

# Magnetic Resonance Imaging (MRI) Scans in Pregnancy in First Level, First Trimester or with Contrast

**This leaflet explains about MRI scanning during pregnancy, including the benefits, risks and any alternatives and what you can expect when you come to hospital.**

**If you have any further questions, please speak to a doctor or nurse caring for you.**

## **What is an MRI scan?**

Magnetic resonance imaging (MRI) is a type of scan that uses strong magnetic fields and radio waves to produce detailed images of the inside of the body. An MRI scanner is a large, short tube that is open at both ends and contains powerful magnets. An MRI scan can be used to examine almost any part of the body. The results of an MRI scan can be used to help diagnose conditions, plan treatments and assess how effective previous treatment has been.

## **Is MRI scanning safe during pregnancy?**

Lots of research has been carried out into whether the magnetic fields and radio waves used during MRI scans could pose a risk to you or your baby. No evidence has been found to suggest there's a risk, which means MRI scans are one of the safest medical procedures available during all stages of your pregnancy.

MRI scans may not be recommended in certain situations. For example, if you have a metal implant fitted, such as a pacemaker or artificial joint, you may not be able to have an MRI scan.

An MRI scan is a painless and safe procedure. You may find it uncomfortable if you have claustrophobia but most people are able to manage it with support from the radiographer. Going into the scanner feet first may be easier, although this isn't always possible.

We will scan you using a special mode, called Normal Operating Mode, on the MRI scanner. This makes sure that you and the baby do not get too warm and that the noises are not too loud for the baby.

### **What are the risks?**

Sometimes we might not be able to use the Normal Operating Mode because the quality of the images is not good enough for your doctor to diagnose your condition or plan your treatment.

In this case we may need to use the 'First Level Controlled' mode. This mode is very safe and used routinely for non-pregnant patients. There is a small risk that you or your baby may become warm whilst scanning in this mode and as such your doctor or the radiographer will speak to you and ask for your consent before scanning in this mode.

If you are in the first trimester of your pregnancy there is a small theoretical risk of your baby becoming warmer during the MRI scan than during other trimesters. As such your doctor or the radiographer will speak to you and ask for your consent before scanning in the first trimester.

Sometimes you will need an injection of gadolinium based contrast agent (also known by brand names Dotarem® and Primovist®), which is a dye used during MRI scans. If you would like more information about gadolinium please ask for a copy of the generic information sheet. It is not advised that gadolinium be injected during pregnancy as there is a small risk of harm to your baby. Gadolinium will only be used when your doctor thinks that the benefits outweigh the risk of harm. Your doctor will speak to you and ask for your consent before scanning.

## **Preparation for an MRI Scan**

Please attend the department in comfortable clothing that does not have any metallic zips or buttons if possible. Any jewellery or watches will need to be removed before the scan.

When you arrive in the department you will be given an MRI safety questionnaire to complete. This will ask for details about any surgery or implants in your body and is to ensure it is safe for you to go into the MRI scanner. A radiographer will go through this questionnaire with you.

## **What happens during an MRI scan?**

During an MRI scan, you will be asked to lie down on the scanner table which will move up and into the scanner. Depending on the part of your body being scanned, you'll be moved into the scanner either head first or feet first. Some equipment will be placed over the body part being imaged, which will help to take the images. It's very important to keep as still as possible during your MRI scan.

The MRI scanner is very noisy and you will be given ear protection such as earplugs or headphones. You will also be given a buzzer to hold which you may use to speak to the radiographer during the scan if needed. The scan lasts 15 to 90 minutes, depending on the size of the area being scanned and how many images are taken.

## **What happens after an MRI scan?**

Once the scan is finished you may leave the department and return home. You may eat and drink as normal and do your usual activities. The scan will be carefully studied and reported by the radiologist which will be sent to the doctor who referred you for the scan. It may take up to two weeks for the report to be available.

## Contact us

If you have any questions or concerns about your MRI scan, please contact the MRI department on 020 8725 2933 (Monday to Friday, 9am to 5pm).

**For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.stgeorges.nhs.uk](http://www.stgeorges.nhs.uk)**

---

## Additional services

### Patient Advice and Liaison Service (PALS)

PALS can offer you advice and information when you have comments or concerns about our services or care. You can contact the PALS team on the advisory telephone line Monday, Tuesday, Thursday and Friday from 2pm to 5pm.

A Walk-in service is available:

Monday, Tuesday and Thursday between 10am and 4pm

Friday between 10am and 2pm.

Please contact PALS in advance to check if there are any changes to opening times.

The Walk-in and Advisory telephone services are closed on Wednesdays.

PALS is based within the hospital in the ground floor main corridor between Grosvenor and Lanesborough Wing.

**Tel:** 020 8725 2453 **Email:** [pals@stgeorges.nhs.uk](mailto:pals@stgeorges.nhs.uk)

### NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.

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

## NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

**Tel:** 111

## AccessAble

You can download accessibility guides for all our services by searching 'St George's Hospital' on the AccessAble website ([www.accessable.co.uk](http://www.accessable.co.uk)). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.



**Reference:** MRI\_FLP\_LP\_01 **Published:** November 2023 **Review date:** October 2025