



## **Dental & Medical Procedures**

When scheduling any dental or medical procedure not related to your pacemaker or defibrillator, it is important to inform the dentists, doctors, and technicians that you have an implanted device. They may need to consult with your cardiologist or electrophysiologist (EP) before performing the procedure. This is true especially if the procedure is a new or unusual one. Even though most dental and medical procedures are unlikely to interfere with the function of your implanted device, some may require precautionary measure that prevent or minimize any interference.

Assuming the equipment is properly maintained and used as designed, many procedures are unlikely to interfere and can be performed, including:

1. Dental X-rays and dental procedures, including the use of dental drills and ultrasonic probes used to clean teeth.
2. Diagnostic X-rays, routine chest X-rays, and mammograms.
3. CT/CAT scans. The X-ray aspects of a CT scan will not have an effect on a pacemaker or defibrillator. Effects to a defibrillator from the electronic switching of the CT scanner unit have not been reported.
4. Diagnostic ultrasound, including bone density tests, when the transducer head is not directly over the implanted device. For therapeutic ultrasound, keep the transducer head 6 inches from pacemakers and 10 inches from defibrillators.

Some procedures produce high levels of electromagnetic interference (EMI). Prior consultation between the technician and your cardiologist or electrophysiologist is necessary in order to weigh the risks and benefits of the procedure. Possibly the adverse effects can be minimized, or your device could be programmed differently for the procedure. These procedures include:

1. Diathermy, (applying an electrical field to body tissue causing it to heat), cautery (used during most surgeries to stop bleeding), lithotripsy (used to break down kidney stones).
2. Transcutaneous Electrical Nerve Stimulators (TENS is used for treating pain), when used on the torso.

(over)

3. Electrolysis (for removal of unwanted hair), depending on the method used, the location, and the placement of the electrical grounding plate if used.
4. Radiation Therapy, depending on the amount of cumulative radiation exposure. Usually the doctors can direct the radiation beam to miss the implanted device. If not, the pacemaker or defibrillator could be moved, or a new device implanted at an alternate site.
5. MRI (Magnetic Resonance Imaging) is not recommended for individuals with pacemaker and defibrillators.

On occasion, your doctor, dentist, or other medical personnel may request the technical assistance of the manufacturer of your pacemaker or defibrillator. You can help by knowing the model number and the manufacturer name of your device. This information can be obtained from your device identification card. Carrying it with you at all times allows for quick access.