Return to Work SA

Spinal Cord Stimulators

Guidelines for Treating Specialists

September 2025

Return to ***work.***
Return to ***life.***

Official

Government of South Australia

Contents

Introduction

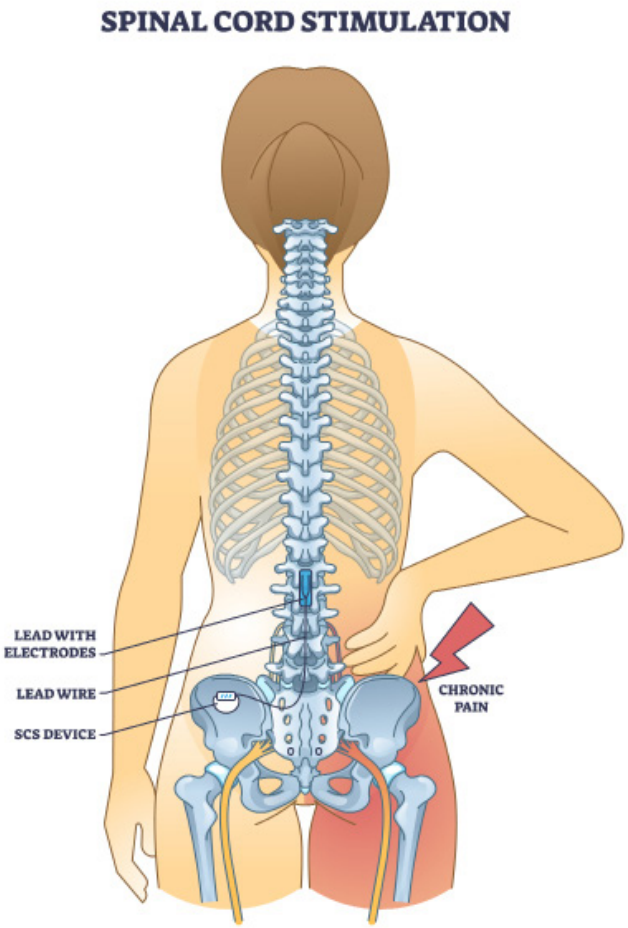
A worker with an accepted claim under the *Return to Work Act 2014* (the Act) is entitled to be compensated for the necessary costs of medical and related services, reasonably incurred in consequence of having suffered a work injury.

ReturnToWorkSA supports workers having access to a wide variety of high quality, evidence-based treatment options that support recovery from injury or reduce the extent of the injury.

Where the evidence-base for treatment is unestablished or emerging, it is necessary to put in place guidelines to define the criteria and indications for treatment and ensure optimal outcomes for workers.

Spinal Cord Stimulation (SCS) is a treatment for specific chronic pain conditions that have not responded to standard methods of pain management. It can provide pain relief to appropriate patients but is not without risk or limitation to the benefits experienced. The long-term efficacy is not well-established due to lack of high-quality long-term clinical trials (>12 months).

This guideline has been developed to outline the process and evidence required from treating specialists (i.e. pain physicians, orthopaedic/spinal/neuro- surgeons), to support appropriate patient selection, optimise outcomes and streamline approval of costs.



Purpose

This guideline outlines ReturnToWorkSA's position on SCS in the Return to Work scheme and applies to workers employed by registered employers who have their claims managed by one of the claims agents contracted by ReturnToWorkSA. Self-insured employers may adopt this guideline for use at their discretion.

This guideline includes:

- background on SCS use and patient selection
- device trial expectations
- ongoing care requirements following permanent implantation
- information required from the treating medical specialist to support approval.

It has been informed by:

- current evidence-based research and reviews
- existing clinical guidelines on best practice
- position statements from peak medical and pain bodies within Australia
- consultation with Scheme stakeholders including medical specialists and the professional associations that represent them, workers and the unions that represent them, claims agents, employers and employer associations.

Spinal Cord Stimulators

Potential benefits

SCS has the potential to:

- reduce levels of pain
- increase health-related quality of life
- increase participation in activities of daily living
- increase psychological well-being
- reduce medication use.

Potential risks

Common risks are mostly related to hardware failure but may include other complications, such as:

- electrode/lead migration or breakage
- hardware malfunction
- undesirable stimulation or pain
- infection.

Serious risks from device implant are understood to be rare, and include:

- cerebrospinal fluid leak
- hematoma
- skin erosion or allergic reaction
- paraplegia.

Indicated conditions

The Australian and New Zealand College of Anaesthetists Faculty of Pain Medicine produced guidelines in 2011 for use of SCS in management of chronic pain. The conditions relevant to the scheme which are most likely to respond to SCS are:

- failed back surgical syndrome
- complex regional pain syndrome
- neuropathic pain secondary to peripheral nerve damage.

Contraindications

Contraindications are understood to include:

Absolute:

- sepsis/susception to infection
- coagulopathy
- spinal bifida
- spinal canal previously obliterated through trauma or surgery.

Relative contraindications:

- disability that interferes with proper usage or understanding of the device
- somatisation/somatoform disorders
- substance abuse, including recreational drugs, alcohol and opioids
- cognitive disorders.

Indicators of potential therapeutic failure:

- higher BMI, particularly above 36.5
- current smoker status
- higher baseline opioid use, particularly above 90mg oral morphine equivalent daily dosage (oMEDD)
- rapid opioid tapering
- uncontrolled diabetes.

Current evidence of efficacy

Through a review of research on SCS, there is understood to be limited high-quality evidence to show efficacy long-term. Clinical reviews indicate that there is a reduction in effectiveness of pain relief, with 30-40% of patients having a lack of pain impact at 24-36 months.

The role of the treating medical specialist

Workers who have an implantable device such as SCS are committing to a long-term treatment that may extend to use over the rest of their lifetime. As such, there is a responsibility for all parties to ensure that the worker has an optimum outcome with this device.

Reasonably incurred treatment costs

To determine whether the cost of a treatment or related service is reasonably incurred, ReturnToWorkSA's claims agents must consider:

- the appropriateness of the treatment,
- the availability of alternative treatment,
- the cost of the treatment,
- the actual or potential effectiveness of the treatment, and
- consensus by medical experts that the treatment is appropriate.

To support this determination, the claims agent may require information from the treating medical specialist(s), worker and/or independent medical specialists.

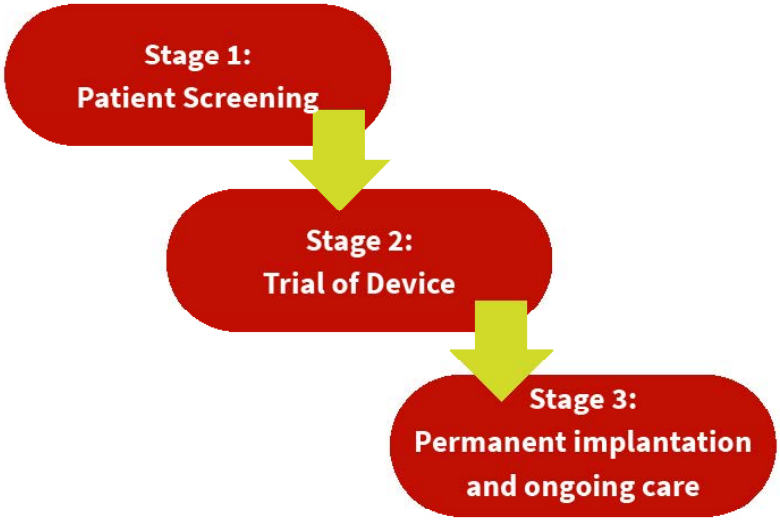
Medical specialist role

Medical specialists who recommend SCS as a treatment option should ensure the requirements outlined in this guideline have been met, including:

- Evaluating all treatment options to ensure SCS is only offered after other evidence-based, less invasive options have been exhausted.
- Carefully screening workers for SCS for contraindications, and taking reasonable pre-operative steps to optimise the patient's condition where indicators of potential therapeutic failure exist.
- Ensuring that the worker fully understands the expected treatment outcomes, lifespan of the device, and all risks of surgery, including the ongoing care required to adjust the device and the potential need for further surgery.
- Developing a set of clear and realistic goals for the worker in trialling the device, including holistic measures for improvement such as increased daily activity, sleep, emotional state, and improved quality of life.

There are three stage to treatment with SCS:

The specific requirements for each stage are outlined on pages 5-8.



Stage 1: Patient Screening

The treating medical specialist must ensure the worker has been appropriately screened and meets the criteria specified in this guideline, as informed by current evidence-based research and existing clinical guidelines.

Figure 1. Patient screening process

This information, as detailed below, must be provided to the claims agent in the form of a report to support approval of the costs associated with a trial of the device.

Diagnosis

- The worker has a clear diagnosis of one of the indicated conditions related to their work injury claim.
- The spinal pathway to the painful site has been distally preserved.

Contraindications and other conditions

The worker has been screened and found to have none of the abovementioned absolute contraindications. Where there are relative contraindications or conditions that could reduce device efficacy, additional supporting information must be supplied regarding the suitability of SCS, including plans for management of these conditions and/or details of pre-operative interventions to improve health.

This includes:

- There is no incidence of a previous implantable pain device having resulted in infection requiring hospitalisation or removal of the infected device.
- There is no evidence of uncontrolled diabetes.
- The worker has been screened for pacemaker and MRI use and/or potential future need, with relevant treatment planning in place to account for this.
- There is no evidence of current drug or substance dependence, abuse or misuse, including alcohol, cannabis, illicit substances and prescription medications (schedule 4 and 8 medicines) (DSM-5 or ICD criteria).
- Where the total oral morphine equivalent daily dose (oMEDD) exceeds 90mg, an opioid tapering program has commenced or is planned.
- The worker has been made aware of potential risks or treatment failure associated with other relevant characteristics, e.g. smoking, obesity. Ideally, the treating specialist will undertake activities to support the worker to improve their conditioning to optimise the chance of device success
- Assessment by either a psychiatrist or psychologist to confirm no psychological contraindications.

Treatment history

- There is evidence of prior conservative and multi-disciplinary treatment which has not resulted in clinically meaningful improvement in function or pain. Details of treatment should include physical and psychological therapies and medication trialled.
- Current medications and dosages, particularly for opioids or medicinal cannabis/CBD/THC.
- Treatments from the specialist to date including surgeries or other relevant services.
- Plans for future management by the specialist and a collaborative team including:
  - » physical therapists (physiotherapist, exercise physiologist, occupational therapist)
  - » psychologist/psychiatrist
  - » neurosurgery or pain physicians/surgeons
  - » where not the main treating specialist, access to a spinal surgeon or neurosurgeon to manage complications.

Worker confirmation

The worker has confirmed that they understand the procedure, potential benefits and risks, and and expressed their willingness to participate in rehabilitation activities and post-surgery device management.

Independent opinion

An independent opinion from a spinal surgeon, neurosurgeon or pain physician may be obtained and there should be medical consensus that SCS is a suitable treatment option. This will be arranged by the claims manager, where required.

Stage 2: Trial of SCS

Prior to approving the costs associated with permanent device implantation, a trial of at least 5 days, up to a maximum of 14 days, is required.

To be considered successful, the trial must satisfy the following:

- ✓ There are no major infections or complications from the trial surgery.
- ✓ There are no concerns from the treating specialist about suitability of the device based on the trial results.
- ✓ There is a 50% average reduction in pain based on at least two evidence-based outcome measures (not including the visual analogue scale).
- ✓ The area of pain has at least 80% coverage by device stimulation.
- ✓ The sensations and device are not intolerable or causing excessive pain (beyond what is reasonably expected from a surgical implant).
- ✓ There has been no increase in pain medications sustained over the course of the trial.
- ✓ There are improvements in sleep, wellbeing, activities of daily living, mood or other functional indicators of quality of life.

An increase in pain medications during the trial period should be considered an indication of an unsuccessful trial.

Trial evaluation

Treating specialists must provide a report on the trial outcomes to the claims agents within 10 business days of the completion of the trial. The specialist report must include:

- trial length
- surgery outcomes
- information on any relevant infections/complications from trial
- perceived suitability of the device based on clinical outcomes and the above criteria.

Worker information

Worker experience should be measured at minimum at baseline, during the trial and at the end of the trial with validated measures to capture:

- estimation of the area of pain covered by the device (%)
- sensations or pain experienced
- pain medication usage
- impact on quality of life and activities of daily living.

Stage 3: Permanent Implant and Ongoing Care

To maximise the long-term efficacy of the SCS, the worker should have access to ongoing support and care from a multi-disciplinary team. The treating specialist should have adequate resources to facilitate and encourage ongoing, face-to-face contact (where feasible) and support for the device users.

It is expected that the treating practitioner will organise follow-up appointments post-implant at regular intervals, as per best practice, including at least an annual review.

Long-term, the treating specialist should support the worker to have further regular check-ups to evaluate device effectiveness, any pain or analgesic use, and general wellbeing impacts.

Under the *Return To Work Act 2014,* the costs of therapeutic devices continue to be covered beyond the medical entitlement period, including costs related to the device such as post-surgical reviews. It should be noted that **only** the costs directly related to the device are covered - other concurrent pain treatments **not** related to the SCS would not be covered after the worker's medical entitlements cease.

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