The British Association of Urological Surgeons

Sacral neuromodulation

Bladder treatment using nerve signals

This leaflet gives you simple, easy-to-read details about your procedure. Expert doctors in the UK have written it. Please also remember the advice your own doctor or nurse has already given you.

Key points

- This treatment helps people who need to pee often or suddenly. It can help if you have trouble peeing. It can help if you leak pee.
- We call this sacral neuromodulation. We sometimes call it SNM for short.
- The doctor puts a small electronic device inside your lower back. This sends signals to your brain. It helps to control bladder nerves.
- About 8 out of 10 people feel much better after having this treatment.
- The treatment happens in 2 steps. The second step happens a few weeks after the first step.
- Over time, your body may get used to the signals. The device may not work as well. Changing the settings may help.
- The battery usually lasts between 3 and 15 years. Some newer batteries last longer. Some batteries can be charged without wires.
- The biggest problem that can happen is an infection near the wound. This is the area where the doctor has put the wire or battery. If this happens, you should tell your medical team straight away.
- A tool used in some operations can damage the device. We call this surgical diathermy. It uses an electric current to stop bleeding.
- Check with your surgeon before having a scan. It may be safe to have an MRI scan if you have an SNM device. Sometimes it is not.
- If the device stops working, you may need another procedure to fix it.

What does this treatment involve?

We sometimes call sacral neuromodulation sacral nerve stimulation. It is a treatment that uses gentle electric signals. It works on the nerves that control your bladder and bowel.

The doctor puts a small wire in your lower back, near these nerves. The wire sends tiny electrical pulses from a battery.

The treatment happens in 2 steps.

Published date: December 2025

Review date: December 2026

Leaflet ID: F25/030

Step 1

You have a short trial for about 3 weeks. The doctor puts a wire near the nerves that control your bladder or bowel. You have a small device outside your body. This sends signals through the wire to see if it helps your symptoms.

Step 2

If the trial works well:
- The doctor will put a permanent device and wire under your skin.

If the trial doesn’t work:
- The doctor will take the wire out.

This is what the implant looks like

Why do you need this treatment?

SNM is used to treat these problems:

An overactive bladder. If you have an overactive bladder:
- You may have a strong and sudden need to pee. You may not be able to wait.
- You may need to pee more often than usual. This happens even if your bladder is not full.
- You may wake up more than once during the night to pee.
- You may leak pee before you can get to the toilet. We call this urge incontinence.

Trouble emptying your bladder. We call this non-obstructive chronic urinary retention.

Bowel problems. You will be looked after by a bowel specialist. You may have:
- leaking poo
- other bowel problems

About 8 out of 10 people with bladder problems feel better after this treatment. It does not cure the problem, but it can make it easier to cope.

Not everyone is suitable for this treatment. Your doctor will help you decide if it is right for you.

What are your other options?

There are some other choices. You can talk to your doctor about which is the right one for you.

If you have an overactive bladder

You may try other treatments before having this one. These include:
- **Pads to soak up the leaks.** This is a good choice if the leaking does not bother you.

- **Pelvic floor exercises.** These are special movements that help strengthen the muscles that control when you pee. A nurse or therapist can teach you how to do them. About 5 out of 10 people get better with these exercises.
- **Lifestyle changes**. Weight loss and stopping smoking can help some people.
- **Medicines**. There are some tablets that help calm your bladder. You can find more information here.
- **Botox injections**. We call this injection Botulinum toxin-A. It is injected into your bladder using a small thin camera. The camera goes into the bladder through your water pipe. You can find more information here.
- **Nerve stimulation.** We call this PTNS**.** This stands for posterior tibial nerve stimulation. Gentle electric pulses are sent to a nerve near your ankle. This is not easy to get on the NHS. You can find out more information here.
- **Enterocystoplasty.** This operation is to make your bladder bigger so it can hold more pee. To do this, the doctor takes a small piece of your bowel and stitches it onto your bladder. It is a big operation.
- **Ileal conduit urinary diversion.** This is an operation to make a new way for pee to leave your body. The doctor makes a small opening in your tummy. We call this a stoma. Your pee comes out into a soft bag. The bag stays on your skin all the time. You will be shown how to empty the bag and look after your stoma.

If you have non-obstructive urinary retention

If you cannot empty your bladder, SNM sometimes helps. It is not right for everyone. Your doctor may suggest other treatments, such as:

- **Bladder catheter**. The doctor can put a soft tube into your bladder to keep it empty. We call this tube a catheter. The tube goes through the tube that carries your pee out of your bladder. We call this tube the urethra. You can find out more about this here.
- **Botox injections to the urethral sphincter.** This is an injection into the valve that controls your pee. Botox is not often used like this. Doctors can do it but need to follow special rules.
- **Mitrofanoff procedure.** This operation makes a new way for pee to leave your bladder. It is a big operation. You can find out more information here.

What happens on the day of the treatment?

- Your doctor will talk to you about your medical record. They will also make sure that you understand and agree to the treatment. You will hear this called “giving your consent”.
- You will meet the anaesthetist. They will talk to you about what type of anaesthetic you will have.
- You may have a general anaesthetic. This is where the operation is done whilst you are asleep. Or you may have a spinal anaesthetic. This is when the doctor makes you numb from the waist down.
- The anaesthetist will talk to you about pain relief.
- The nurse may give you special stockings and an injection to stop blood clots. Some people might need to use these stockings at home, after the operation. Your medical team will tell you if you need to do that.
- Antibiotics are often given before surgery to avoid infection.
- Your medical team will check to make sure you don’t have any allergies.

What happens during the treatment?

This treatment takes place in 2 steps, a few weeks apart. After the first step, there is a test phase. This is to see if the treatment is helping you.

1. Placing the wire

There are 2 ways to put in the wire. Your doctor will choose the one that is best for you.

Temporary wire

- The doctor puts a small wire near the nerves in your lower back. They use an X-ray to make sure it is in the right place.
- They connect the wire to a small box outside your body. This box sends gentle signals to your nerves.
- You need to wear the box all the time.
- Most people go home the same day. Some people may stay in hospital overnight.

Permanent wire

- The doctor makes a small cut in your lower back.
- They make another cut at the top of your bottom.
- They put a wire near the nerves.
- The doctor checks its position with an X-ray.
- The wire comes out through the skin on the side of your bottom.
- They connect the wire to a box. The box stays outside your body. This sends gentle signals to your nerves.
- You need to wear the box all the time.
- Most people go home the same day. Some people may stay in hospital overnight.

Test phase

- This lasts for about 3 weeks.
- You will be at home.
- You must keep your bandages clean and dry. Wash yourself with a sponge or flannel. Do not have a bath or a shower. Keep the bandages dry. Do not take them off or change them.
- Your medical team will check how well the treatment is working. They may adjust the settings if needed.
- It is very important to fill in any bladder diaries or forms you are given. These help show how well the treatment is working.

2. Final procedure

If the treatment does not help, the wire will be taken out.

If it does help, the doctor will put a small battery under your skin.

- If you had a temporary wire:
    - It is replaced with a permanent wire
- If you had a permanent wire:
    - The doctor will use the same wire
    - They will open the cut in your bottom

    - They will put the battery under your skin
- Most people go home the same day. Some people may stay in hospital overnight.
- You may need to take medicine to help stop infection.

After the final procedure

- The doctor will usually switch the device on after the procedure. Sometimes they will wait a few days.
- When they switch it on, you may get a tapping feeling near your bottom or private area.
- The doctor will set the controls on the device. They will set it so it helps your bladder without causing discomfort.
- The doctor or nurse will show you how to change the strength of the signals yourself. You can use a remote control or smartphone.

There are different types of devices. Some devices can be used safely in MRI scans. Some have batteries that can be charged without wires. Your doctor will talk to you about this.

What happens before you go home?

Your medical team will tell you how the operation went. You should:

- ask questions. You should know what has been done
- ask the surgeon if everything went as planned
- let the staff know if you have any pain or discomfort
- ask what you can and cannot do at home
- make sure you know what happens next
- get advice about how to look after yourself at home
- be told what to look out for when you get home
- ask when you can start doing the things you normally do
- be told who to contact if you have problems

Possible after-effects of the procedure

Most people recover well, but there are some things that can happen. Everyone is different. Your doctor will talk with you about what these risks might mean for you.

Common problems. These happen to 3 out of every 10 people:

- The treatment may not help everyone. Some people find that their symptoms do not get much better.

Occasional problems. These happen to more than 1 out of every 10 people:

- You may feel sore after the procedure. Simple pain medicine can help with this.
- Sometimes the wire or battery may need to be moved, replaced or taken out.
- You may feel some discomfort where the wire or battery was placed. This may be in your lower back or bottom.
- Some people feel discomfort in their ankle or foot.

Rare problems. These only happen to about 1 out of every 25 or 1 out of every 50 people:

- If the area where the device was placed gets infected, you may need medicine to treat it. Sometimes the device might need to be taken out.
- Sometimes the signals from the device can cause problems with your bowel. This may change how you poo.

Risk of getting an infection in hospital

About 6 out of 100 people get an infection whilst they are in hospital. This includes MRSA or C. difficile infections. The risk is higher if you:

- have a tube in place for a long time
- have had your bladder removed
- stay in hospital for a long time
- have been in hospital many times

What should you expect when you get home?

- You will get a summary of your hospital stay. Your GP will get a copy too.
- Any tablets you need, such as antibiotics, will be given to you before you leave hospital.
- You might feel a little sore for a few days. Simple pain medicine can help.
- Keep your bandages clean and dry.
- You must **not** shower or take a bath during the test phase.
- Give your body time to heal. Do not do hard exercise, sports or stretch your lower back for 6 to 12 weeks. You could move the wire and stop the device from working.
- If your wound becomes red, painful, throbs or leaks, tell the hospital right away.
- You can fine-tune the device using a remote control or smartphone.
- If you have trouble with the device, contact your nurse or surgeon.
- You will be asked to fill in another bladder diary during the test phase.
- Your medical team will book a follow-up appointment to see how the treatment is working.

Things to know for the long term

Battery

Some devices use a battery you can recharge. These usually last for about 15 years. If your device has a battery that cannot be recharged, it will run out after 3 to 7 years. It is easy to put in a new battery. You will need to come to hospital for the new battery to be put in.

Recharging problems

The rechargeable device needs to charge every week or so. If the charger stops working properly, you might need surgery to fix or replace the battery.

Other surgeries

If you need another operation, tell the surgeon you have an SNM. Your device must be turned off during surgery. A tool used in some operations can damage the device. It uses an electric current to stop bleeding. We call this tool surgical diathermy.

Airport and security scanners

Scanners can affect your device. You will be given an SNM card. Show this to security staff. If you must go through a scanner, turn off your device first.

Sports

Avoid rough sports like horse-riding or contact sports. They can damage the device.

MRI scans

Not all scans are safe for all devices. The powerful magnetic field in an MRI scanner can damage your device and cause you harm. Head scans are usually fine with newer devices.

Some SNM devices are designed to be safe with MRI scanners.

You can safely have an MRI scan of your head. For other scans, you must check with your surgeon to make sure your device is safe for MRI.

Pregnancy

If you get pregnant when you have an SNM device, switch the device off. If you are planning a pregnancy, SNM is not recommended. This is because its effects on the unborn baby are not known.

General information about your operation

Before your operation

- Tell your team if you have implants. These are things like:
    - a pacemaker
    - a joint replacement
- Tell your doctor if you take blood-thinning tablets.
- If you have ever had MRSA, you should tell your doctor.
- You should tell your doctor if you may be at risk of variant-CJD. This might be if you have had:
    - a corneal transplant
    - a neurosurgical dural transplant
    - human growth hormone treatment
- You can ask your doctor about their own results and experience with this operation.

Smoking and surgery

Smoking makes some bladder and pee problems worse. Smoking makes some surgery riskier. Stopping before your procedure helps. For help to stop smoking, call the NHS Smoke-Free Helpline: 0300 123 1044.

Driving after surgery

You must make sure that you are well enough before driving again. Talk to your doctor about this. If you cannot drive for more than 3 months, tell the DVLA. You should also check with your insurance company before driving again.

Important

We have worked hard to make this leaflet clear and correct. But it cannot replace advice from your own doctor or nurse. Always ask them if you are worried or unsure.

Published date: December 2025
Review date: December 2026
Leaflet ID: F25/030

What should you do with this leaflet?

You can keep this leaflet. If you have more questions, ask your doctor or nurse. They can explain more.

Online access

You can see this leaflet on the internet.

Scan the special picture (QR code).

https://rb.gy/v13gcq

Feedback

We'd love to know what you think! You can share your thoughts by emailing us at **admin@baus.org.uk**

Published date: December 2025
Review date: December 2026
Leaflet ID: F25/030

Questions and notes

Published date: December 2025

Review date: December 2026

Leaflet ID: F25/030