

# Magnetic resonance imaging Safety

**Magnetic resonance imaging** (MRI) is generally considered safe, but there are some important **safety** considerations to be aware of:

**Metallic Objects:** MRI uses strong magnets, so it's crucial to remove all metallic objects from the MRI room before scanning. Metallic objects can become projectiles in the magnetic field, posing a risk of injury to patients, staff, and anyone else in the vicinity. This includes jewelry, watches, hearing aids, and even certain types of clothing or accessories that contain metal.

**Implanted Devices:** Patients with certain implanted medical devices, such as pacemakers, defibrillators, cochlear implants, and some types of vascular stents, may not be able to undergo MRI due to potential interactions with the magnetic field. However, some newer implants are labeled as "MRI-compatible" or "MRI-safe," meaning they are designed to be safe for use with MRI under specific conditions. It's essential for patients to inform their healthcare providers about any implanted devices before undergoing an MRI.

**Contrast Agents:** Some MRI scans may involve the use of contrast agents, which are injected into the body to enhance the visibility of certain tissues or structures. While these agents are generally safe for most people, there is a risk of allergic reactions or adverse effects in some individuals. Patients should inform their healthcare providers about any allergies or kidney problems before receiving a contrast agent.

**Claustrophobia:** MRI machines can be noisy and confined spaces, which may trigger feelings of claustrophobia or anxiety in some people. Healthcare providers can provide strategies to help patients cope with these feelings during the scan, such as using relaxation techniques or providing sedation if necessary.

**Pregnancy:** While there is no evidence to suggest that MRI poses a risk to pregnant women or their unborn babies, healthcare providers typically avoid performing MRI scans during the first trimester of pregnancy unless absolutely necessary. However, MRI may be used during later stages of pregnancy if the benefits outweigh the potential risks.

Overall, MRI is a safe and valuable imaging tool when appropriate safety precautions are followed. Patients should discuss any concerns or questions with their healthcare providers before undergoing an MRI scan.

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**VNS Therapy™** systems are MR Conditional and safe in the MR environment as long as certain conditions are met.

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