

MRI and Dental Hardware: Frequently Asked Questions

Is it safe for my child with braces to have an MRI?

Yes, depending on the body part that needs imaging. Magnetic resonance imaging (MRI) is a non-invasive imaging exam that uses radio waves and magnetic and fields gradients to generate images of a body part. It does not use ionizing radiation like CT scans or x-rays.

Prior to an MRI scan, we'll remove metal objects like coins and keys. Some metal objects cannot be easily removed, like braces or implantable medical devices. Because of this, some patients may not undergo an MRI scan because of the risk of damage to the devices or the devices interfering with the image.

In some cases, if you or your child needs orthodontic appliances and has a likelihood of needing an MRI of the head and neck area, the Gillette Children's Specialty Healthcare dentistry team might use titanium brackets instead of the traditional stainless steel. Titanium is more costly but reduces the need to remove or delay dental hardware for imaging reasons.

What is the problem with dental hardware that contains metal?

The MRI machine is a large powerful magnet and the presence of metal near the body part we image will distort the pictures. The severity of the distortion depends on the type and quantity of metal. It is not possible to predict how severe the interference will be until we begin imaging. For most MRI exams below the neck, it is not necessary to remove any dental hardware. For examinations of the brain, face, eye sockets or neck we may recommend that dental hardware is removed to avoid interference with the quality of the pictures.

If I decide to not remove braces or other hardware will the radiologist be able to read my images?

Even with the picture interference, very few patients will need to have the orthodontic appliances removed to obtain adequate imaging. Different MR techniques and imaging angles can aid with alleviating some of the artifact and provide more optimal images. Rarely, a patient may need to have an orthodontic device removed to allow the radiologist and patient's physician to closely follow a lesion or evaluate structures near the face that are obscured by the orthodontic appliances.

It is uncommon, but a patient may be asked to have their orthodontist remove a specific device to allow a patient to safely undergo MR imaging without the concern of injury to the patient. However, removal should be performed only after discussion between the ordering physician, patient or parent, and the radiologist.

I plan to have my dental hardware removed in the near future. Should I wait to have my MRI?

We recommend discussing the urgency of your specific MRI examination with the physician that ordered the test. Only you and your doctor can determine whether it is better to wait. If you cannot wait, we recommend device removal whenever possible to assure a quality diagnostic exam.

651-290-8707

Refer a Patient

651-325-2200

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at **651-229-3890**.