

## Magnetic resonance imaging (MRI)

Your child is scheduled for magnetic resonance imaging (MRI) at Children's Hospitals and Clinics of Minnesota.

Date: \_\_\_\_\_

Test time: \_\_\_\_\_

Check-in time: \_\_\_\_\_

Children's - Minneapolis  
2525 Chicago Avenue South  
Minneapolis, Minnesota 55404  
(612) 813-8200

Children's - St. Paul  
345 North Smith Avenue  
St. Paul, Minnesota 55102  
(651) 220-6147

Children's Minnetonka  
6050 Clearwater Drive  
Minnetonka, Minnesota 55343  
(952) 930-8600

**Please bring a list of your child's medicines and your insurance card with you.** If you have questions about your insurance coverage for these services, or any special referral requirements, please contact your insurance company directly.

If your child has had radiology tests for this problem at another facility (not Children's), please bring the CD or films with you.

A parent or legal guardian must accompany children younger than 18 years old.

### What is an MRI?

An MRI scanner creates three-dimensional images (pictures) of body tissues (such as the brain, heart, spinal cord, arms and legs) using a large magnet and radio waves. It does not use radiation. There are no known harmful effects from having an MRI scan.

### How is the test done?

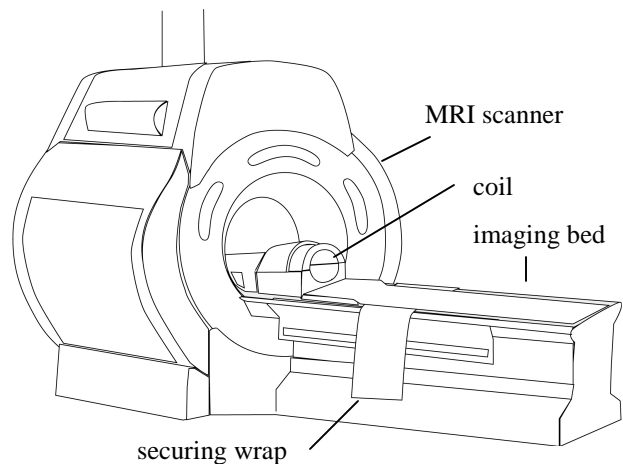
A staff person will bring you and your child into an exam room to discuss medical history and explain the test. Children may wear their own clothes for the MRI scan as long as there are no metal objects such as zippers or snaps. Staff may ask your child to go to the bathroom before the scan.

The magnet is always on in the room. Due to the strength of the magnetic field, all metal objects, such as barrettes, bobby pins, jewelry, clothing with sparkles, and credit cards, must be removed before going into the scanning room. Dental fillings and braces are not a problem.

Sometimes a contrast material is used to give more information about your child's body. If contrast is needed, a nurse will start an IV in a vein, usually in the arm or hand. This involves a little poke, using a small IV (intravenous) needle. Once the IV is in place, the needle is removed and a tiny plastic tube stays in the vein during the scan. It should not bother your child once it is taped down. Staff will work with you and your child to plan the best way to support your child when the IV is put in.

Then you and your child will be taken to the MRI room. You will see the large scanning

machine with an opening in the middle (looks like a doughnut hole). Your child will lie on the imaging bed, which moves in and out of the opening smoothly. The inside of the machine is lit and air moves through it, so it is comfortable.



A “coil” (open helmet or wrap) will be placed over the part of the body being scanned, but it will not touch your child.

The MRI technologist will secure your child with soft wraps and blankets. If contrast is used, it will be given into the IV during the scan.

The scanner does not touch your child. It makes a loud thumping or tapping sound. Your child will be given earplugs to wear, or headphones to listen to music. Your child can also choose to watch a movie using special goggles.

Throughout the scan, the MRI staff can see you through a window and talk with you through the intercom.

Patients must hold very still during this test. This means they should not talk. Children ages 6 and younger, or those with special needs, may be given sedation to help them hold still. The sedation is given through an

IV or by mouth, depending on your child’s age and health status. If you have questions about sedation or want to ask staff whether your child will benefit from being sedated, please call the radiology department at the site checked on page 1. See the education sheet, [Sedation for a procedure](#).

The radiologist will check the images to make sure they are complete, and the results will be sent to your child’s doctor.

### **Can I be with my child during the test?**

If not pregnant and you have no implanted metal devices such as a pacemaker or insulin pump, you are welcome to stay with your child. You will be given earplugs to wear.

If sedation is used, you may stay until your child is asleep; then you will be asked to wait in the waiting room until the exam is complete.

The MRI usually takes 20 to 60 minutes, depending on what part of the body is scanned. There are usually several sets of scans for each study. Each set of scans lasts about 2 to 10 minutes. If your child has sedation, plan on more time before and after the scan for the medicine to be given and for your child to wake up once the scan is done.

### **What should we do before the test?**

If sedation or contrast is used, your child should have nothing to eat or drink before the scan. You will receive a phone call with specific instructions. If your child needs any prescribed medicines within 2 hours of scan time, give them with a few sips of water only, unless your doctor recommends otherwise.

If your child is sick or doesn't feel well the day of the scan, please call the radiology department to reschedule the appointment.

Read and discuss this information with your child. Answer as many questions as you can. To learn more about preparing and helping your child cope with this test, call the child life department. Child life specialists are trained to help children understand and cope with medical procedures and can offer advice on how to talk with and support your children. There is no charge for child life.

Children's - Minneapolis (612) 813-6259  
Children's - St. Paul (651) 220-6465  
Children's West (952) 930-8773

## How should I prepare my child?

Children are usually less afraid and feel more successful when they know what to expect and what is expected of them. You know your child best. The amount of detail you give will depend on your child's age and developmental level, reactions to previous health care experiences, and degree of anxiety about this test. Talking about it can help your child be more comfortable with the test, which will make the procedure easier for both of you.

Most children benefit when you use simple words to explain:

- why the test is needed. For example, describe the child's symptoms or problem, such as headaches, other pain, or dizziness, and that the MRI scan may help find out more about what's causing that.
- which part of your child's body will be involved.
- what your child might see, hear, and feel—for example, the doughnut-shaped scanner, soft ear plugs, goggles (like swim goggles) to wear to watch a movie.

- where parents or other significant care providers will be during the test: "I/we will be with you the whole time" or "We will be waiting in a room nearby until the scan is finished."
- that it is okay for hospital staff to touch your child's body for this test.
- that questions are welcome at any time.

For many children, a big concern is whether or not the test will hurt. The MRI scan itself is painless. Assure your child that although there may be some discomfort if an IV is put in, it will only last a few moments. Remind your child that the test is important because it helps find out how the body is working inside.

## How can I support my child during this test?

**Before the appointment**, you and your child can:

- practice lying down and being "as still as a statue."
- practice relaxing. Imagine being in a favorite place or doing a favorite activity.
- pack comfort items, such as a stuffed toy or blanket, some familiar books or quiet toys, a pacifier for very young children. Older children and teens may want to bring an iPod® or a hand-held video game to use during waiting time.
- talk about how much your child wants to know about the test while it's happening. Some children want to be told each step in advance and also while it's happening. Others do not want all the detail; they simply want to be distracted and supported. Be sure to share your child's wishes with the staff once you are here.

## While you wait

Research is clear that parents are most helpful to their children during stressful times when they offer distraction rather than apologies.

- Talk about familiar, positive things – what your child likes, places you've enjoyed, activities you're planning as a family, fun times you've had, successes.
- Sing songs together. Play games that require thinking, such as spelling words or adding and subtracting out loud. Ask young children which animals live on a farm or in the zoo and the sounds they make, or to name all the people in their family or class, and so on.
- Read books, play "Can you guess?" and give cues about people and pets you know, things you see in the room.

## During the scan

- Patients may choose from one of our DVD movies to watch during the scan, or may bring one from home.
- You may stand quietly with your hand on your child's hand, arm, leg, or foot. This assures him or her that you are present.

## What can we expect after the test?

If sedation was used, your child will need to be monitored by a nurse until awake. After the scan, the IV contrast liquid is filtered through the kidneys and passes unnoticed in your child's urine. Encourage your child to drink an extra glass of water after the test.

The doctor who ordered the test will contact you with the results in 2 or 3 business days.

## What else do we need to know?

On the day before the test, you may pre-register online at [www.childrensmn.org](http://www.childrensmn.org). Please do this before 3 p.m. If you prefer, you can call the admitting office.

Children's - Minneapolis (612) 813-6231  
Children's - St. Paul (651) 220-6878  
Children's Minnetonka (952) 930-8600

Anesthesia, sedation, certain other medicines such as contrast can pose a serious risk to pregnancy. For this reason, we need to know whether or not a patient is pregnant in order to provide the safest care possible. Girls who are at least 12 years old, or younger girls who have started their periods, are screened for pregnancy.

Pregnant women cannot be in the exam room during the test. A family member or friend, age 18 or older, may stay with your child. Siblings may not be in the room during the test. Please have an adult stay with them in the waiting room, or sign them into the Sibling Play Area (if 2 years or older). Call to ask about hours:

Children's – Minneapolis: (612) 813-7051  
Children's - St. Paul: (651) 220-7150

Plan to allow extra time before the appointment, to check your children into the Sibling Play Area.

## Questions?

This sheet is not specific to your child but provides general information. If you have questions or need more information about the test, call the radiology department at the site checked on page 1.

Children's Hospitals and Clinics of Minnesota  
Patient/Family Education  
2525 Chicago Avenue South  
Minneapolis, MN 55404  
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