

Advancing Health

A CASE STUDY from the MedStar Colorectal Surgery Program

Sacral Nerve Stimulation Therapy: **A Minimally Invasive Solution to Fecal Incontinence**

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Abstract

Fecal incontinence is a potentially life-altering problem that is frequently unresponsive to conservative medical management and can negatively affect quality of life. In this case study, sacral nerve stimulation therapy was recommended to a female patient with a long-standing history of fecal incontinence nonresponsive to conservative medical therapies. The patient underwent a minimally invasive procedure to place a sacral nerve stimulation device (MedTronic InterStim™). Two years post-procedure, she continues to experience significantly fewer and less extensive incontinence episodes.



MedStar Health

CASE STUDY

Sacral Nerve Stimulation Therapy

Patient Presentation

- A 49-year-old female with a 10 year history of fecal incontinence. Two to three incontinent episodes daily of solid and liquid stools and gas.
- Unremarkable medical history.
- Past surgical history: anal overlapping sphincteroplasty four years prior without substantial improvement of symptoms.
- Treatment history: Conservative medical therapy, including anti-spasmodics and cholestyramine, tried and failed.
- Assessment: Evaluation revealed a normal colonoscopy and the rectal ultrasound with anal manometry identified a 25 percent anterior sphincter defect.

Diagnosis

- Fecal incontinence unresponsive to medical therapy.

Treatment

- Minimally invasive placement of a sacral nerve stimulation device (Medtronic InterStim), an implantable system, placed through S3 foramen, that sends low-level electrical pulses near the nerves of the sacral plexus, producing a physiological effect on the organs innervated by those nerves. Trial placement used for two weeks, followed by patient assessment.

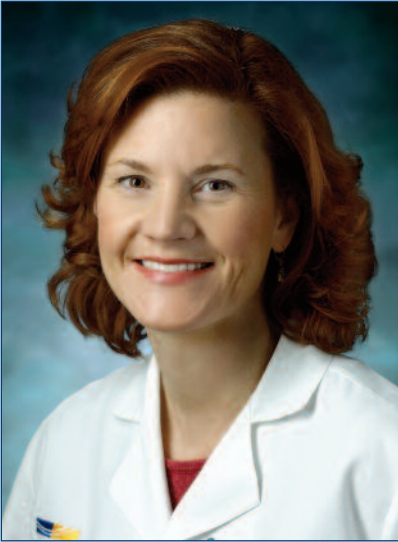
- With direct neuromodulation, there is the potential to alter colonic motility, pelvic floor and anal sphincter function and rectal sensation.

Outcomes

- Two weeks post-implantation of temporary device: Patient's bowel movement diary showed a 50 percent improvement of her symptoms. On this basis, she underwent permanent placement of the implanted Medtronic InterStim sacral nerve stimulation device.
- One month post-procedure: Significant improvement in the frequency of fecal incontinence, with episodes of incontinence limited to only four in a month.
- Two years post-procedure: Continued substantial symptom relief, averaging just one mild fecal-incontinent episode per week.

Conclusion

- Fecal incontinence is a potentially life-altering problem and sacral nerve stimulation has been shown to help approximately 80 percent of appropriate candidates.
- The option of a trial period before permanent implantation makes it a unique form of therapy.



Jennifer Ayscue, MD

"It was very satisfying to make a difference for this patient. She had suffered for 10 years with no relief, and sacral nerve stimulation restored her quality of life. It is just one of the advanced technologies that our team offers for highly complex disorders and diseases of the colon, rectum and anus. We work collaboratively to ensure that your patient receives not only high-quality care, but also the kind of support that you would want for a member of your own family."

Leading the Way:

The Area's Most Advanced Team of Fellowship-Trained and Board-Certified Colorectal Surgeons

Our team of eight fellowship-trained, board-certified colon and rectal surgeons is the most experienced in the Greater Washington region and is nationally recognized for its expertise, commitment to excellence and professional leadership. Our colorectal specialists treat the most advanced, complex diseases and disorders of the colon, rectum, and anus, including patients with multiple co-morbidities such as heart disease. All of the surgeons work collaboratively with other physicians to evaluate treatment options and to develop a comprehensive, integrated and coordinated care plan with each patient.

Specializing in minimally invasive surgeries when possible, MedStar's colorectal surgeons use state-of-the-art techniques that have reduced post-operative pain and shortened post-operative recovery time.



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- MedStar Montgomery Medical Center, 18109 Prince Philip Dr., Olney
- MedStar Southern Maryland Hospital Center, 7501 Surratts Rd., Clinton
- MedStar St. Mary's Hospital, 25500 Point Lookout Rd., Leonardtown
- 5530 Wisconsin Avenue, Suite 1640, Chevy Chase
- 12158 Central Avenue, Suite 700, Mitchellville

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- MedStar Washington Hospital Center, 110 Irving St., NW
- MedStar Georgetown University Hospital, 3800 Reservoir Rd., NW
- 2021 K Street, Suite 420

Virginia

- 7601 Lewinsville Rd., Suite 450, McLean

For more information, please call the MedStar Colorectal Surgery team at **202-877-8484** or visit **[MedstarWashington.org/Colorectal](https://www.MedstarWashington.org/Colorectal)**.

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