

Medtronic at the forefront of new era for spinal cord stimulation technology

Medtronic plc, a global leader in healthcare technology, is pleased to announce the availability of the Inceptiv™ closed-loop rechargeable spinal cord stimulator (SCS) for the treatment of chronic pain. Inceptiv is the first Medtronic SCS device to offer a closed-loop feature that senses biological signals along the spinal cord and automatically adjusts stimulation in near real time, keeping therapy in harmony with the motions of daily life.

"Pain is a deeply personal experience, and stimulation therapy should cater to each patient's needs in real-time," said Dr. Jill Osborn, PhD, MD, FRCPC, Clinical Associate Professor at the Department of Anesthesiology University of British Columbia. "I am very excited to see how Inceptiv responds to the body's signals and adjusts almost instantaneously, marking a significant advancement in chronic pain treatment."

Traditional fixed-output SCS devices deliver constant, mild electrical impulses that disrupt pain signals before they reach the brain. As patients go about their daily lives, certain movements such as laughing, bending, or sneezing may result in brief moments of uncomfortable overstimulation. This in turn may lead some patients to turn down their device's stimulation output, resulting in a suboptimal therapy experience.

By contrast, Inceptiv SCS senses biological signals and consistently maintains the physician's prescribed stimulation that is tailored to a patient's needs. Specialized circuitry and a proprietary algorithm detect ECAPs (Evoked Compound Action Potentials), signals generated by the spinal cord in response to electrical stimuli. ECAPs are a direct measure of how much nerve tissue is activated in the spinal cord and can be used to inform real-time adjustments to stimulation. Inceptiv SCS senses the body's response to stimulation and increases or decreases stimulation to maintain prescribed settings as determined by the physician.

"It's a new era for spinal cord stimulation technology, and Medtronic is at the forefront," said Rob Clifton, president, Medtronic Canada. "Canadian patients dealing with chronic pain deserve personalized and effective relief, and the comfort that the thinnest device on the market can provide. We are proud to offer the most cutting-edge solution available today."

The Inceptiv system delivers additional advantages beyond its closed-loop capability. Inceptiv offers improved access to diagnostic imaging, with 1.5T and 3T full-body MRI access and is the only Health-Canada licensed closed-loop spinal cord stimulator that offers full-body 3T MRI access.⁴ Up to 84% of SCS-implanted patients are expected to need at least one MRI within five years of implant.¹ It is the world's thinnest fully implantable SCS device, designed for patient comfort.⁴ In addition, Inceptiv SCS allows the option of multiple types of waveforms, including Medtronic's proprietary DTM™ SCS therapy, which demonstrated an 84% responder rate at 12 months in a large, multicenter randomized controlled trial (RCT).^{2,3}

For more information, visit [Medtronic.com/Inceptiv](https://www.medtronic.com/inceptiv).

About Medtronic

Bold thinking. Bolder actions. We are Medtronic. Medtronic plc, headquartered in Dublin, Ireland, is the leading global healthcare technology company that boldly attacks the most challenging health problems facing humanity by searching out and finding solutions. Our Mission — to alleviate pain, restore health, and extend life — unites a global team of 95,000+ passionate people across 150 countries. Our technologies and therapies treat 70 health conditions and include cardiac devices, surgical robotics, insulin pumps, surgical tools, patient monitoring systems, and more. Powered by our diverse knowledge, insatiable curiosity, and desire to help all those who need it, we deliver innovative technologies that transform the lives of two people every second, every hour, every day. Expect more from us as we empower insight-driven care, experiences that put people first, and better outcomes for our world. In everything we do, we are engineering the extraordinary. For more information on Medtronic, visit www.Medtronic.ca, and follow Medtronic on [LinkedIn](#).

Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.

Contacts:

Monika Paquette

Public Relations

+1-416-579-2823

Ryan Weispfenning

Investor Relations

+1-763-505-4626

¹ Desai, Mehul J., et al. "The rate of magnetic resonance imaging in patients with spinal cord stimulation." Spine, vol. 40, no. 9, 2015, <https://doi.org/10.1097/brs.0000000000000805>.

² Fishman, M, Corder, H, Justiz, R, Provenzano, D, Merrell, C, Shah, B, et al. Twelve-Month results from multicenter, open-label, randomized controlled clinical trial comparing differential target multiplexed spinal cord stimulation and traditional spinal cord stimulation in subjects with chronic intractable back pain and leg pain. Pain Pract. 2021; 21: 912– 923

³ DTM™ SCS outcomes demonstrated using open-loop SCS

⁴ Data on file