



Magnetic Resonance Imaging (MRI) 磁振造影(英文)

What is MRI Scan?

It is a technique that uses magnetism to polarize hydrogen atoms in body tissues that contains fat and water by using RF (Radio Frequency) waves and produces a resonance effect of the protons. Then these protons send various signals of different intensity, which are detected by the receiver of the MRI scanner. The receiver information is processed by a computer, and an image is produced.

Does MRI use X-ray radiation?

NO! The MRI scan is a technique that creates a strong magnetic field. Therefore it is a radiation free examination.

What is the benefit of MRI?

1. No radiation exposure
2. Multiple-plane scanning
3. Non-invasive inspection
4. No known side effects
5. Precise and accurate in detecting structural anatomy
6. Provides accurate information for diagnosis of neurological tumors.

This technique has developed rapidly over the last 20 years and has become the most important diagnostic technique of each medical center.

How does MRI affect the human body?

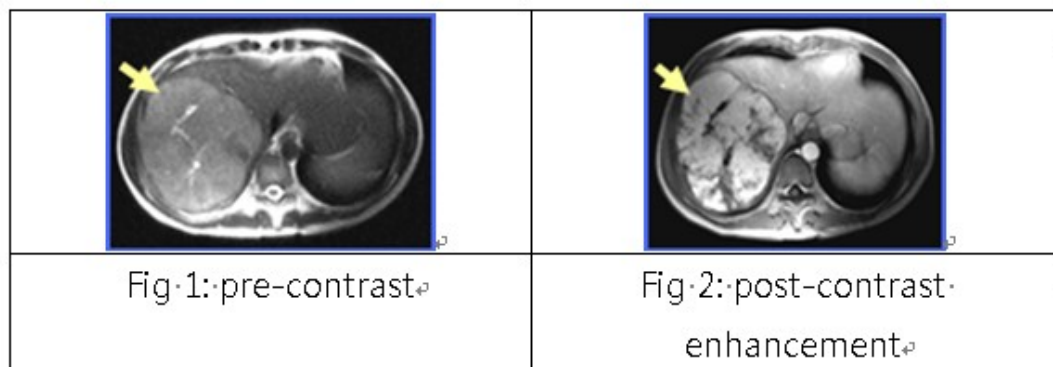
Up to now, no side effect has been reported. The average examination takes only about 15-45 minutes.

Does the patient need a contrast medium?

Not necessarily. The MRI scan is different from other imaging techniques by using Multi-Plane and Pulse Sequence techniques. Multiple-plane scanning views of one section for a certain lesion are obtained and can be distinguished from others by comparing the differently weighted imaging sequences. Therefore, in most cases, patients do not require a contrast medium. In some cases it may help the examiner to make the variety and extension of the lesion (e.g. small foci or tumors) better visible with a contrast medium.

What is the contrast medium? And what is its purpose?

The MRI contrast agents enhance the contrast between different tissues.



What is the difference of MRI contrast agents CT contrast agents? Does it produce any side effects?

The components of the MRI contrast agents are different from those for CT and are safer to use. There are no side effects or allergy reactions. Generally speaking, the contrast agents will be eliminated within 24 hrs after the examination. Patients who have questions about the contrast medium or patients with an allergy history should contact our medical staff.

How does the patient prepare for an MRI scan ?

1. Fast for 4 hours prior to the examination
2. All metallic or magnetic objects must be removed from the body.
3. The patient has to change clothes if there is a metallic zipper, hook, or thread on the clothes, as well as remove mobile dentures and braces if possible.
4. Please Informed our staff before this exam if you have metallic chips, metal implant, surgical clips or artificial body parts (artificial joints, metallic bone plates, or prosthetic devices, etc.)

Information for the patient

During the MRI scan, the patient lies in a closed area inside the magnetic tube. The MRI machine will produce some noise during the exam. Please

don't move your body during the examination just relax and breathe smoothly. Don't be too nervous. Our staff will observe you via a monitor and a microphone. If you feel any discomfort during the examination, you can call out. We will hold the procedure and let you out if necessary.

What kind of people cannot take an MRI scan?

- Patients who have heart pacemakers or claustrophobia.
- If you have any of the above-mentioned articles, please inform the MRI staff before the examination.

Can pregnant women undergo an MRI scan?

In principle, yes, because there is no report about MRI scanning being harmful to pregnant woman and her fetus. In recent years, the MRI scan has even become an adjunctive diagnostic procedure to congenital diseases of the fetus. as a precaution, we suggest that women who are pregnant less than three months avoid the MRI scanning.

若有任何疑問，請不吝與我們聯絡
電話：(04) 22052121 分機 3333、5436
HE-T2043