Medtronic
Alleviating Pain · Restoring Health · Extending Life

STANDARD LETTER
CRDM Technical Services U.S.
Mounds View, MN
Brady (800) 505-4636
Tachy (800) 723-4636
Instruments (800) 638-1991

MAGNET USE FOR SUSPENDING MEDTRONIC ICD DETECTION

DEFIBRILLATOR (ICD – IMPLANTABLE CARDIOVERTER DEFIBRILLATOR)

BI-VENTRICULAR DEFIBRILLATOR (CRT-D – CARDIAC RESYNCHRONIZATION THERAPY DEFIBRILLATOR)

(The notation of 'ICD' refers to both ICD and CRT-D devices for purposes of this document)

Patients with ICDs may be subjected to a procedure where equipment is used that produces ElectroMagnetic Interference (EMI). Electrosurgery (cautery) equipment is an example of an EMI producer.

Some types of EMI are not filtered out by the ICDs sensing circuitry and may be erroneously interpreted as a rapid heart rate. If persistent, this EMI could cause the tachyarrhythmia detection criterion to be met and a tachyarrhythmia therapy to be inappropriately delivered.

A magnet may be used to temporarily suspend detections when it is placed over the ICD correctly and may be used for **all Medtronic ICDs**.

Magnet Description: Model 9466T or part number 174105, is a blue-coated, ring-shaped permanent ferrous magnet with minimum field strength of 90 Gauss when measured 1.5 inches from either flat side of the magnet (see Figure 1).

Figure 1: 174105-2 Magnet

Warnings & Precautions:

- **External defibrillation and pacing options should be immediately available when performing electro-surgical procedures with ICD/CRT-D patients.** Regardless of the magnet presence, electrocautery/electrosurgery application closer than **15 cm (6 inches)** from the defibrillator/lead system is not recommended as per device labeling.
- **Continuous monitoring of the rhythm is recommended. If Ventricular Tachycardia (VT) o**r **Ventricular Fibrillation (VF) develops, remove the magnet to restore permanently programmed detection and therapy settings or use external rescue.**
- **The magnet response will result in temporary suspension of tachyarrhythmia detection in all Medtronic defibrillators.** The ICD/CRT-D will not interpret the EMI as an arrhythmia as detection is suspended while the magnet is in place.

Instructions for Magnet Use:

1. **Locate the patient's Medtronic ICD.**
2. **Place the magnet directly over the Medtronic ICD (secure magnet to patient to prevent dislodgement from device). Leave the magnet in place for the duration of the procedure.**
3. **In this "magnet" mode, tachyarrhythmia detection and therapy is suspended and the ICD will not interpret EMI, e.g. from cautery, as an arrhythmia.**
4. **If the device has Patient Alert™/ Care Alert™ Self-monitoring, you may hear a constant tone for 10-30 seconds when the magnet is first applied. If a pulsing tone or high/low alternating tone is heard with magnet application, contact the patient's cardiologist or electrophysiologist.**
5. **If a tachyarrhythmia occurs during the procedure and intervention is required, remove the magnet to restore permanently programmed detections and therapy or use external rescue. Removal of the magnet by at least two feet (61 cm) returns the device to permanently programmed operation.**
6. **Magnet application does not affect the programmed bradycardia pacing mode. EMI from cautery could cause inhibition of pacing due to oversensing. If inhibition is noted on the ECG monitors, use short, intermittent and irregular bursts of cautery (e.g. less than one second in duration).**
7. **Magnet removal returns the device to permanently programmed operation. Keep the magnet at least two feet (61cm) away from the implanted ICD device.**
8. **Perform the following steps to ensure an electrical reset has not occurred. This can be performed on all Medtronic ICDs, except Jewel® AF 7250, Micro Jewel II™ 7223Cx, Micro Jewel® 7221 and Gem III®AT 7276.**
    a. **After 10 seconds of magnet removal, re-apply the magnet to the ICD and verify that no tone or a 10-30 second constant tone results. This indicates no electrical reset has taken place. If a pulsing tone or high/low alternating tone is heard with magnet application, an electrical reset may have occurred, then call Medtronic.**
    b. **Removal of the magnet returns the device to permanently programmed operation.**

Call Medtronic for sterilization instructions.

These recommendations apply only to Medtronic ICDs/CRT-Ds. Contact the appropriate device manufacturer for technical assistance.

Caution: Federal Law (USA) restricts this device to sale by or on the order of a physician

See device manual for detailed information regarding implant procedure, indications, contraindications, warnings, precautions and potential complications/adverse events.

To order a magnet, request part number 174105-2.