jest ci pomoc w zrozumieniu tych informacji. Informacje te można również udostępnić dużym drukiem oraz w innych językach

**Punjabi:**

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਸਮਝਣ ਵੱਲੋਂ ਮਦਦ ਲੈਣੀ ਚਾਹੋਗੇ ਤਾਂ ਕਰਿਪਾ ਕਰਕੇ ਇਸ ਬਾਰੇ ਪੁੱਛੋ। ਇਹ ਜਾਣਕਾਰੀ ਵੱਡੇ ਪ੍ਰਿੰਟ ਅਤੇ ਹੋਰਨਾਂ ਭਾਸ਼ਾਵਾਂ ਵੱਲੋਂ ਮੁਹੱਈਆ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।

**Urdu:**

دو سرى زبانون او ر بڙى اكر آپ كو هي معلومات سمجھنے كے يے ل مدد كى ضرورت ہے تو  
يىچھيا يں يى ابى دست بو يىسكت ہے برا ے مہر يىان پو ے يىچھي۔ معلومات

**Arabic:**

مطبوعه بأحرف كبيرة و بلغات إذا كنت تريد مساعدة في فهم هذه المعلومات يُرجى أن تطلب  
أخرى يماكن تو فسير هذه المعلومات

**Department:** X-ray

**Division:** Diagnostics and Clinical Support

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