

Having an MRI Scan With Gadolinium-Based Contrast When Pregnant

Information for patients

Your doctor has referred you for a Magnetic Resonance Imaging (MRI) scan to be carried out during your pregnancy. This referral has been made as your referring doctor/clinician and a radiologist agreed that the MRI scan will be of benefit to you. This leaflet will provide you with some further information to allow you to decide whether you want to go ahead with the MRI scan.

In the UK we follow the safety guidelines for MRI, issued by the Medicines and Healthcare products Regulatory Authority (MHRA). They recommend that scanning of pregnant patients should be carried out in such a way as to minimise the risk to the unborn child (foetus).

MRI uses a combination of radio waves and strong magnetic fields to take pictures of the inside of your body. During an MRI scan the risks to the foetus are very low but we want to inform you of the risks and tell you how they will be minimised.

Here is a summary of the risks and how we minimise these risks

- **Magnetic Field**

There is no evidence to suggest that the main magnetic field used by clinical MRI scanners is harmful to the developing foetus at any stage of pregnancy.

- **Heating**

The developing foetus is sensitive to heat. The MRI scanner delivers energy to tissue that can cause it to warm up. To reduce the amount of heating we will limit the amount of energy delivered from the scanner to you and your baby. This is done by limiting the number of scans we take and by carefully choosing the types of scans. The scanner also lets us closely monitor the energy being delivered to tissues during your scan to limit heating.

- **Hearing**

MRI scanners are very noisy. You will be given ear plugs and headphones to reduce the noise levels. While we can't offer ear protection to your developing foetus, your body and the fluid sac around the foetus will reduce the noise reaching the foetus. The scans may also be changed to reduce the noise level whilst you are in the scanner.

- **Contrast**

The MRI scan you have been referred for includes an injection of gadolinium-based contrast agent into a vein in your arm. This is a sort of 'dye' that is used in around 1 in 3 MRI scans to help show up any changes in tissues and organs.

There is very little information available on the use of MRI contrast agents in pregnant women. The available studies provide different results and so the safety of gadolinium-based contrast agents during pregnancy remains uncertain.

The Royal College of Radiologists advise that MRI contrast agents are only given to pregnant patients when it is "absolutely necessary". A doctor who is a specialist in imaging (a Radiologist) has reviewed your case. They believe that the benefit to you from using an MRI contrast agent outweighs the potential risks to the foetus. The Royal College of Radiologists states that "No effect on the developing foetus is anticipated".

Interpretation and translation

Your GP will inform us of any interpreting requirements you have before you come to hospital and we will provide an appropriate interpreter. If you are having this procedure as an existing in-patient, staff will arrange interpreting support for you before your procedure.

This leaflet may be made available in a larger print, Braille or your community language.

It's OK to Ask

When you understand what's going on with your health, you can make better decisions around your care and treatment.

www.nhsinform.scot/campaigns/its-ok-to-ask/

