

## Urgent Medical Device Safety Notification

### Risk Associated with Insufficient Recharging of the Medtronic RestoreSensor® Implantable Neurostimulators, Models 37714 and 97714

Dear Healthcare Professional,

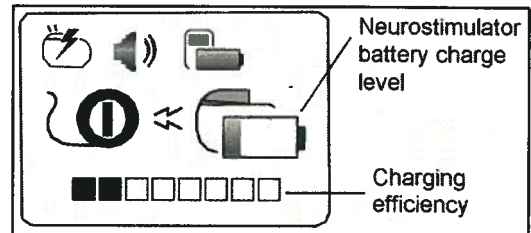
Medtronic has confirmed four instances of loss of therapy during recharging of a RestoreSensor implantable neurostimulator, for a rate of 0.007% of devices distributed worldwide. By design, stimulation therapy turns off when battery voltage depletes below 3.575 volts. In the reported occurrences, a charging session was terminated prior to obtaining a recharge threshold voltage of 3.615, which triggered a rapid battery depletion state. As a result of the rapid battery discharge state, the implanted neurostimulators depleted to 1.925 volts (a state of overdischarge) in one to two days rather than the typical 30 days. Insufficient coupling (Charging Efficiency) between the recharger and the implanted neurostimulator during the recharge session was found to be a key factor in the reported events.

Note that once a device is in the over discharge state, therapy is interrupted with return of patient symptoms and can only be restored using the Physician Recharge Mode of the recharger. As described in labeling, if three occurrences of overdischarge occur, the neurostimulator will trigger end of life, and must be replaced to restore therapy.

#### Recommendations:

Advise patients to follow current recharge instructions, paying particular attention to **Charging Efficiency** and **Battery Charge Level** indicators on the recharger.

- Check the neurostimulator battery charge level once a day or more frequently as needed.
- Keep the neurostimulator sufficiently charged to maintain therapy. It can be charged at any time; you do not need to wait for a low battery message.
- During neurostimulator recharging, monitor the **Charging Efficiency** row and adjust the antenna to obtain as many solid black boxes as possible. If only two boxes are filled in (6 or more boxes are empty) adjust the antenna to improve the signal strength between the neurostimulator and recharger.
- During recharging, ensure the neurostimulator **Battery Charge Level** is at least 25% before ending the charge session. However, a full battery charge is ideal.



#### Additional Information:

The US Food and Drug Administration (FDA) has been made aware of this communication. If you have questions please contact Medtronic Neuromodulation Technical Services at 1-800-707-0933 weekdays 7am - 6pm CST. Please report any malfunction or adverse event related to a device to Medtronic Neuromodulation Technical Services and to FDA's MedWatch Program. ([www.fda.gov/medwatch](http://www.fda.gov/medwatch)). **Thank you for your continued support. We apologize for any inconvenience this may cause. We remain committed to continuing to improve our product performance and services to enable you to manage your patients in a safe and effective manner.**

Sincerely,

[Redacted Signature]  
Michael Crader  
Vice President Quality  
Medtronic Neuromodulation

Enclosed: Physician Reply Form