

Magnetic resonance imaging contraindications

1. cardiac pacemakers/defibrillator, implanted neurostimulators, cochlear implants, infusion pumps: may cause temporary or permanent malfunction
2. ferromagnetic aneurysm clips: some centers exclude all patients with any type of aneurysm clip
3. metallic implants or foreign bodies with a large component of **iron** or cobalt (may move infield, or may heat up)
4. Swann-Ganz catheter (pulmonary artery catheter)
5. metallic fragments within the eye
6. placement of a vascular stent, coil, or filter within the past 6 weeks
7. shrapnel: BB's (some bullets are OK)
8. relative contraindications:
 - a) claustrophobic patients: may be able to sedate adequately to perform study
 - b) critically ill patients: the ability to monitor and access to patients are impaired. Specially designed a non-magnetic ventilator may be required. Cannot use most brands of electronic IV pumps/regulators
 - c) obese patients: may not physically fit into many closed bore MRI scanners. Open bore scanners may circumvent this but many utilize lower field strength magnets and generally produce inferior quality images in large patients
 - d) non-MRI compatible metal implants in the region of interest (or previous surgery with high speed drills which may leave metal filings): may produce susceptibility artifact which can distort the image in that area
 - e) programmable shunt valve: most will tolerate up to a 3T MRI without permanent damage; however, the pressure setting may be altered and therefore should be rechecked after having an MRI for any reason

From:
<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=magnetic_resonance_imaging_contraindications

Last update: **2024/06/07 02:54**

