Colorectal Unit
Wits Donald Gordon Medical Centre

Sacral Neuromodulation (SNS) For Fecal Incontinence (FI)

WHAT IS A SACRAL NEUROMODULATION (SNS)?

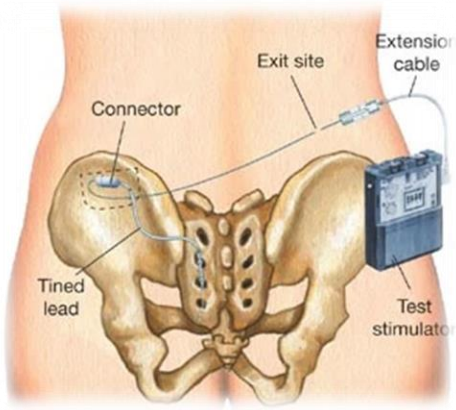
Sacral neuromodulation is designed to stimulate the normal nerve function to improve continence that is caused by poor nerve stimulation of the muscles around your anus (sphincters). SNS is performed in 2 phases:

TEST PHASE:

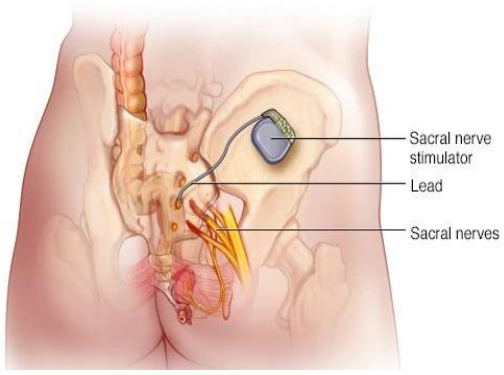
- A temporary lead is inserted to assess the improvement in continence

IMPLANT PHASE:

- If the test phase is successful then a permanent stimulator can be implanted
- This is usually performed 2-4 weeks following the T=test phase



Test Phase



Implant Phase

WHY AM I INCONTINENT OF FECES?

When a person opens their bowels to pass stool, the brain sends messages to the sacral nerves. These nerves control the muscles of the anus (sphincters). When the communication between the brain and the nerves breakdown, the anus is constantly relaxed or open causing stool to leak out the anus without a person control or awareness. Another cause of incontinence is when the sphincter muscles have been injured or are weak following child birth, pregnancy or surgery.

WHY SHOULD I HAVE A SNS PROCEDURE?

The aim of this procedure is to restore or improve fecal continence; this may be partially or fully restored. Either way, we aim to improve your continence to a level where your quality of life is returned.

WHAT ARE THE ALTERNATIVE TREATMENTS?

Alternative options include continuing with biofeedback or pelvic floor physiotherapy, taking medicines such as stool hardeners to keep the stool in, washing out the rectum daily with enemas or performing colonic lavage (washouts) at home.

WHAT DO I NEED TO DO PRIOR TO HAVING THE SACRAL NERVE NEUROMODULATION?

You would need to have had the cause of your symptoms fully investigated . This may include:

- Defecogram – an X Ray image of your bowel movement to assess if there is any prolapse that may be causing the fecal leaking
- Ultrasound of your anus to assess the sphincter muscles to see if they are injured or not
- Colonoscopy to ensure no inflammation in your bowels causing a loose stool which could be another cause of the fecal leak
- Biofeedback physiotherapy – specialized pelvic floor physiotherapy to improve the coordination of stooling and the function of the sphincter muscles

Your doctor would have reviewed these results and discussed your case within the pelvic floor multidisciplinary team and decided on the best treatment plan for your condition.

MY ANAESTHETIC

This procedure will require a general anaesthetic. You will be seen by the anaethetist in the ward prior to your operation. They will discuss all risks and complications regarding the anaesthetic with you. They will also discuss which drips will be placed while you are sleeping and what forms of pain control they will administer before and during the anaesthetic. If you have had any issues with previous anesthetics please let them know.

WHAT HAPPENS BEFORE THE OPERATION?

You will be sent information to obtain authorisation for your surgery, the Medtronic Medical Representatives usually assist you with this process. You will be given information on when to come in (time and date) by your surgeons receptionist. You will need to shower or wash with D Germ surgical soap (pink soap) the evening before the surgery as well as the morning of. This soap will be provided at your consultation with the doctor. Please pay special attention to your armpits, groins and buttocks.
Upon arrival into hospital you will be admitted by a ward nurse who will ask you to complete some paperwork; they may also take your blood pressure, pulse and temperature.

Once you have been seen by the team involved in your care, the ward nurse will give you a special gown to wear to theatre (you will need to remove all clothing including underwear before putting on the gown). When theatre is ready, you will be taken down to theatre on a hospital trolley with a member of staff. Where upon you will be welcomed by a member of the theatre team.

WHAT DOES THE PROCEDURE INVOLVE?

PHASE 1 (TEMPORARY WIRE)

You will be positioned on your stomach on the operating theatre table whilst you are asleep and your doctor will position a fine wire into a specific space in your lower back (along the side of a nerve) under the guidance of an X Ray. At that time a test with the handheld controller is then performed to ensure it is correctly placed to achieve optimal stimulation of the anus and sphincter muscles.

This lead will be securely strapped to your buttock skin and attached to an external device to stimulate the nerve during this phase. You will need to be very cautious not to pull the lead out over the next 2-4 weeks.

The external lead remains in place for 2-4 weeks. During which you will be given a simple continence diary to complete each day. This will allow the doctor to assess your leakage over the period and assess if there has been an improvement with the temporary lead.
If phase 1 stimulation has been successful, and your incontinence has improved, your surgeon will refer you on to have the permanent sacral neuro modulator implanted.

PHASE 2 (PERMANENT IMPLANT)

Similarly to stage 1, you will have a general anaesthetic. You will then be positioned on to the operating table on your stomach whilst you are asleep.

The wire that was placed at the first operation will then be connected to a small thin battery that will be inserted under the skin in the upper buttock. The skin will then be sutured closed and a dressing will be applied.

WHAT HAPPENS AFTER THE SURGERY?

After the operation the nursing staff will monitor you closely until you have recovered from the anaesthetic in the theatre recovery room. You will then be transferred back to the surgical ward where you will given something to eat and drink.

One of the Medtronic Medical Representatives will either turn the stimulator on (if phase 1) or advise you how to have the phase 2 stimulator turned on. You will also be given advice on how to use your handheld device.

You will be seen by one of the members of the colorectal team (CRU) and given a script with pain medication and stool softeners and then be discharged home.
Please make an appointment to see your surgeon in 2-3 weeks. You will need to call their rooms to set this up with the receptionist

DISCHARGE FROM HOSPITAL

Following your procedure you can expect to go home on the same day. Following discharge you must ensure you do the following:

DO:

- Read your handheld device instruction booklet
- Complete your bowel diary
- Keep the dressings dry
- Avoid showering for 48 hours (then avoid getting the dressing wet)

DON'T:

- Have a bath (phase 1)
- Complete strenuous activities that may dislodged the wire

WHAT ARE THE RISKS OF THESE PROCEDURES?

There are risks and complications with this procedure. They include but are not limited to the following.

General risks:

- Infection may occur which would, requiring antibiotics and possibly further surgical treatment. If the area operated on becomes very red, painful or starts discharging pus please let your surgeon or the Medtronic representative know as soon as possible.
- Wound problems are not common. However, your wound may become red and inflamed initially after surgery – this is generally the body's natural healing response. If however, this goes on for more than a 5 days, is very sore or is discharging pus please contact your surgeons rooms to organise someone to check the wound.
- Bleeding may occur and may require a return to the operating room. Bleeding is more common if you have been taking blood thinning drugs such as Warfarin, Aspirin, Clopidogrel (Plavix or Clopiwin) or St Johns Wort.
- Small areas of the lung can collapse, increasing the risk of chest infection (pneumonia). This may need antibiotics and physiotherapy.
- There is an increased risk in obese people to develop wound infection, chest infection (pneumonia), heart and lung complications and thrombosis.
- A heart attack or a stroke could occur due to the strain on the heart.
- A blood clot may form in the leg (DVT) causing pain and swelling. In rare cases part of the clot may break off and go to the lungs (pulmonary embolus or PE).Blood clot in the leg (DVT) causing pain and swelling. In rare cases, part of the clot may break off and go to the lungs Death as a result of this procedure is possible but very rare.

WHAT SHOULD YOU DO IF PROBLEMS DEVELOP?

- If the wound causes a problem please contact your surgeon's rooms, the medical representative, or your GP
- If you develop stimulator problems, please contact your medical representative directly

FREQUENTLY ASKED QUESTIONS

MAY I DRIVE WITH THE SNS?

Yes you can as long as you feel safe and can perform an emergency stop. It is recommended that you turn the modulator off whilst driving as this could potentially cause spasms in the nerves of your legs which may cause you to jump initally.

MAY I HAVE SEXUAL INTERCOURSE?

Yes as soon as you feel comfortable, care must be taken not to dislodge the wire if you have a temporary stimulator (Phase 1).

SHOULD I CHANGE THE DRESSINGS?

No, as the removal of dressings may dislodge the wire (Phase 1), if the dressings are becoming loose, you will have been given dressings to place over the existing dressings.

CAN I GO THROUGH SHOP OR AIRPORT SECURITY GATES?

Yes you can, however, always ensure you have your patient ID card with you to show security, and always check your modulator battery icon afterwards as the security gate may have turned the device off.

HOW LONG SHOULD I TAKE OFF WORK?

It all depends on the kind of work you do, generally most people can return to normal activities within a couple of days, but if you have a very physically demanding job you may need longer off. Your surgeon will be able to advise you further on this.

WILL THE SNM KEEP ME AWAKE?

No, it should not affect your sleep, if you do find this then you may need to turn the stimulation down at night (just because you cannot feel the stimulation it does not mean it is not stimulating) or off. Normally, you will have no restrictions while carrying out your activities. But you should avoid activities that involve sudden, excessive, or repetitive bending, twisting, bouncing, or stretching especially soon after the surgery. These movements could damage or move your implanted lead or affect the implanted neuro modulator.