



UHealth Offers New Treatment for Painful Diabetic Neuropathy

A new spinal cord stimulation treatment for painful diabetic neuropathy (PDN) is now available at UHealth – the University of Miami Health System. Patients with this common complication of diabetes experience chronic pain, including numbness, burning, and stabbing in the hands and feet.



The HFX for PDN Senza system provides mild high-frequency pulses directly to the spinal cord, interrupting the pain pathway.

“This new technology from Nevro is an important addition to



the wide array of medical and interventional therapies we offer patients to manage their pain,” said Dennis Patin, M.D., who has decades of experience in neuromodulation procedures as associate professor in the Department of Anesthesiology, Perioperative Medicine, and Pain Management at the University of Miami Miller School of Medicine.

A study on the effectiveness of Nevro’s 10,000 hz HFX for PDN system, which was published in the journal *JAMA Neurology* in April, found that patients experienced an average of 76% pain relief with the device, which was approved by the U.S. Food and Drug Administration (FDA) in July.

Traditional pain management options include medications, physical therapy, and injections, but these therapies are inadequate for long-term relief in many patients.

A Boost for Patient Compliance

“About half of patients stop taking medications, so it is exciting to be able to offer a new long-term treatment for chronic pain,” said Dr. Patin, who has been implanting nerve stimulators at UHealth for more than 25 years and performed the first dorsal root ganglion nerve stimulation procedure in Florida.

Dr. Patin noted that spinal cord stimulation devices have been used since the 1960s for intractable pain in the back, legs, feet, or other areas of the body. Currently, Medtronic, Abbott, Boston Scientific and Nevro are leading manufacturers of these implantable systems.

“Each device has a different mechanism of action, with varying frequencies and wavelengths,” he said. “When programmed appropriately for individual patients, they can be very



effective for long-term pain relief.”

Battery-Powered Pulses to the Spinal Cord

Stimulators like the HFX for PDN Senza system provide mild high-frequency pulses directly to the spinal cord interrupting the pain pathway. The devices are placed near the spine in a quick and minimally invasive procedure. Powered by rechargeable batteries, the devices can last 10 years or more, according to Dr. Patin.

“Patients simply put on fanny pack that transmits power to the batteries in the device,” he added. “The recharging process is easy to use, and patients don’t feel a thing.”

Along with managing pain, Dr. Patin said this study and device was shown to improve sensory function.

“An improvement in the sensory function can lead to greater awareness of minor injuries to the feet and legs,” he said. “Early identification of problems can lead to faster and more effective wound-healing therapies – an important consideration for many patients with diabetes.”

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