

Functional MRI (fMRI) - This exam demonstrates the metabolic activity of the brain to visualize the areas of the brain that are involved when doing specific tasks, which helps your doctor create an accurate map of your brain. These tasks can include tapping a finger, thinking of verbs, or listening to music.

Reasons for this test

Your doctor may order a Functional MRI to evaluate and map areas in your brain to help him during procedures. These are not routine exams and are usually ordered by a Neurosurgeon pre-operatively.

Possible complications

Some MRI exams require an injection of intravenous MRI contrast. Allergic reaction from gadolinium dye is extremely rare (less than 1%). Your doctor will review a list of possible complications. These may include: rash, hives, or shortness of breath. Notify the technologist immediately if you experience any discomfort.

What to expect prior to exam

- There is usually very little preparation for an MRI exam. Take your daily medications as you normally would, unless instructed otherwise. For those exams with dietary restrictions, you will be notified of the requirements when scheduling.
- Typically you will be asked to arrive 45 minutes prior to the scheduled procedural time. However, in some cases, you may be asked to arrive an hour or two hours early. You will be notified of your arrival time when scheduling.
- You should wear comfortable clothing that does not have metal fasteners or metallic designs. Otherwise, you will be asked to change into a hospital gown. A locker will be supplied to secure your belongings.
- If you have any type of electronic or surgical implant, please bring the device card or other documents with the device information with you, as these devices must be documented to be sure they are safe before you can go into the MRI room.

What to expect the day of your exam

- You will be registered and asked to fill out the [MRI screening form](#). You can print this and fill it out ahead of time to bring with you.
- A health care professional will explain the test and answer any questions you may have.
- If your exam requires contrast an IV will be started so the contrast can be administered during the exam.
- You will be required to lie still during the actual scanning, as MRI is extremely sensitive to motion and any movement will cause the images to be blurry, resulting in repeated scanning and longer time in the magnet.
- The magnet is permanently open on both ends. It is well lit and there is a fan for patient comfort. The part of the body being scanned will be placed in the middle of the magnet. There is a two-way intercom system for communication between patient and technologist.
- During the actual imaging, you will hear a loud intermittent banging noise. You will be provided with earplugs or headphones to minimize the noise during the procedure.

- If you have claustrophobia, you should discuss this with your doctor. Sedatives during a Functional MR do not allow you to follow directions and are not recommended.
- The technologist will also provide you with an alarm button to alert the technologist of any discomfort you may experience at any point during the MRI exam.

What to expect after your exam

- If a contrast injection is performed, the IV is removed from the arm before you go home.
- If you received sedation, someone must drive you home.

How long will it take?

The exam is approximately one hour long. If you are given contrast it will add an additional 20-30 minutes.