Interference with Pacemakers and Other Medical Devices

Potential interference
Radiofrequency energy (RF) from cell phones can interact with some electronic devices. This type of interference is called electromagnetic interference (EMI). For this reason, FDA helped develop a detailed test method to measure EMI of implanted cardiac pacemakers and defibrillators from cell phones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical Instrumentation (AAMI). This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from cell phone EMI.

FDA continues to monitor the use of cell phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

Precautions for pacemaker wearers
If EMI were to occur, it could affect a pacemaker in one of three ways:

- Stopping the pacemaker from delivering the stimulating pulses that regulate the heart's rhythm
- Causing the pacemaker to deliver the pulses irregularly
- Causing the pacemaker to ignore the heart's own rhythm and deliver pulses at a fixed rate

But based on current research, cell phones would not seem to pose a significant health problem for the vast majority of pacemaker wearers. Still, people with pacemakers may want to take some simple precautions to be sure that their cell phones don't cause a problem.

- Hold the phone to the ear opposite the side of the body where the pacemaker is implanted to add some extra distance between the pacemaker and the phone
- Avoid placing a turned-on phone next to the pacemaker implant (e.g. don’t carry the phone in a shirt or jacket pocket directly over the pacemaker)

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- Electromagnetic Compatibility

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