

# MEDICAL AND DENTAL PROCEDURES ELECTROMAGNETIC COMPATIBILITY GUIDE

For Implantable Cardiac Devices

## MEDICAL AND DENTAL PROCEDURES

Many medical procedures will not affect your heart device; however, certain medical procedures can result in serious injury, damage to your heart device, or device malfunction. Before undergoing any medical procedure, it is recommended that you advise your treating doctor or dentist that you have an implanted heart device and consult with your heart doctor to evaluate any possible associated risk.

### Acceptable

If the item is used as intended and in good working condition, there is no known risk:

- Acupuncture – no electrical stimulus
- Acupuncture DC – direct current
- Bone Density Test (x-ray)
- Bone Density Ultrasound – on heel or hand
- Bone Growth Stimulator – direct current
- Capsule Endoscopy
- Colonoscopy – diagnostic only
- Dental Apex Locator (root locator)
- Dental Drills
- Dental Pulp Tester
- Dental Ultrasonic Scalers/Cleaners
- Dental X-Ray
- Diagnostic Ultrasound (sonogram)
- Diagnostic x-rays (fluoroscopy)
- Digital Infrared Thermal Imaging (DITI)
- Echocardiogram
- Enhanced External Counter Pulsation Therapy (EECP)
- Electrocardiogram (ECG/EKG)
- Electroencephalography-EEG
- Electronystagmography (audiology – ENG)
- Hearing Aid (in or behind ear)
- Heart Rate Monitor
- Iontophoresis (drug patch)
- Laser Surgery

- Lasik Eye Surgery
- Lie Detector Test
- Mammography
- Medical Helicopter
- Nuclear Stress Test
- PH Capsules
- Positron Emission Tomography (PET scan)
- Relief Band®
- Sleep Apnea Machine

### Acceptable with Precautions

Inform your treating physician that you have a heart device implanted and/or consult with your heart doctor/clinic.

Medical procedures that require some precautions:

- Ablation (specifically, microwave ablation and radiofrequency ablation)
- Acupuncture with AC-Alternate Current Stimulus
- Argon Plasma Cautery
- Blood bag dielectric sealing equipment
- Bone Growth Stimulator Alternating Magnetic Field
- Bone Growth Stimulator introducing AC current
- Colonoscopy-Polyp removal
- Computerized axial tomography (CT or CAT) scan
- Electroconvulsive Shock Therapy (ECT)
- Electrolysis
- Electrosurgery and other procedures that use an electric probe to control bleeding, cut tissue, or remove tissue
- EMG Electromyography – single stimulus
- EMG Electromyography – automated sequence
- External defibrillation, AED, and elective cardioversion
- Hyfrecator
- Hyperbaric Oxygen Therapy (HBOT)
- Interferential Electrical Current Therapy
- Lithotripsy
- Magnetic therapy
- Mechanical Ventilation with a Respiration Rate Monitor
- Microcurrent Electrical Therapy (MET) Alpha-Stim 100™\*
- Muscle Stimulators and other devices sending current into your body
- Neutron Radiation
- Radiation Therapy (external x-ray, Gamma Knife™\* or radiosurgery)
- Radiotherapy (including high-energy radiation therapy)
- Stereotaxis
- Therapeutic Ultrasound
- Transcranial Magnetic Stimulation (TMS)

- Transcutaneous Electrical Nerve Stimulation (TENS)
- Neuro Muscular Electrical Stimulation (NMES)
- Transmitting Loop for Digital Hearing Aid
- Transurethral Needle Ablation (TUNA™\* therapy)
- Transurethral Microwave Therapeutic Device (TUMT)
- TURP Prostate Test (transurethral resection of the prostate)
- Virtual Colonoscopy performed with CAT Scan (CT scan)

### **Not Recommended**

- Diathermy (high frequency, short wave, and microwave)
- Magnetic Resonance Angiography (MRA)\* for non MR-conditional devices
- MRI\*
- Virtual Colonoscopy with MRI\* for non MR-conditional devices

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Unless the device is MR-Conditional, then see MRI guidelines for that device. Visit [www.mrisurescan.com](http://www.mrisurescan.com) for more information. See [FAQ](#).