

# Re: MRI Machines

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- *From:* Joerg <[notthisjoergsch@xxxxxxxxxxxxxxxxxxxxxxxx](mailto:notthisjoergsch@xxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Wed, 25 Jun 2008 10:12:33 -0700
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John Larkin wrote:

On Tue, 24 Jun 2008 19:30:42 -0400, RFI-EMI-GUY  
<[Rhyolite@xxxxxxxxxxxx](mailto:Rhyolite@xxxxxxxxxxxx)> wrote:

Jim Thompson wrote:

On Tue, 24 Jun 2008 11:34:07 -0700, John Larkin  
<[jjlarkin@xx](mailto:jjlarkin@xx)> wrote:

On Tue, 24 Jun 2008 13:28:46 -0400,  
RFI-EMI-GUY  
<[Rhyolite@xxxxxxxxxxxx](mailto:Rhyolite@xxxxxxxxxxxx)> wrote:

Well I spent a half hour of my life under the magnet of an "open" MRI machine yesterday. Still a bit claustrophobic. While I sort of understand the theory of the MRI, what I don't understand is what creates all the noise and racket. Any experts out there that can tell me whats going on?

Pulsed gradient coils. These are "small" 3-axis coils that sweep a gradient field across your innards, modulating the nuclear resonant frequencies of your molecules to produce the spatial resolution. These are generally water-cooled, with ballpark 20 KW constant-current drivers per axis, playing all sorts of weird waveforms.

Re: MRI Machines

They scanned my head last year, with the  
gradient coils around my head  
like some horror mask: noisy and boring.

John

A few years ago they scanned my sinuses.

I must admit a claustrophobic feeling also :-(

...Jim Thompson

I told the tech to give me a time check every so often so I wouldn't lose my mind, then I worked out a design problem in my head for 30 minutes as a distraction. I can put up with a lot of stuff but being inside or under that thing creeps me out. I keep having visions of oxygen cylinders getting sucked through the drywall and crushing me or the magnet quenching and getting burned in a puff of steam.

What an absurd fear. It quenches, a lot of cold helium blows out, the O2 in the room is displaced, and you die painlessly of asphixiation.

Look at the bright side: Until you lose consciousness you can speak at a high pitch like Mickey Mouse because of the helium. Should be fun ;-)

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Regards, Joerg

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