Nerve stimulation by a treatment called sacral neuromodulation can help some people control their bowel and bladder problems. A Medtronic-sponsored, prospective, multicenter trial conducted under an FDA-approved investigational protocol with 120 implanted patients demonstrated a significant improvement in fecal incontinence symptoms and quality of life.

For the 106 implanted patients with complete follow-up diaries at 12 months:

- 41% achieved complete continence
- 83% achieved a 50% or greater reduction in incontinent episodes per week
- Overall quality-of-life scores improved significantly from baseline, as measured by the four scales of the Fecal Incontinence Quality of Life instrument

Similar results are reported by Royal London Hospital QOL Questionnaire at 6-month follow-up (p<0.05). Score range 0-100.
How does Sacral Neuromodulation work?

A small device is surgically implanted in the buttocks. It's about the size of a stopwatch. This device stimulates the appropriate nerves by using mild or moderate electrical impulses. By doing this, it can help restore coordination between brain, pelvic floor, bladder or bowel, and sphincter muscles.

- Sacral nerve stimulator therapy is an outpatient procedure that is performed in the operating room.
- Your doctor will implant a thin, flexible wire (also known as a "lead," and pronounced "leed") near your tailbone. The wire is taped to your skin and connected to a small external device which you’ll wear on your waistband.
- The external device sends mild electrical pulses through the wire to nerves near your tailbone. The stimulation may get your bowel working the way it is supposed to. During the trial assessment, you’ll wear an external neurostimulator on your waistband for several days. You can continue many of your low- to moderate-level daily activities with caution. You can usually continue to work throughout your trial assessment if your job doesn’t require strenuous movement.
- You’ll be asked to document your symptoms. The trial assessment will help your doctor determine the next course of treatment for your bowel control problems. An authorized medtronic representative, your doctor or nurse will give you information about operating the test stimulator. He or she will also tell you about any precautions or activity restrictions related to the trial assessment.
- If neurostimulation has worked for you in the trial period, a flexible wire (also known as a “lead” and pronounced “leed”) and a neurostimulator are implanted under the skin permanently. This is done during a minimally invasive outpatient procedure.
Is Sacral Nerve Stimulation Right for You?

Sacral nerve stimulation is designed to minimize the symptoms of bowel incontinence, including the leakage of liquid or solid stools. Prior to undergoing a permanent implantation of the neurostimulation device patients undergo a trial assessment. You'll spend some time recording your toilet habits in a diary form to use as a base for future comparison. This lets you try neurostimulation to see if it is right for you without making a long-term commitment. The trial assessment may take a few to several days to complete.

Testing phase

The doctor will put the lead into your lower back at the sacral region. An external pulse generator will be connected to the lead. This device is worn on a belt. It will be switched on. You'll go home and go about your daily life with a portable external stimulator attached to the lead. You'll continue to record your toilet habits during this test in a new diary. Its electrical impulses are identical to that of the implanted sacral nerve stimulation device.

After a few days of the home test, your doctor will explain the results to you. These will be based on your diaries before and during the test.

If you want to stop using the therapy you can have the device permanently removed.

Benefits of Sacral neuromodulation

Sacral neuromodulation (also called sacral nerve stimulation) is reversible and can be discontinued at any time. People who have had Sacral neuromodulation for fecal incontinence have reported:

- Improved quality of life
- Complete freedom from incontinence episodes or a dramatic reduction
- Freedom to live without worry of leaks

The evaluation involves placing a thin wire under the skin in your lower back. The wire is connected to a small external neurostimulator, which you wear on a belt. The neurostimulator sends mild electrical pulses through the thin wire to your sacral nerves. Those pulses may get your bladder and/or your bowel working the way it's supposed to. During the evaluation, which typically lasts several days, you can continue many of your daily activities, with caution.

Risks of Therapy

As with any medical treatment, some people may experience some of the following side effects with sacral neuromodulation:

- Pain where the device is implanted
- The electrodes change position in the body
- Infection or skin irritation
- Technical problems
- Adverse changes in bowel or bladder function
- Numbness at the neurostimulator site
- Undesirable stimulation or sensations.

The number of people with these side effects has been very low and in almost all cases they were solved.
Living With ® Therapy

After your Medtronic sacral nerve stimulator has been implanted, and the surgical cuts are healed, you will be able to resume your regular activities. People with a Medtronic neurostimulator have been able to do things they were not able to do before, such as go to restaurants, take long walks through the park, see films at the cinema or travel.

You will be given a hand-held patient programmer and an identification card after your short, minimally-invasive surgery. Although you will usually not use the patient programmer, it allows you to adjust the level of the stimulation and to turn your neurostimulator on or off.

Medical procedures and equipment

It is a good idea to carry your identification card with you at all times and show it to medical staff before you undergo tests or treatments. Most procedures and equipment will not affect or be affected by your neurostimulator. But caution is needed with some equipment, such as magnetic resonance imaging, monitors and diathermy equipment.

Antitheft devices

You should also let airport security staff know about your device to avoid possible problems with airport screening systems. Airport screening systems or theft detectors in public department stores or banks can cause the neurostimulator to turn off or on. If this happens, don’t worry. It does not change your stimulation settings. Simply use your patient programmer to switch your neurostimulator back on again. If you know you will need to pass through one of these devices, it’s a good idea to switch off the neurostimulator before going through and turn it back on afterwards.

Getting a Replacement

After several years, the neurostimulator battery will run down, causing the electrical stimulation to change and become less effective. Your symptoms may then reappear, but this is normal and there is no need to worry. You should consult your doctor as soon as you feel a change in the stimulation (less or more intense, or different). Your doctor will check the battery and may decide to replace the neurostimulator. Your patient programmer will also warn you if the neurostimulator battery is low.