Salford Royal NHS
NHS Foundation Trust

University Teaching Trust

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Your spinal cord stimulation procedures and beyond

Pain Centre
Irving Building
0161 206 4002

Health & care information you can trust
The Information Standard Certified Member

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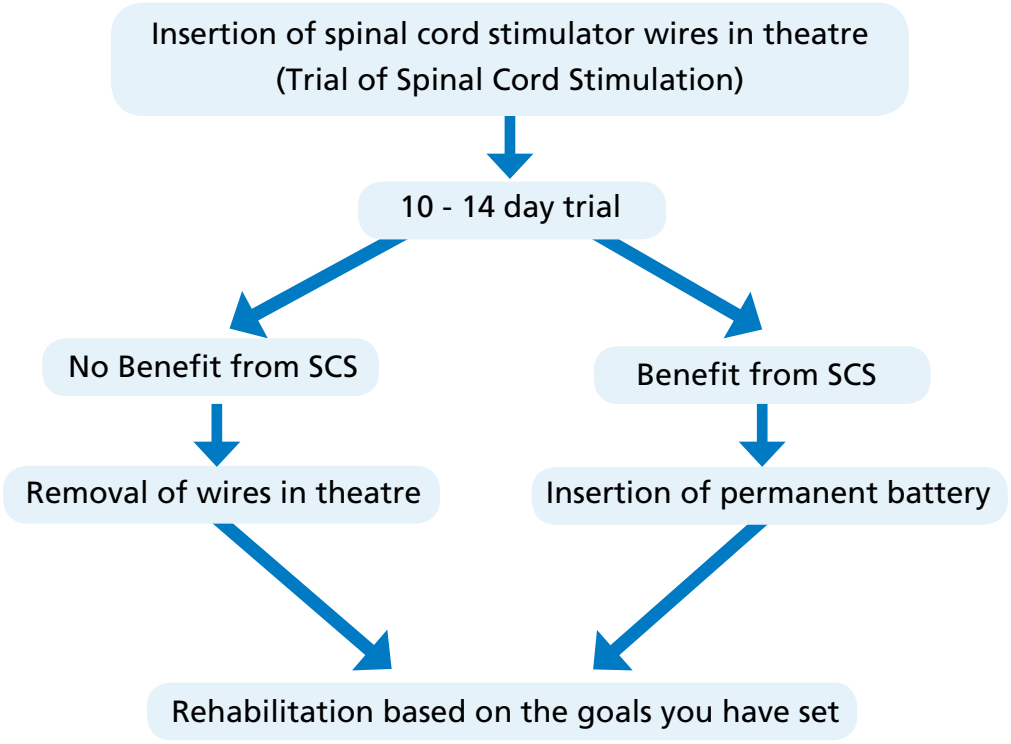
The team of doctors, nurses and psychologists have assessed your pain condition and decided that you may benefit from a trial of spinal cord stimulation.

The process that you will follow is indicated in the diagram below.
This leaflet gives you information about these procedures.



Why do we do a trial of Spinal Cord Stimulation?

A trial of Spinal Cord Stimulation (SCS) is an opportunity for you to see if this therapy helps to relieve your pain. There are two types of spinal cord stimulators and the team will decide which one will be the most appropriate for your pain condition. The main difference between the SCS systems is that you will either feel no sensation from the device or alternatively you will experience a 'tingling' sensation in the area of your pain. You will need to think about whether or not the spinal cord stimulator relieves your pain and by how much. There is a section at the end of this leaflet for you to record your thoughts about the effects of the stimulator on your mood, physical function and pain levels.

We also need you to think about whether using the stimulator would enable you to use less pain medication. The pain relief from the stimulation may also improve your readiness to sleep or allow you to do more activity because of better pain relief. In some cases it is not possible to get adequate stimulation for pain relief and some people find the sensation of stimulation unpleasant. In such cases it will not be possible to proceed to a permanent implantation and the electrode will have to be removed.

Preparing for your trial

We are very concerned that you do not develop an infection. Smoking cigarettes makes an infection more likely. If you smoke, try to stop completely. If you develop a skin or chest infection or if you feel unwell in any way prior to the date of your surgery then it is important to let the Pain Team know in advance. Try to ensure that you have a bath or shower on the morning of the procedure. It may be helpful to wear loose clothing which does not press on your wounds on the day of the procedure.

Where and how is the trial done?

You will have your trial electrode (wire) inserted in an operating theatre. The trial procedure takes 1-2 hours. Intravenous antibiotics will be given to you before the procedure. Your back will be cleaned with antiseptic and clean towels placed over the area. Local anaesthetic is used to numb the area but you might still feel some pushing or pressure sensations. An x-ray machine will be used to guide the electrode into place. The electrode wire that provides the stimulation is put into your spine and placed next to the protective fluid-filled sleeve that protects the spinal cord. The end of the electrode is attached to a connector that is stitched to the muscles lying alongside the spine to prevent the wire from moving. This can often be felt as a small lump to the side of your spine during the trial but will not be there if you proceed to having a permanent battery inserted. An extension wire is attached to the connector and is tunnelled under the skin and comes out in your side some distance from your spine. A cut in the skin near the spine will be needed in order to stitch the connector to the muscle. This small wound will be stitched or clipped and a dressing applied.

If you have sutures that need to be removed the pain nurse will arrange with you to have this done 10-15 days following the procedure. The wire is covered with a special dressing where it comes out of your skin. The external wire is inserted into a small box (multi-lead trialling cable) and this is stuck to your body with a dressing. An extension lead is then plugged into the temporary external neurostimulator (ENS). Before you are discharged from the ward, you will be given instructions on how to connect the extension lead to the ENS. You will also be given a 'patient programmer'. This will control the ENS and ultimately, the implanted stimulator. You will learn how to use this confidently before being discharged from hospital. It is useful to insure your patient programmer on your household insurance as it costs approximately £600.

You will be allowed home on the same day following the electrode going in. You should not bathe or shower during the trial. We will see you in clinic a few days after the trial to review your wounds and progress with the SCS in terms of its effect on your pain. During this time you are asked to do all your normal activities.

Your post implant appointments will give you the opportunity to ask any questions and to see how well the stimulation is working. We will also check that your wounds are satisfactory. The trial wire will be cut at your second appointment. You will be listed to have a permanent battery put in if the trial is successful or have the electrode removed if it is not.

Management of your wounds

Please contact the pain centre (**0161 206 4002**) for advice if you feel unwell or develop any redness or swelling around the wound indicating a possible infection. Make sure you take your regular painkillers on the day of the procedure. The site of the operation may continue to be painful for a number of days.

It is essential that the wound site and the wire exit site are kept clean to stop infection getting into the spinal canal. In order to do this you are advised to follow the guidelines discussed prior to discharge.

Try to avoid busy places where infection risk may be increased. Do not touch the wound or wire unnecessarily and always wash hands after touching other sources of infection such as family pets.

Care of the Spinal Wound

The nurse will attend to the dressing over the back wound at your appointment following the trial. Do not shower or bathe before this dressing change. We ask that you do not shower or bathe throughout the duration of the trial. If you are worried about increasing pain around your wound or if you are generally feeling feverish or unwell, the Pain Centre should be contacted as soon as possible (the telephone number can be found below). Out of hours, you will need to attend the Accident and Emergency at Salford Royal NHS Foundation Trust and you should be reviewed by a member of the neurosurgical team. Please take this leaflet with you to the Accident and Emergency department.

Care of the wire exit site during the Trial

The dressing at this site should not be removed except where there is a clinical indication by your healthcare team. The dressing we use will absorb any fluid from the wound. To prevent tension on the wire and to avoid the lead moving and stimulation being lost, the lead should be anchored with plaster to an area of skin a small distance away from the exit site. Do not touch the wire emerging from the skin or the skin immediately surrounding the wire. It is important that the wire exit site is NEVER underwater. If there is any cause for concern, the Pain Centre should be contacted as soon as possible.

If your wound dressings become dislodged, or become completely saturated with fluid from the wound, re-secure them by applying another dressing over the existing dressing and inform the pain centre.

If you have any questions in the meantime, do not hesitate to leave a message for the Specialist Pain nurses and we will try to get back to you at the earliest opportunity.

Removal of wires in theatre or insertion of permanent battery

If you have not found the spinal cord stimulator useful in terms of relieving your pain then the wires will need to be removed. This will be done in the operating theatre in a similar manner to the trial however you will not need antibiotics and the procedure is much shorter. The wound were your trial wire was placed is opened and the wire is removed. The wounds are then closed.

If you have found the spinal cord stimulator of benefit in terms of relieving your pain then you will be brought back to theatre for insertion of the permanent implant.

The insertion of battery procedure takes approximately 1 hour. Intravenous antibiotics will be given to you before the procedure. Your back will be cleaned with antiseptic and clean towels placed over the area. Local anaesthetic is used to numb the area but you might still feel some pushing or pressure sensations. There is the option of having sedation for insertion of the permanent battery. You will be allowed home on the same day following the battery going in. We will see you in clinic in order to check your wounds and ensure that you are able to charge the battery.

Next steps

General advice and precautions

You will be told about movement restrictions following your implant. In general you should avoid: heavy lifting, excessive twisting or bending of the spine and raising the arms above shoulder height for the first six weeks. This is in order to allow the electrode wire to embed itself and minimise the risk of it moving. After this period normal movements can be resumed.

The pain team will provide you with specific advice about driving depending upon the system that is implanted. You should not drive after surgery until your wounds are healed and you can safely do an emergency stop.

Please refer to your booklet regarding other precautions such as MRI scanning, surgical diathermy and anti-theft devices.

Making the most of your pain relief

We have asked you during the assessment for a trial of spinal cord stimulation to think about whether using the stimulator would enable you to use less pain medication. The pain relief from the stimulation may also have improved your readiness to sleep or allowed you to do more activity because of better pain relief. Sometimes making these changes can be challenging and we are here to help you rehabilitate from the physical and psychological impact that having pain has had. You will also have open access to the spinal cord stimulator team if you have a problem with your device.

If you have not had a successful trial of spinal cord stimulation then we will review you to assess whether you may benefit from other therapies that we offer.

Contact Names

- **Dr Abdul Ghaaliq Lalkhen**
  Consultant in Pain Management and Anaesthesia
- **Dr Mahindra Chincholkar**
  Consultant in Pain Management and Anaesthesia
- **Mr Julian Evans**
  Consultant Neurosurgeon
- **Mrs Sue Barnes**
  Consultant Nurse
- **Ms Angela Leonard**
  Specialist Pain Nurse
- **Mr Robin Wilding**
  Specialist Pain Nurse
- **Mrs Julie Foster**
  Administration

Contact Numbers:

Pain Centre:
Monday to Friday
08:30-17:00

Telephone:
0161206 4002

Email:
PainReception@srft.nhs.uk

During weekends and out of office hours we ask that you contact your GP or the Salford Royal NHS Foundation Trust Accident and Emergency Department where the Neurosurgical On-Call team will be contacted with regards to your stimulator. Please show this leaflet to the doctor who sees you in the Emergency Department.

Spinal Cord Stimulation Trial

Please feel free to make notes during your trial of the goals you would like to achieve and how the stimulator is affecting your pain, mood and physical function:

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For further information on this leaflet, it's references and sources used, please contact **0161 206 4002.**

Copies of this information are available in other languages and formats upon request.

In accordance with the Equality Act we will make 'reasonable adjustments' to enable individuals with disabilities, to access this treatment / service.

If you need this interpreting please telephone

Polish
Jeżeli potrzebne jest Państwu to tłumaczenie, proszę zadzwonić pod numer.

Urdu
اگرآپ کواس ترجمانی کی ضرورت ہے تو مہربانی کرکےفون کریں۔

Arabic
اذا كنتم بحاجة الى تفسير او ترجمة هذا الرجاء الاتصال

Chinese
如果需要翻译，请拨打电话

Farsi
اگر به ترجمه این نیاز دارید ، لطفاً تلفن کنید

0161 206 0224

Email: InterpretationandTrans@srft.nhs.uk

Under the Human Tissue Act 2004, consent will not be required from living patients from whom tissue has been taken for diagnosis or testing to use any left over tissue for the following purposes: clinical audit, education or training relating to human health, performance assessment, public health monitoring and quality assurance.

If you object to your tissue being used for any of the above purposes, please inform a member of staff immediately.

Salford Royal operates a smoke-free policy.

For advice on stopping smoking contact the Hospital Specialist Stop Smoking Service on 0161 206 1779

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http://www.srft.nhs.uk/for-patients