What is an MRI?
Magnetic resonance imaging (MRI) uses magnetic fields and radio frequencies to produce detailed pictures of organs, soft tissues and bones. Unlike X-rays or CT scans, MRIs do not use ionizing radiation.

Get the Best Possible Images in a Spacious MRI
Houston Methodist Sugar Land Hospital's wide-bore MRIs feature improved imaging for a more accurate diagnosis and an expanded interior that holds up to 500 pounds. Plus, there is no additional cost. The better the MRI image, the easier it is for your doctor to diagnose and treat you. If you are claustrophobic, be sure to request a wide-bore MRI upon scheduling.

Tesla is the unit of measurement quantifying the strength of a magnetic field. Prior to the 3 Tesla, the high-field standard was 1.5 Tesla. The 3 Tesla generates a magnetic field that is twice the strength of 1.5 Tesla machines and 10 to 15 times the strength of low-field or open MRI scanners.

Convenient MRI Hours:
Monday – Friday, 7 a.m. – 10 p.m.
Saturday, 6:50 a.m. – 5 p.m.
Sunday, 9 a.m. – 5 p.m. (non-contrast)

Schedule online at houstonmethodist.org/imaging or call 281.274.7170.

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<th>Our Wide-Bore</th>
<th>vs.</th>
<th>Their Open MRI</th>
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<tbody>
<tr>
<td>Image Quality</td>
<td>3 Tesla &amp; 1.5 Tesla (Superior)</td>
<td>0.7 Tesla (Poor)</td>
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<td>Average Headroom</td>
<td>Nearly 28 inches Option to go in feet first for most exams</td>
<td>15.5-17.5 inches Depending on scan, head may be inside machine</td>
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<tr>
<td>Exam Time</td>
<td>Quicker scanning for different areas without repositioning</td>
<td>Continuous repositioning may be required, which may extend the exam</td>
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How does an MRI scan work?
The MRI machine is a large, cylindrical (tube-shaped) machine that creates a strong magnetic field around the patient. Unlike X-Rays and CT scans, MRI does not use radiation.

How is an MRI performed?
Generally, an MRI procedure follows this process:

1. If a contrast medication and/or sedative is to be given by an intravenous (IV) line, an IV line will be started in your hand or arm.
2. You will lay on a table that slides into a slides into a tube-shaped scanner.
3. A registered MRI technologist will be in a room close by where the scanner controls are located. However, you will be in constant sight of the technologist through a window. Speakers inside the scanner will enable the technologist to communicate with and hear you. You will have a call bell so that you can let the technologist know if you have any problems during the procedure.
4. During the scanning process, a clicking noise sounds as the magnetic field is created and pulses of radio waves are sent from the scanner. You may be given headphones to wear to help block out the noises from the MRI scanner and hear any messages or instructions from the technologist. If you are being scanned on one of the 3 Tesla MRI scanners, you may listen to an MP3 player during the scan. Every patient is provided ear plugs to minimize the sound of the scanner.
5. It is important that you remain very still during the exam.
6. At intervals, you may be instructed to hold your breath, or to not breathe, for a few seconds, depending on the body part being examined.
7. The technologist will be watching you at all times and will be in constant communication.

What does “with contrast” mean?
MRI scans may be done with or without contrast. “Contrast” refers to a dye-like substance injected into an intravenous line (IV) that causes the particular organ or tissue under study to be seen in more detail. Contrast examinations may require you to fast for a certain period of time before the procedure. Your doctor or the hospital scheduler will notify you of this prior to your appointment.

What if I am claustrophobic?
Be sure to let your doctor know before scheduling your MRI if you are claustrophobic. Patients who are claustrophobic find the spacious and comfortable 3T Wide-Bore MRI very accommodating. Your doctor can write you an order for the 3T Wide-Bore MRI. You may also request it out the noises from the MRI scanner and hear any messages or instructions from the technologist. If you are being scanned on one of the 3 Tesla MRI scanners, you may listen to an MP3 player during the scan. Every patient is provided ear plugs to minimize the sound of the scanner.

How do I prepare?
Wear comfortable clothing, such as sweatpants or shorts without metal or zippers and a T-shirt without metal or zippers. Because of the strong magnetic field, you will need to remove all jewelry and metal objects, such as body piercings, hairpins or barrettes, hearing aids, eyeglasses and dental pieces.

Tell the technologist if you:
• have a pacemaker inserted or have had heart valves replaced
• have metal plates, pins, metal implants, surgical staples or aneurysm clips
• have tattoos
• are pregnant
• have ever had a bullet wound
• have ever worked with metal (i.e., a metal grinder)

How long will the exam take?
Generally, an MRI exam will take 30-40 minutes.

Are there risks?
Risks are involved for pregnant patients or patients with certain implants. A technologist will ask about any implants the patient may have.

Pregnant patients in their first trimester will not generally have an MRI. Risks will be explained to all pregnant patients, and they will be required to sign a consent form if they agree to the exam. Additionally, all pregnant patients will be scanned on the 1.5 Tesla.

AFTER YOUR TEST
A board-certified radiologist will interpret your exam. Legally, the technologist cannot interpret or discuss what they are viewing while performing the exam. A report with the results will be sent to your doctor within two to three business days and uploaded to our secure patient portal, MyChart. Please check with your doctor’s office to discuss the results.