



Patient information and education:

Magnet resonance imaging (MRI) with or without contrast agent

Your doctor has recommended that you have a **magnet resonance imaging (MRI) scan**. The scan will most likely lead to a more detailed diagnosis of your condition or rule out a suspected condition.

 **Please note that as radiologists, we cannot make treatment recommendations. Your referring physician will advise you on appropriate therapies.**

■ What is a magnet resonance imaging (MRI) scan?

An MRI is an imaging procedure. Images are produced by a magnet field in combination with radio waves. No x-rays are used. It is very important that you breathe calmly and remain still during the examination.

You and the staff will be in visual contact with each other. In case of emergency, you will be given a ball which, when squeezed, will trigger an alarm. During the examination you will hear a harmless knocking sounds.

■ Are there any possible complications during an MRI scan?

Only in exceptional cases. Fear of confined spaces (claustrophobia) may cause anxiety. Metallic implants (e.g. screws, plates, stents, etc.), metallic objects (e.g. dentures, dental prostheses, jewellery, watches, spectacles, piercings, acupuncture needles, hearing aids, etc.), prostheses (e.g. hip prosthesis, knee prosthesis, etc.) (e.g. hip prosthesis, knee prosthesis, etc.), epitheses (e.g. eye, ear, finger, etc.) and orthotics (e.g. knee or ankle orthotics etc.) lead to errors in imaging and pathological findings may be missed. All removable metal objects must not be brought into the examination room, as they are attracted by the strong magnetic field of the MRI unit and can lead to life-threatening injuries. Some implants are suitable for MRI. It is essential that you show us your implant certificates. Patients and accompanying persons with pacemakers (life-threatening), defibrillators (life-threatening), neurostimulators and insulin pumps are not allowed in the examination room. Electronic implants, objects and data carriers (e.g. mobile phones, smart watches, EC, credit or other chip cards, blood glucose monitors, cardiac event recorders, etc.) can be damaged or their data irretrievably deleted. No liability is accepted for damage. If metal-containing objects or a part of your body on which there is removable metal should remain attached to the device by magnetic attraction, a costly emergency shutdown of the MRI device may become necessary. Repair or maintenance costs and downtime of the MRI device can result in costs of approximately 150.000 euros. In rare cases, burns may occur due to the heating of metallic implants and objects in/on your body.

Please come to the examination in clothes that don't have any metal in them, like no zips, buttons, or

fasteners, and no bra. If you need to take off any metal-containing clothes, please wear underwear.

■ What are the possible complications of contrast agent?


The side effect rate of modern contrast agent is low. Injection into a vein can very rarely lead to bleeding, inflammation or infection. If an extravasation occurs, i.e. the contrast agent does not flow into the blood vessel (vein) but into the surrounding tissue, serious complications requiring surgery are very rarely to be expected. MRI contrast agent can be deposited in tissues (skin, bone, brain). The only known skin deposition disease is nephrogenic systemic fibrosis (NSF). It has so far only occurred in patients with severe kidney damage (renal insufficiency) or kidney failure. In very rare cases, contrast agent (and possibly additional medications) may cause intolerance and allergic reactions. In most cases, these are mild reactions (e.g. rashes, nausea). Severe allergic reactions, including life-threatening anaphylactic shock with permanent organ damage, are very rare and usually occur within the first 30 minutes after contrast administration. During this time you should stay in our practice for observation. You are advised not to drive a car or operate machinery within the first hour after administration of the contrast agent. Please drink more than usual during the first 24 hours after the examination.

■ Additional information for women

Tell us immediately if you are or may be pregnant. In early pregnancy up to the 13th week of pregnancy there is a theoretical risk of harm to the unborn child. You should not be given a contrast agent during pregnancy. A contraceptive coil (intrauterine device) can move in the magnetic field and the contraceptive effect can be lost. Please have the coil checked by your gynaecologist after the MRI. It is not necessary to interrupt breast-feeding after a contrast scan. If you wish to interrupt breast-feeding, a break of 24 hours is recommended.

■ Refusal of the examination or the administration of the contrast agent

Refusing an MRI scan or contrast agent administration may have **serious health consequences** for you. Therapies/surgeries may not be able to be carried out or may be delayed.

 **I have read and understood the patient information. I will not bring any removable metal objects into the examination room.**



Date



Your signature



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Do you have a pacemaker, defibrillator , event recorder or artificial heart valve?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, what and when?
Your height: cm Your weight: kg	Your email address for future reminders:
Do you have an insulin pump ?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Do you have any other metal or electronic implants or devices in or on your body ? For example, stents, clips, joint prostheses (hip, knee, shoulder, spine, etc.), orthoses/braces (e.g. knee or ankle brace, etc.), metal splints, spirals, acupuncture needles, neurostimulators, blood glucose monitor, cochlear implants, hearing aids, tattoos, piercings, dental braces, dentures?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, what and when?
Have you had any complications from a previous MRI scan with contrast ?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, which ones?
Do you have or have you ever had an infectious disease , e.g. HIV/AIDS, hepatitis, tuberculosis?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, which ones?
Are you allergic to any contrast agent or other substances? E.g. medicines, latex, plasters, etc.?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, which ones?
Have you had surgery or radiotherapy in the area being examined?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, what kind?
Do you have a liver disease ?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, what kind?
Do you have any known kidney disease, kidney damage or kidney failure (renal insufficiency) ?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, what kind?
Have you ever had a liver or kidney transplant ?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, what and when?
Do you suffer from claustrophobia (fear of confined spaces)?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Do you suffer from noise sensitivity , hearing loss or hearing damage?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Name and place of family doctor (if not the referring doctor):	
Additional question for women: Are you or could you be pregnant ?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If yes, which week of pregnancy?

■ Declaration of consent

I agree to the MRI examination being carried out:



Yes:

No:

I agree to the administration of a contrast agent if necessary:



Yes:

No:

With my signature, I hereby **agree** that Radiologie Betzdorf may transmit my treatment data and findings to other doctors, hospitals, other service providers (in accordance with Section 73 (1b) SGB V) or cost bearers (e.g. health insurance companies) insofar as this is necessary for the purpose of my further treatment, diagnostics and for the purpose of billing for the services provided, and collect the necessary data and findings from the aforementioned organisations and process and use them for the purposes of the treatment and diagnostics carried out by us. You can revoke this declaration of consent in whole or in part at any time in the future. Data processing for the purposes of quality control is regulated by law in the SGB V and does not require your consent.



Date



Your signature