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Cervical MRI scan

A cervical MRI (magnetic resonance imaging) scan uses energy from strong magnets to create pictures of the part of the spine that runs through the neck area (cervical spine).

MRI does not use radiation (x-rays).

Single MRI images are called slices. The images can be stored on a computer or printed on film. One exam produces many images.

How the Test is Performed

You will wear a hospital gown or clothes without metal zippers or snaps (such as sweatpants and a t-shirt). Make sure you take off your watch, jewelry and wallet. MRIs can pull on any metallic objects. Some types of metal can cause blurry images.

You will lie on a narrow table that slides into a tunnel-shaped scanner.

Some exams use a special dye (contrast). Most of the time, you will get the dye through a vein in your arm or hand before the test. The dye can also be given through an injection. The dye helps the radiologist see certain areas more clearly.

During the MRI, the person who operates the machine will watch you from another room. The test most often lasts 30 to 60 minutes, but may take longer.

How to Prepare for the Test

You may be asked not to eat or drink anything for 4 to 6 hours before the scan.

Tell your health care provider if you are afraid of closed spaces (have claustrophobia). You may be given a medicine to help you feel sleepy and less anxious. Your provider may suggest an "open" MRI, in which the machine is not as close to the body.

Before the test, tell your provider if you have:

- Brain aneurysm clips
- Certain types of artificial heart valves
- Heart defibrillator or pacemaker

- Inner ear (cochlear) implants
- Kidney disease or dialysis (you may not be able to receive contrast)
- Recently placed artificial joints or surgery with implanted metal screws and plates
- Certain types of vascular stents
- Worked with sheet metal in the past (you may need tests to check for metal pieces in your eyes)

Because the MRI contains strong magnets, metal objects are not allowed into the room with the MRI scanner:

- Pens, pocketknives, and eyeglasses may fly across the room.
- Items such as jewelry, watches, credit cards, and hearing aids can be damaged.
- Pins, hairpins, metal zippers, and similar metallic items can distort the images.
- Removable dental work should be taken out just before the scan.

How the Test will Feel

An MRI exam causes no pain. You will need to lie still. Too much movement can blur MRI images and cause errors.

The table may be hard or cold, but you can ask for a blanket or pillow. The machine makes loud thumping and humming noises when turned on. You can wear ear plugs to help block out the noise.

An intercom in the room allows you to speak to someone at any time. Some MRIs have televisions and special headphones to help the time pass.

There is no recovery time, unless you were given a medicine to relax. After an MRI scan, you can return to your normal diet, activity, and medicines.

Why the Test is Performed

The most common reasons for this test are:

- Severe neck, shoulder, or arm pain that does not get better after treatment
- Neck pain along with leg weakness, numbness, or other symptoms

A cervical MRI scan may also be done for:

- Birth defects of the spine
- Infection that involves your spine
- Injury or trauma to the spine
- Multiple sclerosis
- Severe scoliosis
- Tumor or cancer in the spine
- Arthritis in the spine

MRI works better than CT scan in diagnosing these problems most of the time.

A cervical MRI may also be done before spinal surgery.

Normal Results

A normal result means the part of the spine that runs through your neck and nearby nerves appears normal.

What Abnormal Results Mean

The most common reasons for an abnormal result are:

- Herniated or "slipped" disk (cervical radiculopathy)
- Narrowing of the cervical spine (spinal stenosis)
- Abnormal wear of the bones and cartilage in the neck (cervical spondylosis)

Abnormal results may also be due to:

- Degenerative changes due to age
- Bone infection (osteomyelitis)
- Disk inflammation (diskitis)
- Infection of the spine
- Multiple sclerosis
- Spinal cord injury or compression
- Spinal fracture
- Spinal tumor
- Abnormality from growth

Talk to your provider about your questions and concerns.

Risks

MRI uses no radiation. There have been no reported side effects from the magnetic fields and radio waves.

It is also safe to have MRI performed during pregnancy. No side effects or complications have been proven.

The most common type of contrast (dye) used is gadolinium. It is very safe. Allergic reactions to the substance are rare. However, gadolinium can be harmful to people with kidney problems that need dialysis. If you have kidney problems, please tell your provider before the test.

The strong magnetic fields created during an MRI can cause heart pacemakers and other implants to not work as well. It can also cause a piece of metal inside your body to move or shift. For safety reasons, please do not bring anything that contains metal into the scanner room.

Alternative Names

MRI - cervical spine; MRI - neck

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