Sacral nerve stimulation (neuromodulation): procedure-specific information

What is the evidence base for this information?
This leaflet includes advice from consensus panels, the British Association of Urological Surgeons, the Department of Health and evidence-based sources; it is, therefore, a reflection of best practice in the UK. It is intended to supplement any advice you may already have been given by your GP or other healthcare professionals. Alternative treatments are outlined below and can be discussed in more detail with your Urologist or Specialist Nurse.

What does the procedure involve?
This procedure involves initially temporarily stimulating the nerves in the sacrum to see if stimulation alters bladder function. If the test is successful, a permanent lead is placed into the sacrum and a stimulating implant is inserted into the buttock area.

What are the alternatives to this procedure?
Bladder re-training, physiotherapy, drug treatment, Botox injections into the bladder, bladder enlargement or replacement using bowel, urinary diversion into a stoma.

What should I expect before the procedure?
You will usually be admitted on the day of your surgery. You will normally receive an appointment for pre-assessment, approximately 14 days before your admission, to assess your general fitness, to screen for the carriage of MRSA and to perform some baseline investigations. After admission, you will be seen by members of the medical team which may include the Consultant, Specialist Registrar, House Officer and your named nurse.

You will be asked not to eat or drink for 6 hours before surgery and, immediately before the operation, you may be given a pre-medication by the anaesthetist which will make you dry-mouthed and pleasantly sleepy.

You will be given an injection under the skin of a drug (Clexane), that, along with the help of elasticated stockings provided by the ward, will help prevent thrombosis (clots) in the veins.

Please be sure to inform your Urologist in advance of your surgery if you have any of the following:
- an artificial heart valve
- a coronary artery stent
- a heart pacemaker or defibrillator
- an artificial joint
- an artificial blood vessel graft
- a neurosurgical shunt
- any other implanted foreign body
- a prescription for Warfarin, Aspirin or Clopidogrel (Plavix®)
- a previous or current MRSA infection
- high risk of variant CJD (if you have received a corneal transplant, a neurosurgical dural transplant or previous injections of human-derived growth hormone)

**What happens during the procedure?**
Currently, the procedure consists of two different admissions. During the first admission, under local anaesthetic, a temporary test electrode is placed into one of the sacral nerves in your lower back. The test electrode is connected to a device which generates electrical impulses for 3-5 days. During this time, you will be at home and will be asked to complete an input/output chart. The electrode will then be removed and the results discussed with you.

If the initial test shows that the stimulation does alter bladder function, you will proceed to permanent implantation of an electrode and impulse generator.

The second admission will involve a general anaesthetic. During the surgery, a permanent electrode will be implanted into the sacral nerves in your lower back and a permanent generator will be placed in your buttock area.

**What happens immediately after the procedure?**
On the day after your surgery, your implant will be switched on and programmed so that you obtain maximum benefit with regard to your symptoms whilst ensuring maximum comfort for you. When the implant is switched on, you will feel a tapping sensation in the genital or rectal area. The device will then normally be switched off and you will be discharged.
We will teach you how to use the programmer and will ask you to turn the implant back on after 5 days, once complete surgical healing has taken place.

The average hospital stay is 2 days.

**Are there any side-effects?**
Most procedures have a potential for side-effects. You should be reassured that, although all these complications are well-recognised, the majority of patients do not suffer any problems after a urological procedure.

Please use the check boxes to tick off individual items when you are happy that they have been discussed to your satisfaction:

**Common (greater than 1 in 10)**
- Replacement, relocation or removal of the implanted pulse generator
- Replacement, relocation or removal of the lead
- Pain
- Inability to pass urine requiring a bladder catheter

**Occasional (between 1 in 10 and 1 in 50)**
- Wound infection
- Adverse effect on bowel function
- Urinary infection
- Implanted pulse generator malfunction

**Rare (less than 1 in 50)**
- None

**Hospital-acquired infection (overall risk for Addenbrooke’s)**
- Colonisation with MRSA (0.02%, 1 in 5,000)
- Clostridium difficile bowel infection (0.04%; 1 in 2,500)
- MRSA bloodstream infection (0.01%; 1 in 10,000)

(These rates may be greater in high-risk patients e.g. with long-term drainage tubes, after removal of the bladder for cancer, after previous infections, after prolonged hospitalisation or after multiple admissions)

**What should I expect when I get home?**
When you leave hospital, you will be given a “draft” discharge summary of your admission. This holds important information about your inpatient stay and your operation. If, in the first few weeks after your discharge, you need to call your GP for any reason or to attend another hospital, please take this summary with you to allow the doctors to see details of your treatment. This is particularly important if you need to consult another doctor within a few days of your discharge.

If you have problems using your programmer, please contact your named Specialist Nurse.
What else should I look out for?

If you experience any flu-like symptoms, redness/throbbing in the wound, pain/burning when passing urine or difficulty passing a catheter, please contact your GP.

You may require repeated contact with your named Specialist Nurse or repeated visits to Hospital to “fine-tune” your programmer. Over time, the body can become conditioned (used) to the programmer settings and you may need advice on re-programming.

Are there any other important points?

The urology Specialist Nurses will keep in contact with you after your discharge from hospital and you will have an outpatient review appointment within 2 months of your discharge/

Driving after surgery

It is your responsibility to ensure that you are fit to drive following your surgery. You do not normally need to notify the DVLA unless you have a medical condition that will last for longer than 3 months after your surgery and may affect your ability to drive. You should, however, check with your insurance company before returning to driving. Your doctors will be happy to provide you with advice on request.

Is there any research being carried out in this field at Addenbrooke’s Hospital?

There is no specific research in this area at the moment but all operative procedures performed in the department are subject to rigorous audit at a monthly Audit & Clinical Governance meeting.

Who can I contact for more help or information?

Oncology Nurses

- Uro-Oncology Nurse Specialist
  01223 586748
- Bladder cancer Nurse Practitioner (haematuria, chemotherapy & BCG)
  01223 274608
- Prostate cancer Nurse Practitioner
  01223 247608 or 216897 or bleep 154-548
- Surgical Care Practitioner
  01223 348590 or 256157 or bleep 154-134

Non-Oncology Nurses

- Urology Nurse Practitioner (incontinence, urodynamics, catheter patients)
  01223 274608 or 586748
- Urology Nurse Practitioner (stoma care)
  01223 349800
Patient Advice & Liaison Centre (PALS)
- Telephone
  +44 (0)1223 216756 or 257257
  +44 (0)1223 274432 or 274431
- PatientLine
  *801 (from patient bedside telephones only)
- E mail
  pals@addenbrookes.nhs.uk
- Mail
  PALS, Box No 53
  Addenbrooke's Hospital
  Hills Road, Cambridge, CB2 2QQ

Chaplaincy and Multi-Faith Community
- Telephone
  +44 (0)1223 217769
- E mail
  derek.fraser@addenbrookes.nhs.uk
- Mail
  The Chaplaincy, Box No 105
  Addenbrooke's Hospital
  Hills Road, Cambridge, CB2 2QQ

MINICOM System ("type" system for the hard of hearing)
- Telephone
  +44 (0)1223 274604

Access Office (travel, parking & security information)
- Telephone
  +44 (0)1223 586969

What should I do with this form?
Thank you for taking the trouble to read this information sheet. If you wish to sign it and retain a copy for your own records, please do so below.

If you would like a copy of this form to be filed in your hospital records for future reference, please let your Urologist or Specialist Nurse know. If you do, however, decide to proceed with the scheduled procedure, you will be asked to sign a separate consent form which will be filed in your hospital notes and you will, in addition, be provided with a copy of the form if you wish.

I have read this information sheet and I accept the information it provides.

Signature..........................................................Date............................................
How can I get information in alternative formats?

Please ask if you require this information in other languages, large print or audio format: 01223 216032 or patient.information@addenbrookes.nhs.uk

Polish Informacje te można otrzymać w innych językach, w wersji dużym drukiem lub audio. Zamówienia prosimy składać pod numerem: 01223 216032 lub wysyłając e-mail: patient.information@addenbrookes.nhs.uk

Portuguese Se precisar desta informação num outro idioma, em impressão de letras grandes ou formato áudio por favor telefone para o 01223 216032 ou envie uma mensagem para: patient.information@addenbrookes.nhs.uk

Russian Если вам требуется эта информация на другом языке, крупным шрифтом или в аудиоформате, пожалуйста, обращайтесь по телефону 01223 216032 или на вебсайт patient.information@addenbrookes.nhs.uk

Cantonese 若你需要此信息的其他語言版本、大字體版或音頻格式，請致電 01223 216032 或發郵件到：patient.information@addenbrookes.nhs.uk

Turkish Bu bilgiyi diğer dillerde veya büyük baskılı ya da sesli formatta isterseiz lütfen su numaradan kontakt kurun: 01223 216032 veya asagidaki adrese e-posta gönderin: patient.information@addenbrookes.nhs.uk

Bengali এই তথ্য বাংলায়, বড় লেখায় বা অডিও টেগে গেছে নাইলে দেখা করে 01223 216032 নম্বরে ফোন করেন বা patient.information@addenbrookes.nhs.uk ই-মেইল করুন।
Addenbrooke’s is smoke-free. You cannot smoke anywhere on the site. Smoking increases the severity of some urological diseases and increases the risk of post-operative complications. For advice on quitting, contact your GP or the NHS smoking helpline free on 0800 169 0 169

Document history
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