CONQUER CHIARI®
RESEARCH CENTER

CONQUER CHIARI®
From Knowledge, Strength. Through Research, Hope.

MRI

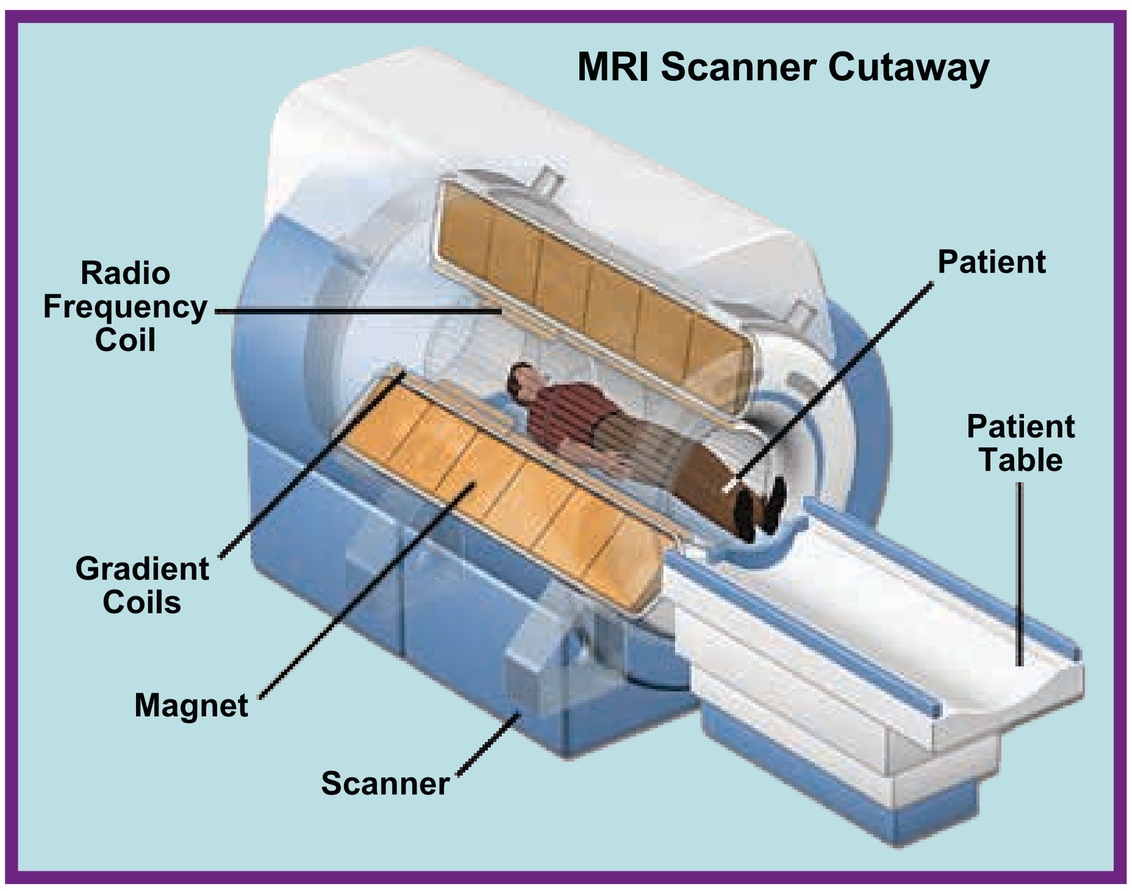
An MRI is a complex machine that uses magnetic fields to manipulate and measure water content (hydrogen) in order to create a representation of what is inside the body. It builds the image set through a series of slices in different directions.

What to Expect

- After the initial waiting time in the reception area a technician will explain the process, ask a series of questions, and lead you into the MRI room
- Once inside the generally cold MRI room, you will lie down on a flat bed
- Because the machine is loud, you will be given ear plugs to protect your ears or headphones to listen to music and communicate with the technician
- Depending on the equipment, a coil may be placed over your face like a mask
- The bed will then slide into the machine, you will have a panic button to push in an emergency
- For the next 20 minutes to 1 hour, the machine will make a series of loud noises, occasionally changing positions

It is crucial to stay as still as possible for an accurate picture

During the first year a patient can expect to undergo several MRI scans with repeated follow-ups in the years to come



Phase-contrast MRI *(cine-MRI)*

Phase-contrast is taken the same way as a traditional MRI, with the addition of either a wristband or EKG leads on the patient's chest to measure the heart rate

The MRI machine is used in the same way as a traditional MRI, however, the operator will program the MRI a little differently and the computer that generates the image(s) will interpret the data it receives differently in order to show movement

Phase-contrast allows for the visualization of cerebrospinal fluid (CSF) flow and can be used to determine if a Chiari malformation is blocking the natural back and forth flow of CSF between the brain and spine and how large the blockage is

Limitations of MRI

As with any machine, it is not perfect and there are a number of areas where variability and lack of resolution occur

- The strength of the magnet
- The MRI manufacturer
- The patient's head position
- The patient's movement in the machine
- The settings on the machine
- The end result is that the same person having an MRI twice, even in the same machine, will result in different pictures