

What to Expect When You Go for a MRI for Heart or Liver Iron

After the scan

When the MRI scans are finished, the technician will remove the table from within the tunnel. If you have received a sedative, you may need to spend some time at the center until the effects of the sedative have worn off and have someone accompany you from the scan. If you have not received a sedative, you need only check to see if anything further is required and then leave. The results will be reviewed by the appropriate specialists and forwarded to your doctor, who will discuss them with you.

Where can you get MRI for heart or liver iron?

Remember that **many hospitals do not have the specific technology and experience for measuring liver and heart iron levels accurately.** Most specialized thalassemia treatment centers DO have this ability; if your center is unable to perform these measurements, contact the CAF Patient Services Department (info@cooleysanemia.org; 212-279-8090) in order to determine the center closest to you that can provide these services.

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Magnetic resonance imaging (MRI) can be used to assess the amount of iron in different organs of your body. It can also be used to determine how well your heart is pumping blood. However, measuring organ iron and assessing how iron may affect cardiac function by MRI requires special technology that is only available at a small number of hospitals.

Your doctor will recommend at what age you should begin having tests to determine if iron is affecting your organs. If you arrange to have an MRI for these purposes, your doctor or other member of your healthcare team will go over the specifics related to the MRI procedure. Below is some general information about what is typically involved, so that you have an overall picture of the process.

What does the machine look like?

The MRI machine used to measure iron resembles a large, long tube or tunnel. There is a table that is large enough for a person to lie on which can be moved in and out of the tunnel.



A typical MRI machine

What to wear

MRI machines are very sensitive, so there are some things that you won't be able to wear during the scan. This would include things made of metal, such as jewelry, hair



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clips, rings, necklaces, zippers, metal snaps, brassieres (unless totally metal-free), etc. If you wear these to the appointment, you will need to remove them before the scan. Sometimes it will be recommended that a patient wear a hospital gown rather than the clothes they wore to the testing site.

If you have any metal in your body (such as metal pins or clips), make sure that you have discussed this in advance with your doctor; also make sure you tell the nurse or technician at the scan. Braces and port-a-cath devices are okay. If you have a pacemaker or implantable cardio-defibrillator (ICD), you probably cannot have a MRI. Check with your doctor.

Anesthesia

Getting an accurate reading is dependent upon the patient holding as still as possible. Sometimes patients may be afraid of enclosed spaces; this is known as claustrophobia. If you think this could be an issue for you, discuss this with your doctor beforehand; a doctor may recommend that a mild sedative be given to patients with claustrophobia to increase their comfort level.



Children

Most children older than 6 years of age can have a MRI scan performed without needing a sedative or general anesthesia; if a child is not thought to be old enough to hold still during the process, the doctor may recommend a sedative or general anesthesia. Some younger children may feel nervous or afraid about undergoing a MRI. It's a good idea to talk to your child about what will

happen and what the experience will be like, so he or she is prepared. Sometimes patients can listen to music during a MRI, and this may be soothing to a child. It also may help to encourage the child to use his/her imagination during the scans and to imagine playing at the beach, flying in a rocket ship or riding in a submarine, etc.

Eating and drinking

For most MRI scans, there is no fasting requirement unless the patient requires general anesthesia. Unless otherwise advised by your doctor, you should be able to eat or drink as you normally would. A typical scan lasts from 30-60 minutes. You will want to visit the bathroom before starting the scan.

Noise

An MRI scan is painless, but the machinery does produce a lot of noisy thumps and banging sounds. You should be given earplugs and/or protective headphones to help lessen the noise level. If not, ask for them.



Electrodes

When you set up your appointment, ask your doctor if ECG electrodes will be used during the scan. If you typically use any skin oils or treatments, ask if doing so will cause any difficulty in securing the electrodes to your skin.

During the scan

Just before the scan starts, the technician will put you into the position that s/he requires to get the appropriate scans. You will usually be asked to lie down and may be asked to place your arms or legs in particular positions. You will need to hold as still as possible in this position during the scan. If you think you might get cold, you can ask to have a blanket cover you or cover part of you during the scan. If you are comfortable, you will get better results.

After you are in position, the table you are lying on will be slid into the tunnel. Although the scan process usually takes 30-60 minutes, there is some down time between each of the scans. During that down time, you should continue to remain in the requested position. You will be asked to hold your breath when the actual scans are in progress.

Although your technician will be conducting the scan from a different room, s/he is still able to hear you. If you develop a concern, you will be able to communicate it.