

## **Safety Alert: Diathermy (Therapeutic Ultrasound)**

DO NOT use or receive shortwave diathermy, microwave diathermy or therapeutic ultrasound diathermy (all now referred to as diathermy) once you are implanted with any type of Medtronic neurostimulation system.

Diathermy treatments are used by a variety of health care professionals, including physical therapists, nurses, chiropractors, dentists, sports therapists, and others. Health care professionals may refer to diathermy using the term "deep heat" or similar terms.

Diathermy means deep heat, but these devices may also be used in a way that causes little or no heating. Diathermy does **not** include ultrasonic imaging or electrocautery devices.

Diathermy that uses these forms of energy (shortwave, microwave or ultrasound) can cause permanent nerve or tissue damage in patients with a neurostimulation system even if the diathermy is set at power levels that do not cause deep heating.

Diathermy are treatments that deliver energy to treat specific areas of the body. These treatments are typically used for the following purposes:

- Relieve pain, stiffness and muscle spasms.
- Reduce joint contractures.
- Reduce swelling and pain after surgery.
- Promote wound healing.

The contraindication with implantable neurostimulation devices applies to all forms of diathermy.

Use of diathermy on patients with any implanted neurostimulation device can cause heating at the tissue/stimulation electrode interface, which under certain circumstances can result in permanent tissue or nerve damage. Such tissue damage could lead to permanent injury or even death.

This contraindications applies:

- Regardless of where the diathermy treatment is targeted on the patient's body in relation to the implanted stimulation system.
- Regardless of whether it is used to deliver heat or no heat.
- Regardless of whether the Medtronic neurostimulation system is turned "on" or "off".
- If any individual components of the neurostimulation system remain implanted in the body.