



NATIONAL INSTITUTE OF ONCOLOGY

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INFORMATION FOR PATIENTS HAVING AN MRI SCAN

Dear patient, welcome to our Institute!

What does MR (Magnetic Resonance Imaging) scan mean?



Magnetic resonance imaging (MRI) is a modern diagnostic imaging procedure by which a lot of information can be obtained on any part of the body, significantly helping your doctor with diagnosing the illness and planning the treatment. MRI is a type of scan that uses strong magnetic fields and radio waves to produce detailed images of the inside of the body. This process transforms energy changes in the body into a high-resolution, three-dimensional image with a high-performance computer. The great advantage of painless MRI over CT is that it does not use X-rays.

When can I not undergo MRI?

Contraindications for an MRI scan may be the following:

- pacemaker
- artificial heart valve (specific types)
- clip forceps (specific types, especially for brain aneurysm surgeries) insulin pump
- hearing aid
- other metals built in body (individual consideration)

Please, let us know, if you have any of these built-in metal items.

- If you may find it uncomfortable if you have **claustrophobia**, be sure to let us know.
- MRI scan can be not taken during the **first trimester of pregnancy** (although, according to current scientific knowledge, MRI does not endanger the fetus).
- If you **weigh more than 200 kg** (depending on your abdominal circumference), please inform your colleague.

How to prepare for MRI scan?

Preparing for your examination beforehand will significantly speed your waiting time up. **Please, take off your watch, empty your pockets and remove jewelry in the waiting room (does not apply to gold and silver objects).**

All metal objects must be removed prior to the scan.

- If a contrast-enhanced MRI scan is required, it is important that you arrive on **an empty stomach** and do not eat food 6 hours before your scheduled time.
- It may be required to administer intravenous contrast material during the examination to obtain more information. These contrast agents contain rare earth metals (e.g. Gadolinium). It requires a **kidney function test not less than 1 month old**, which also includes tests for kreatinine and carbamide that show kidney function.

How does an MRI scan work?



Most of the human body is made up of water molecules, which consist of hydrogen and oxygen atoms, which are very sensitive to magnetic fields. Short bursts of radio waves are then sent to certain areas of the body, which help to distinguish between the various types of tissue in the body.

Our operator will accompany you to the MR examiner and ask you to lie on the examining bed. The posture (mostly supine position) required for the test, after you have picked it up, the necessary coils are placed and you will be positioned into the magnetic tube. It is important that you need to remain **motionless** during the examination, and only after you have been authorized by the operator to change your posture.

The scan takes approx. 20-40 mins, depending on the area being examined.

The machine emits loud noises.

During the investigation, you can communicate continuously with our staff through the built-in microphone and speaker, and use the button in your hand to notify our staff if you have a complaint.

It may be necessary to administer an intravenous **contrast injection** during the study in order to obtain more information on the position, size and type of lesion. These contrast agents are rare earth metals (eg. Gadolinium), their complications and side effects are not precisely known. **Please indicate if you are aware of allergies, hypersensitivity to contrast media or other (medications, food, etc.).** In the attached statement, please answer whether you allow to the use of the contrast agent or not.



If you agree on the basis of the above-mentioned to perform an MRI scan on you, your child or ward with the possible use of contrast material, please, indicate it on the informed consent form with your authenticated signature.

Can I get side effects or risks during an MRI scan?

Magnetic resonance has no detrimental effect on human tissues. MRI scans are one of the safest medical procedures available. The contrast agent can sometimes cause an allergic reaction, which is extremely rare and well managed. Our staff is trained and equipped to deal with such side effects.

Please, indicate if you are aware of allergies or hypersensitivity to contrast agents or other substances (medicine, food, etc.). Please, indicate on the form attached whether you agree to receive contrast agent. Please let us know immediately if you have any complaints during the administration of the contrast medium, during or after the examination, or during the mandatory waiting period.

What happens with me after the MRI scan?

You are expected to wait 20 minutes in the waiting room following the scan. Please, do not leave the building. After the scan, you will be informed about when and how will you or your doctor receive the findings, **Please, always bring your previous MR reports and images (CD) for follow-up examinations.**

Any further questions?

If you have any questions, please do not hesitate to contact our staff. Thank you for working with us to make our job easier and we wish you quick recovery!



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