

MRI PREPARATION GUIDE



Magnetic Resonance Imaging (MRI) uses a strong magnetic field to generate high-resolution images of the body. To ensure your safety, it is essential to remove all metal and electronic implants prior to entering the MRI scanner, as they can interfere with the procedure and pose potential risks.

Kindly review the instructions in this brochure to ensure the safe and effective conduct of your MRI scan.

• IMPORTANT TO KNOW •



ALWAYS ON!
The Magnet is very strong.



Remove all loose metallic objects before entering magnet room, as bringing in metallic objects can cause fatal accidents.



Do not perform any of the actions listed below without prior approval from MR-trained personnel.

✗ DO NOT PROCEED WITHOUT MRI RADIOGRAPHER APPROVAL



MRI radiographer **should always be present** before entering the scan room

- Enter the scan room.
- Bring in or permit the entry of any equipment.
- Move any MRI conditional medical equipment from its designated area.
- Allow any personnel to enter the scan room.

✓ OTHER ACTIONS TO BE CARRIED OUT BY MRI RADIOGRAPHERS

- Radiographers specialize in ensuring the safe use of MRI-conditional medical equipment.
- For sedated patients, they continuously monitor vital signs (e.g., SpO2, blood pressure) using MRI-conditional devices.
- They follow strict safety protocols to maintain patient safety throughout the MRI scan.
- Their expertise guarantees the effective and secure use of MRI-conditional equipment, ensuring a safe imaging process.



Fig. 2 – Image of 3T MRI room in RadLink

BEFORE THE SCAN

REMOVE THESE ITEMS BEFORE ENTERING THE MRI ROOM



- Hair Pins
- Wigs
- Magnetic Eyelashes



- Keys
- Hearing Aid
- Bluetooth ear bud



- Dentures
- Medicine Patches
- Glucose Monitor



- Coins
- RFID Tag
- Jewelry



- Watches
- Fitness Tracker
- Safety Pins

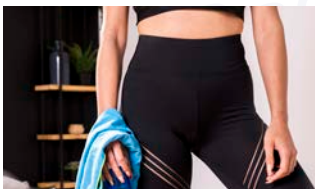


- Body piercing
- Phones
- Electronic Devices



Unsure? Let us know if you have any metallic objects you're unsure about.

WHY IS IT IMPORTANT TO REMOVE SPORTSWEAR, SUCH AS SPORTS BRAS, LEGGINGS, AND TIGHTS, PRIOR TO YOUR SCAN?



Thermal burns during MRI procedures are a notable concern, as the RF (Radio Frequency) magnetic field can generate electric currents in conductive materials, potentially leading to burns or injuries.

Please be advised that many athleisure garments contain small threads of metal, commonly silver, woven into the fabric to reduce odor buildup during exercise. These metals can heat up in the MRI machine, posing a potential safety risk. As a precaution, patients are required to change into cotton or paper gowns prior to the procedure.

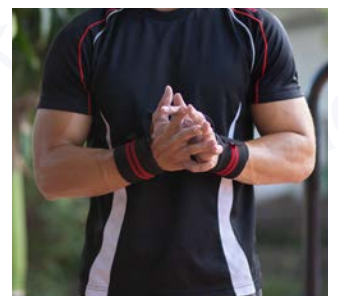


Fig. 1 – Sample Athleisure Clothing



Fig. 2 – (a) Linear redness and swelling on her bilateral thighs after magnetic resonance imaging.
(b) After a week, the redness gradually became blistering eruptions.

Sources: The Dangers of Fabric in MRI : <https://www.sciencedirect.com/science/article/abs/pii/S0363018822001128> ; Unexpected magnetic resonance imaging burn injuries from jogging pants : <https://www.sciencedirect.com/science/article/pii/S193004331930278X> ; Doctors are warning people not to wear Lululemon-like clothing during MRIs - here's why : <https://www.businessinsider.in/doctors-are-warning-people-not-to-wear-lululemon-like-clothing-during-mris-heres-why/articleshow/64112849.cms>



EXPLORE THE TOPICS BELOW TO LEARN MORE:

- The Dangers of Fabric in MRI
- Unexpected magnetic resonance imaging burn injuries from jogging pants
- Doctors are warning people not to wear athleisure clothing during MRIs

BEFORE THE SCAN

DO YOU HAVE ANY IMPLANTS?

It is important to notify us if you have any implants, tattoos, or medical devices, as some materials may interact with the magnetic field during an MRI scan. This information helps us ensure your safety and provide the best possible care during the procedure.

1 BRAIN OR HEAD IMPLANTS

- Coils
- Deep Brain Stimulators
- Stents
- Shunts



6

Foreign Object in the Eyes



2

Cochlear Implant



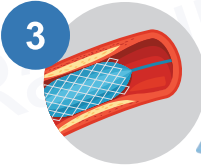
7

Pacemaker / Loop Recorder



3 ABDOMINAL SURGERY

- Coils
- Stents
- IVC Filters



8

ELECTRONIC IMPLANTS

Neurostimulator
Insulin Pump



4 METALLIC FOREIGN BODY

- Charm needles
- Gunshot/
Bullet Wound



9

IUD
(Intra-Uterine Device)



5

Tattoos (on any part of your body)



10

METAL IMPLANTS

Screws
Plates
K-wires
Joint Replacement
Spinal Instrumentation



If you have any queries, feel free to ask our friendly staff, who will be happy to assist you.

DURING THE SCAN

WHAT TO EXPECT

POSITIONING

You will lie on a movable table, and the area being scanned will be positioned inside the MRI machine. The radiographer may use cushions or straps to help you stay still during the scan.

NOISE

The MRI machine produces loud knocking or tapping sounds during the scan, which is normal. You may be offered earplugs or headphones to help reduce the noise.



To ensure your comfort, ear plugs will be given to minimize the loud sounds associated with the MRI machine.

DURATION

The scan typically lasts between 20 to 60 minutes, depending on the area being imaged.

STAYING STILL

It is essential to remain as still as possible during the scan to ensure clear images. You may be asked to hold your breath briefly for certain types of scans.

CONTRAST DYE (if applicable)

In some cases, a contrast dye may be injected into your vein to enhance the images. You may feel a brief cold sensation or taste a metallic flavor in your mouth.

AFTER THE SCAN

Once the scan is complete, you can resume normal activities. If contrast dye was used, you may be monitored for a short time for any reactions.

INTRAVENOUS (IV) CONTRAST



Injecting intravenous contrast to enhance imaging clarity during the MRI scan.

POTENTIAL SIDE EFFECTS

Mild reactions

Some people may experience mild side effects like nausea, a warm sensation, or a slight headache.

Allergic reactions

Though rare, more serious reactions such as itching, swelling, or difficulty breathing may occur, requiring immediate medical attention.



HEADACHE



SNEEZING



VOMITING



HIVES (RASHES)



SWELLING

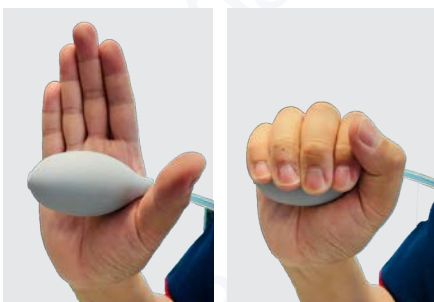


NAUSEA

CALL BELL

During your MRI scan, you will be provided with a call bell for your safety and comfort. If you experience any discomfort, anxiety, or need assistance at any point, simply press the call bell. The MRI radiographer will be able to communicate with you and address any concerns, ensuring the procedure can be paused or stopped if necessary.

Your well-being is our priority.



A call-bell will be provided. Squeeze it to signal the radiographer.



All patients aged 65 years old and above or patients with other risk factors

(with personal history of renal disease)

would require a current (within 6 months) creatinine level or estimated glomerular filtration rate (eGFR) prior to an IV contrast-enhanced examination.