

Title:

A Guide To Mri Scans

Word Count:

498

Summary:

As soon as Computerized Tomography or CT scans became accessible in the 1970s, they reformed the practice of neurology. They did the scans by transmitting x-ray streams all the way through the head at different positions and accumulating the x-ray streams on the other side that was not absorbed by the head. A sequence of images come into view on a computer monitor or on an x-ray plate as if the head had been sliced from side to side by a huge salami cutter and the slices were...

Keywords:

medical imaging equipment

Article Body:

As soon as Computerized Tomography or CT scans became accessible in the 1970s, they reformed the practice of neurology. They did the scans by transmitting x-ray streams all the way through the head at different positions and accumulating the x-ray streams on the other side that was not absorbed by the head. A sequence of images come into view on a computer monitor or on an x-ray plate as if the head had been sliced from side to side by a huge salami cutter and the slices were arranged out horizontally and in series.

After that, in the 1980s Magnetic Resonance Imaging or MRI scans came into the picture and astounded the medical society by not just taking an image of the brain itself, but by doing so in a new way. MRIs concentrate on water molecules, as an alternative to imaging the degree to which the various parts of the head absorb x-rays. To be more specific, MRIs represent the speed at which rotating hydrogen atoms of water molecules inside various parts of the brain either line up or fall out of arrangement with a powerful magnetic field. These different values of de-magnetization or magnetization are inputted into a pc. Slice like images are formed in a sequence and put on view on a computer screen or x-ray type film in hues of gray. Irregular compositions, like brain tumors or the signs of multiple sclerosis, are shown in their own hues of gray and are also identifiable by their contours and positions. More on this at <http://www.medicalimagingdevices.info>. Getting hold of a different set of images after a hypodermal injection of gadolinium, which is the MRI equivalent of x-ray

dye, also adds to analytical information.

For a patient, the incident of having a CT and of having an MRI very much looks a lot like each other. In both situations the patient lies flat on a plane table that moves into and out of a hole in the scanner that looks a lot like an oversize doughnut hole. In the MRI machine the doughnut hole is narrower, so patients suffering from claustrophobia have to notify their doctors if this might be a hitch. Noise is also an issue with the MRI machine. A loud noise is produced every time the radio frequency coils are turned off and on. For either of these two scans the technologist may need to inject a needle in the patient's vein to dispense a distinct substance.

A situation in which MRIs are basically not done is when the patient has a heart pacemaker. This is for the reason that the MRI machine's magnet might disturb the pacemaker and stop the heart. No image is so essential and important that this peril would be worth taking. Another situation in which an MRI is evaded is when the patient is gravely ill. A serious patient can be effectively examined and sustained while getting a CT scan, but not while getting an MRI.