NHS
Lancashire Teaching Hospitals
NHS Foundation Trust

Information for Patients and Carers

Risks of CT Scan During Pregnancy

What is a CT scan?

A Computed Tomography (CT) scan uses x-rays and a computer to create detailed images of the inside of your body.

For some scans it may be necessary to give you an injection of an x-ray dye (contrast agent). This dye highlights blood vessels, organs and other structures of the body and helps to improve the quality of the scans.

Is it safe to have a CT scan during pregnancy?

You may have concerns about the risk to you and your unborn child when having a CT scan during your pregnancy. The information in this leaflet answers some of the commonly asked questions with the aim of allowing you to make an informed decision.

There are some small risks involved with X-rays but only the minimum amount of radiation is used to produce the images required. We use the smallest dose possible, in line with national regulations, to provide as much information as we can about your condition.

Sometimes, due to a particular medical concern, your doctor may feel that the scan is needed and an alternative diagnostic test may not provide all of the information that is required.
The decision is carefully taken based on the balance of the risks of the CT scan and the benefit of the information gained.

The risk to you and your unborn child are very small and the risk of not having the CT scan could be much greater than the risk of the radiation. Birth defects, which are often believed to be the major concern, only occur with much higher dose exposure in early pregnancy i.e. the first three months. There is a very small risk of childhood cancer from low dose radiation exposure. To put the risk into context, during a normal pregnancy a baby is exposed to normal low dose environmental radiation. At this level of exposure your baby has a 1 in 500 chance of developing childhood cancer.

The risk of childhood cancer per CT examination ranges from between 1 in 1000 to 1 in 1000000 depending on the area of the scan.

CT scan with contrast (Dye)

As part of this investigation, X-ray dye (contrast agent) may be injected in a vein, usually in your arm. A very small number of patients have an allergic reaction to the x-ray dye. This can be minor, severe, or even life threatening but the chances of this occurring are very rare. Before your examination begins the radiographer will ask you a series of questions about your medical history, including any allergies you may have. This will help us assess if you are at risk of an allergic reaction to the x-ray dye.

Occasionally, there is a small risk that the injection of dye can leak out under the skin instead of in the vein.

If this does happen then further advice will be given by the Radiographer at the time of your examination.

There is no medical evidence that contrast media can harm the unborn baby or foetus, but at the same time there are no large studies that conclusively prove that it is safe. Theoretically there is a small risk of reduction in functioning of the thyroid gland in the foetus (hypothyroidism). This will be identified by measuring thyroid function in the first week after birth. For this reason, the referring doctor will organise for your newborn baby to have a blood test in their first week of life to check the thyroid function.

The Radiographer who performs the scan will ask you to sign a consent form to allow us to share some of your clinical information with GE Healthcare who manufacture the dye (contrast agent) that we inject during the scan. This is so that they can follow up once the baby has been born.

If you have any further questions or concerns, please ask the doctor who referred you for the scan, or speak to the Radiographer.

Contact Information

Should you require further advice or information please contact us on **01772 523547** between the hours of 7.30am-8pm.

Sources of further information

www.lancsteachinghospitals.nhs.uk
www.nhs.uk
www.accessable.co.uk
www.patient.co.uk
www.lancsteachinghospitals.nhs.uk/veteran-aware
https://bepartofresearch.nihr.ac.uk/
www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice
https://www.iaea.org/resources/rpop/patients-and-public/pregnant-women
https://www.radiologyinfo.org/en/info/safety-ct-pregnancy

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www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage 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 Smokefree Lancashire on Freephone **08081962638**

Please ask a member of staff if you would like help in understanding this information.
This information can be made available in large print, audio, Braille and in other languages.

Our patient information group review our leaflets regularly, if you feel you would like to feedback on this information or to join our reading group please contact us on email address: patientexperienceandinvolvem@LTHTR.nhs.uk

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