



**Standard Letter**  
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## **DIATHERMY**

Rev B, 01-AUG-2008, Page 1 of 1

### **PACEMAKER (IPG – IMPLANTABLE PULSE GENERATOR)**

### **DEFIBRILLATOR (ICD – IMPLANTABLE CARDIOVERTER DEFIBRILLATOR)**

#### **WARNING: DO NOT use High Frequency, Short-wave, or Microwave Diathermy.**

People with metal implants such as pacemakers, defibrillators and/or leads should not receive high frequency (short-wave) or microwave diathermy treatment. The interaction between the implant and diathermy may cause tissue damage, fibrillation, or damage to the device components, which could result in serious injury, loss of therapy, and/or the need to reprogram or replace the device.

In the United States, the term ‘diathermy’ typically refers to the heating of body tissues due to their resistance to the passage of high-frequency electromagnetic radiation or ultrasonic waves. There may also be references to the term ‘surgical diathermy’ which generally refers to electrosurgery; therefore, the term ‘diathermy’ is not always precise. Medtronic refers to ‘diathermy’ as therapeutic tissue heating.

Diathermy equipment generally falls into two categories: high frequency, and microwave.

1. High frequency (also called short-wave) diathermy operates at 13.5 or 27 MHz and generates a strong electromagnetic field by either a magnetic or capacitive applicator. **High Frequency or Short-wave Diathermy should NOT be used.**
2. Microwave diathermy heats tissue by exposing the treated tissue to a strong electromagnetic field. A frequency of 2450 MHz is generated by most microwave diathermy units. Some older units have operating frequencies of 434 or 915 MHz. **Microwave Diathermy should NOT be used.**