

## FACT SHEET

# Abbott's BurstDR™ Stimulation

## For treating chronic pain



### CHRONIC PAIN

Chronic pain is a largely under-treated and misunderstood disease that affects millions of people worldwide. It is defined as moderate to severe pain that persists for six months or longer than would generally be expected for recovery to a specific disease, injury or surgery. According to the National Institutes of Health, 90 million people in the U.S. suffer from chronic pain. The American Pain Foundation estimates that chronic pain costs approximately \$100 billion per year in lost work time and health care expenses. In their search for relief, some patients often endure inadequate treatments and struggle with prescription opioid painkillers.

### 'PACEMAKER FOR PAIN'

Spinal cord stimulation (SCS) is a proven therapy recommended by physicians to help patients manage their chronic pain and improve quality of life. Spinal cord stimulators are implanted devices that are similar in function and appearance to cardiac pacemakers, except that the electrical pulses are sent to the spinal cord instead of the heart. These "pacemakers for pain" interrupt the pain signals' pathways to the brain by delivering mild electrical pulses. Neurostimulation has shown to provide relief so patients can focus on their lives instead of their pain.

### BURSTDR™ STIMULATION

BurstDR stimulation, exclusively from Abbott, is clinically proven to provide superior outcomes for patients with chronic pain over traditional SCS therapy known as tonic stimulation. <sup>1</sup> A novel waveform, BurstDR stimulation was created by doctors to mimic natural occurring patterns found in the body. <sup>2</sup> This advanced technology is believed to address both physical pain and its effect on suffering or emotional pain. <sup>2</sup>

The brain receives information in two ways: neurons travel through the central nervous system at steady, singular intervals (known as tonic waves) or in clustered "burst" waves. By mimicking the burst firing of the brain, researchers believe Abbott's BurstDR stimulation more naturally targets both the brain's medial (emotional) and lateral (physical) pathways, affecting a patient's holistic response to their pain. <sup>2</sup>

Traditional tonic SCS has been proven to offer meaningful chronic pain relief for many patients, but often results in unwanted paresthesia (a tingling sensation) and inadequate pain control. Some patients may also see a reduced benefit from traditional SCS therapy over time. BurstDR stimulation has produced consistent, superior and replicable results in clinical settings around the world. More than 600 patients have received BurstDR therapy globally. In multiple studies of patients exposed to both BurstDR stimulation and traditional tonic stimulation, 87 percent preferred BurstDR stimulation. <sup>3</sup>

### IMPROVING PATIENT CARE WITH BURSTDR THERAPY

Abbott is committed to patient-centric innovation in neuromodulation. The market leader in chronic pain, Abbott is the only company in the world approved to offer BurstDR stimulation. The system is recharge free, meaning patients do not need to be reminded of their condition and pause from their daily activities to charge their battery as with other systems. Using Bluetooth wireless connectivity, patients can feel empowered by controlling their stimulation levels through a familiar Apple iPod Touch device.

BurstDR stimulation is available to all patients receiving new Proclaim™ Elite SCS spinal cord stimulation systems as well as patients previously implanted with upgradeable Prodigy MRI™, Protégé MRI™ and Proclaim Elite SCS systems. Select populations of patients may also upgrade their SCS systems to deliver BurstDR stimulation without additional surgery.

### DRIVING INNOVATION WITH CLINICAL EVIDENCE

BurstDR stimulation was evaluated in a clinical trial known as the SUNBURST study, enrolling 100 patients in 20 centers across the U.S. After eight years of use in the clinical setting, more than 13 studies have shown that BurstDR delivers:

- **Superior pain relief:** Patients receiving BurstDR stimulation achieved superior pain relief and greater treatment success when compared to traditional tonic SCS.
- **Patient preference:** More than 8 out of 10 patients preferred BurstDR stimulation to traditional tonic SCS for the treatment of their chronic pain.
- **Reduced paresthesia:** The vast majority (91 percent) of patients reported a decrease in paresthesia during treatment with BurstDR stimulation relative to tonic SCS. In addition, 65 percent of SUNBURST patients were paresthesia free while using Burst stimulation.

With clinical superiority and real-world replication, BurstDR stimulation provides consistent outcomes to offer relief from chronic pain and improve patients' quality of life.

Important safety information: <https://abbo.tt/2O37kZO>

*\*Note: iPad mini and iPad Touch are registered trademarks of Apple, Inc. Bluetooth is a registered trademark of Bluetooth SIG, Inc.*

<sup>1</sup> Deer T, Slavin KV, Amirdelfan K, et al. Success Using Neuromodulation With BURST (SUNBURST) Study: Results From a Prospective, Randomized Controlled Trial Using a Novel Burst Waveform. *Neuromodulation*. 2017.

<sup>2</sup> De Ridder, D., Vanneste, S., Plazier, M., & Vancamp, T., (2015). Mimicking the Brain: Evaluation of St. Jude Medical's Prodigy Chronic Pain System with Burst Technology. *Expert Review of Medical Devices*, 12(2), 143–150.

<sup>3</sup> Deer, T. (2018). Randomized, Controlled Trial Assessing Burst Stimulation for Chronic Pain: 2-Year Outcomes from the SUNBURST Study. Presented at NANS 2018.

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