Urology department

Sacral nerve stimulation (neuromodulation)

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 urologist or nurse specialist as well as the surgical team at Addenbrookes. 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, the stimulating implant is inserted into the buttock area and connected to the stimulating electrode.

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 undergo pre-assessment on the day of your clinic or an appointment for pre-assessment will be made from clinic, 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, junior urology doctors and your named nurse.

You will be asked not to eat or drink for six 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 (Dalteparin), which, 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
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• 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, a temporary test electrode or the permanent tined lead 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 three to five days but sometimes up to two to four weeks. During this time, you will be at home and will be asked to complete an input/output chart.

If a temporary electrode is placed, the electrode will then be removed in clinic and the results discussed with you with a plan to place the permanent electrode and stimulator at a later date during a second admission if the test is positive.

If the permanent electrode is placed at the first sitting, this will be connected to the stimulator during your second admission under a general anaesthetic if you have a positive result to the test. If you have a negative test result, you will need a short general anaesthetic to remove the permanent electrode if this was placed at the first sitting.

What happens immediately after the procedure?
On the day of 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.

We will teach you how to use the programmer.

The average hospital stay is 12 to 24 hours.

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 one 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
- Urinary infection
- Implanted pulse generator malfunction

**Rare (less than 1 in 50)**
- Adverse effect on bowel function

**Hospital-acquired infection (overall risk for Addenbrooke’s)**
- Colonisation with MRSA (0.01%, two in 15,500)
- Clostridium difficile bowel infection (0.02%; three in 15,500)
- MRSA bloodstream infection (0.00%; 0 in 15,000)

(These rates may be greater in high risk patients eg 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 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 two 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 three 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.

Privacy & Dignity
Same sex bays and bathrooms are offered in all wards except critical care and theatre recovery areas where the use of high tech equipment and/or specialist one to one care is required.

Hair removal before an operation
For most operations, you do not need to have the hair around the site of the operation removed. However, sometimes the healthcare team may need to remove hair to allow them to see or reach your skin. If the healthcare team consider it is important to remove the hair, they will do this by using an electric hair clipper, with a single-use disposable head, on the day of the surgery. Please do not shave the hair yourself, or use a razor for hair removal, as this can increase the risk of infection to the site of the operation. If you have any questions, please ask the healthcare team who will be happy to discuss this with you.

References
NICE clinical guideline No 74: Surgical site infection (October 2008); Department of Health: High Impact Intervention No 4: Care bundle to preventing surgical site infection (August 2007)

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 and 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 and BCG)
01223 274608
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Prostate cancer nurse practitioner
01223 274608 or 216897 or bleep 154-548

Surgical care practitioner
01223 348590 or 256157 or bleep 154-351

Non-oncology nurses

Urology nurse practitioner (incontinence, urodynamics, catheter patients)
01223 274608 or 586748 or bleep 157-237

Urology nurse practitioner (stoma care)
01223 349800

Urology nurse practitioner (stone disease)
01223 349800 or bleep 152-879

Patient Advice and 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: chaplaincy@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 217589

Access office (travel, parking and security information)
Telephone: +44 (0)1223 596060
What should I do with this leaflet?

Thank you for taking the trouble to read this patient information leaflet. 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 leaflet 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 patient information leaflet and I accept the information it provides.

Signature……………………………….……………Date……………………………..

Help with this leaflet:

If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or patient.information@addenbrookes.nhs.uk

We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.
For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.