

Magnetic Resonance Imaging (MRI)



What Is an MRI Scan?

MRI procedures use powerful magnets, invisible radio waves, and computers to take detailed pictures of the inside of the body. MRI scans let doctors see bones, tendons, blood vessels, soft tissues, and organs such as the brain.

An MRI scanner looks like a large tunnel with a long table that slides in and out of the center. A child's position inside the machine depends on which body part needs scanning.

Pediatric MRI tests are just one of many [radiology and advanced imaging](#) services available at Gillette Children's.



Who Benefits from MRI?

MRI can help to diagnose and treat children who have:

- [Scoliosis](#).
- Seizure disorders, such as [epilepsy](#).
- [Brain injuries](#).
- [Hydrocephalus](#).
- [Chiari malformations](#).
- [Developmental dysplasia of the hip](#).
- Hip abnormalities.
- Infections of bones, such as [osteomyelitis](#).
- Syring.
- [Tethered spinal cord](#).
- Tumors.



Preparing for Your Visit

Before an MRI scan, you can help your child prepare at home by having them practice lying still. If your child is unable to remain still, or if they have experienced pain or anxiety during previous imaging scans, talk with your health care provider about the possibility of sedation during MRI.

If your child is pregnant or could be pregnant, talk with your doctors before having an exam. Females age 12 and

older must have a urine or blood pregnancy test before receiving sedation medicine and/or IV contrast dye. If you are pregnant or could be pregnant, you shouldn't plan to be in the room during your child's MRI exam.

What to Expect During an MRI Exam

MRI scans can take 15 to 90 minutes to complete, depending on the body part(s) that needs testing. An MRI exam can include:

Screening for Metal

Because MRI machines use powerful magnets, we check for ear and body piercings, remind kids to remove any metal jewelry or hair accessories, and ask whether there is any metal inside the body, such as:

- **Baclofen pumps.**
- **Vagus nerve stimulators.**
- Pins or rods to repair broken bones.
- **Dental implants.**
- Pacemakers.
- Heart valve replacements or cardiac stents.

Sedation Services

We make every effort to help your child relax by creating a soothing environment. If your child is unable to remain still during the MRI, sedation might be necessary. Sedation services might help if your child's disabilities, anxiety or pain might interfere with the successful completion of MRI. Our advanced imaging services are located adjacent to our surgery suites, making it easy to provide sedation and monitor your child during testing.

Using Contrast Dyes

For some types of MRI scans, we give contrast dye by mouth or into a vein through an IV line. If your child has ever had a reaction to contrast dye, talk with your health care provider.

Getting Into Position

Child life specialists can help distract and calm kids before an MRI scan. A radiologic technologist helps your child get into position on the table. If your child is having a head scan, they wear a special helmet called a head coil. Once your child is in position, the table slides into the MRI machine and the scan begins.

Performing the Scan

Your child will be alone in the MRI machine; however, you can be in the room during the scan. You can reassure your child by talking to them and distracting them with familiar stories or thinking games (spelling, addition, etc.).

We control the machine from another room, where we can see and hear your child and communicate with a two-

way speaker.

Your child needs to stay very still during the scan to make sure that we get clear pictures. Sometimes, the MRI technologist might ask your child to hold their breath for a few seconds.

The MRI machine makes loud banging and knocking noises during the scan. We offer movies to help distract kids during a scan, or your child can wear headphones with music. If you are in the room, you will also be required to wear earplugs or headphones.

After an MRI Exam

When a scan is complete, the table slides out of the MRI machine. We remove any straps or monitoring equipment. If your child received sedation medicine, they go to the recovery area so we can watch them until the medicine wears off.

A specially trained pediatric radiologist interprets the MRI scan. We'll send the results to the doctor who ordered the exam—usually within 48 hours. If the results are urgent, we'll contact the doctor immediately. To receive the results, contact the doctor who ordered the scan.

Integrated Care

At Gillette, you'll work with a team that specializes in providing MRI for children and teens who have disabilities. You'll have access to a child-friendly atmosphere and if needed, types of sedation to make MRI exams a smooth experience.

We collaborate with [St. Paul Radiology](#) to provide an expert reading of pediatric imaging studies. St. Paul Radiology is nationally known for its specialized expertise in interpreting radiological studies of children.

Locations

All radiology and imaging tests, including MRI scans, are available at our St. Paul Campus.

Appointment: 651-290-8707

Refer a Patient: 651-325-2200

Pediatric Expert Consult (<https://www.gillettechildrens.org/conditions-care/pediatric-expert-consult>)

More Ways to Contact Us (<https://www.gillettechildrens.org><https://www.gillettechildrens.org/contact-us>)

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](tel:651-229-3890).