

# Spinal Cord Stimulators

## Information for Workers

**Draft for consultation**

July 2025





# Introduction

As a worker with an accepted claim under the *Return to Work Act 2014* (the Act) you are 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 injured workers having access to a wide variety of high quality, evidence-based, treatment options that support their recovery from injury or reduce the extent of the injury.

Where the evidence-base for treatment is unestablished or emerging, ReturnToWorkSA may develop guidelines for medical specialists to define the criteria and indications for treatment and ensure optimal outcomes for workers. The use of Spinal Cord Stimulators (SCS) is a relatively unestablished and emerging treatment.

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 the right patients. However, this treatment is not without risk, and for many people, there are limits to how much SCS can reduce their pain.



## Purpose

This information is designed to support you to understand and make informed decisions about your treatment.

It includes:

- information on pain,
- an overview of SCS and its uses,
- the process for approval of costs associated with SCS,
- ongoing care, and
- insights from workers who have had SCS treatment.

It has been informed by:

- current research and reviews
- existing clinical guidelines SCS
- position statements from peak medical and pain bodies within Australia
- consultation with medical specialists, workers, claims agents, employers, and representative associations.

# What are Spinal Cord Stimulators?

Spinal cord stimulators are devices that deliver a mild electrical current to nerves in the spine. The doctor inserts a pulse generator under the skin, which creates electrical signals. The pulse generator is connected to two or more leads, which carry the electrical signals to the nerves in the spine. A remote-control device lets the user adjust the settings and turn the device on and off.

## How do they work?

While the way that these devices work isn't completely understood, experts think that they are able to stop pain signals getting to the brain by producing a tingling or numbness at the site of pain.

## Potential benefits and risks

### Potential benefits

SCS has the potential to:

- reduce levels of pain,
- improve health-related quality of life and mental wellbeing,
- increase ability to take part in usual activities,
- reduce pain medication use.

Not everyone will have the same response to the device. SCS is not a cure for pain. It's one tool in a pain management approach. How much it can reduce pain varies, even for the same person at different times.

### Potential risks

Like all surgeries, there are risks that come with having an SCS implant.

Common issues with SCS are mostly related to hardware failure but there may be other complications:

- electrodes or leads moving out of place,
- loose connections
- lead breakage
- battery failure
- unpleasant sensations
- pain, and
- infection.

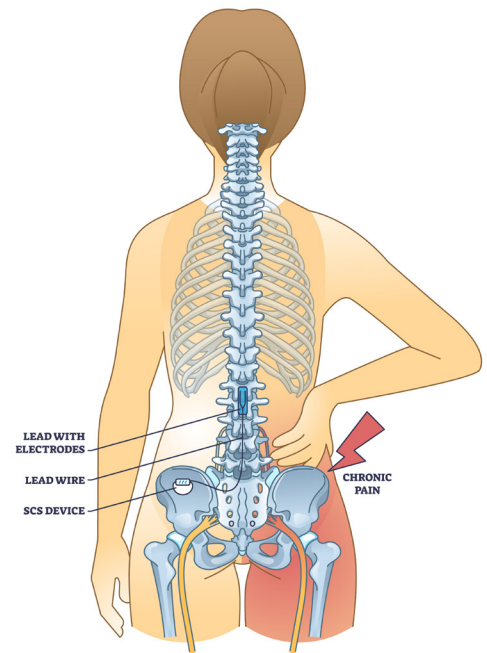
Research shows that between 30-40% of people will need some kind of revision or repair of their SCS, mostly within the first two years.

Less common risks are:

- spinal fluid leak (if inserted by spinal surgery)
- bruising
- skin erosion or allergic reaction, and
- (rarely) paraplegia or death.

*You should discuss the risks and potential complications with your treating specialist.*

### SPINAL CORD STIMULATION



### Questions to ask:

- What benefits can I realistically expect from SCS treatment?
- What effect is SCS most likely to have on my pain, wellbeing, and medication use?
- What goals of treatment are realistic for me? When should I expect to be back to usual activities?
- What are the risks involved with this treatment option?
- What is the likelihood that I will experience complications?
- What happens if I have an issue with my device? Who do I contact?

## Conditions that SCS can treat

In 2011, the Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine produced guidelines for use of SCS. They specified which conditions have the best chances of successful treatment and which conditions were less likely to have success.

Your treating specialist will help you to understand your diagnosis and how likely it is that SCS will be an effective treatment for your chronic pain.

### Most likely to be successfully treated with SCS:

- Failed Back Surgical Syndrome (also sometimes called “Persistent Surgical Pain Syndrome”)
- chest pain from heart conditions
- Complex Regional Pain Syndrome, and
- neuropathic (nerve) pain secondary to damage of nerves in the arms and legs.

## When is it less likely to work?

### Conditions with lower likelihood of successful treatment with SCS:

- pain associated with peripheral vascular disease
- damage to the nerves in the neck and shoulder
- lower back pain following surgery
- nerve pain in the chest, and
- other peripheral nerve pain syndromes (nerves in the arms and legs), such as those following trauma.

### Conditions unlikely to be successfully treated by SCS:

- pain associated with spinal cord damage
- central pain of non-spinal cord origin
- spinal cord injury where balance and fine sensory perception (such as touch) is affected below the site of damage, and
- perineal or anorectal pain (around the groin and buttocks).

# When SCS may not be suitable

Your general health and wellbeing will also impact how likely it is that SCS to work for you.

Your treating specialist will ask you about your medical history and may perform tests or scans to check for any conditions that increase the potential risks of surgery and/or affect how likely it is that SCS can reduce your pain.

They may want you to undertake physical, psychological or medicinal treatments to help improve your health prior to any SCS treatment.

## High-risk conditions

There are some health conditions that may prevent you from being able to have a SCS because there are high chances of either surgical complications or the device not working.

These conditions are:

- a current infection or tendency to develop infection
- thin blood or bleeding issues
- spinal bifida, and
- where previous trauma or surgery has destroyed the spinal canal.

## Conditions that could affect success of SCS

There are some conditions that might not prevent the use of spinal cord stimulators but can interfere with how well SCS works to reduce your pain.

These include:

- mental or physical disabilities,
- extreme focus on and emotional response to your pain and symptoms,
- substance dependence and abuse (including recreational drugs, alcohol, prescription and other medications),
- poor mental health,
- higher Body Mass Index (BMI),
- being a smoker,
- high daily intake of opioids or rapidly cutting opioid use, and
- poorly controlled diabetes.

### Questions to ask:

- Are there any conditions I have that could increase the risk of surgery and treatment?
- What can I do before surgery to help improve my chances of a good outcome?
- Am I confident that I can commit to this treatment?



# The cost approval process for SCS

## Reasonably incurred treatment

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
- agreement by medical experts that the treatment is appropriate.

To support approving the cost of treatment, your claims agent will require information from you, your treating medical specialist(s), and independent medical specialists.

## Stages of SCS cost approval and treatment

### Stage 1: Patient Screening

**Treating specialist  
diagnosis, assessment  
and recommendations**

**Psychological assessment**

**Independent medical  
examination**

### Stage 2: SCS Trial

### Stage 3: Permanent implant and ongoing care



# Stage 1: Patient Screening

“Patient screening” is the term given to the checks that your treating specialist will go through to make sure that SCS is a good treatment option for you.

Your specialist must ensure that you:

- have a confirmed diagnosis of a condition that SCS can treat with good chance of success,
- have no conditions that make SCS too risky for you to use,
- have treated, or have a solid plan to treat, any conditions that could reduce the chance of success, and
- can understand and commit to the treatment.

## Medical history

Your treating specialist must have a good understanding of your prior, current, and potential future medical conditions and treatments. This will help them identify any reasons why SCS might or might not be a good option for you, or if this is a good time for you to have this treatment.

For example, experts recommend that you should have tried other “conservative” (non-surgical) treatment options before trying SCS. This includes physical therapies, psychological treatment, and medications. Your treating specialist will need to explore what you have tried before, and if there is something else that could be tried first before moving to a surgical solution.

Other aspects that they will want to explore are:

- your general health
- history of surgeries and infection
- current medical conditions, such as pacemakers, diabetes
- use of tobacco, alcohol, drugs and medications
- what pain medications you have trialled and any side effects

## Psychological assessments

Some mental health conditions can impact how successful your pain treatment might be. That’s why a psychological assessment is part of the process of assessing whether SCS is likely to work for you.

Psychological assessments are conducted by a psychiatrist or psychologist, who will ask you about yourself, and might ask about:

- your history,
- family history,
- any prior treatments you might have had,
- what lead to your chronic pain, and
- how you manage your pain.

Psychological assessment can be a difficult experience and may cause emotional distress. If this happens, please seek assistance:

**Lifeline: 13 11 14** or text **0477 13 11 14**

**Beyond Blue: 1300 22 4636** or online chat at **beyondblue.org.au**

**Mensline Australia: 1300 78 99 78** or online chat at **mensline.org.au**



## Independent Medical Opinion

Finally, your claims manager will arrange for you to attend an independent medical examination to obtain a second opinion to assess whether SCS is a good option for you.

## What your claims manager needs at this stage

Your claims manager will need to collate the above information to support approving the cost of treatment. This information will include a report from your treating specialist and the independent medical examiner, and the outcome of your psychological assessment. They may also need reports or records from your GP and allied health professionals.

Collecting this information may take time, so it is important to continue with any current treatments and pain management options. The claims agent should keep you updated on the decision-making process.

# Stage 2: SCS Trial

You will need to trial the device to check if it works for you before your claims manager can approve the costs associated with a permanent implant. This approach to trialling the device follows the treatment recommendations of the Australian and New Zealand Faculty of Pain Medicine.

The trial will last for between 5 to 14 days, depending on the advice of your specialist.

During this time, you will be asked how well the SCS device is working for you. This might include questions about your:

- pain levels,
- sleep,
- daily activities,
- general wellbeing, and
- medication use.

It can be helpful for you to keep a record of this information so you can track how effective the device is for your pain and overall daily life.

This trial period will help you, your treating specialist, and your claims manager to reflect on whether a permanent implant is right for you.

Your specialist will send a report about the trial to your claims manager to support approval of the costs associated with permanent implantation, should the trial be successful.

# Stage 3: Permanent Implant and Ongoing Care

An SCS device is considered a “therapeutic appliance” under the Return to Work Act 2014. This means you will be covered for ongoing treatment and costs associated with this device.

If you need surgery, you are also entitled to up to 13 weeks’ income support to provide for time off work to complete your treatment and recovery.

ReturnToWorkSA expects that your treating specialist and their team provides you with ongoing care. This includes regular check-ups to check how well your device is working for you and if you need any adjustments.

## Questions to ask:

- How often do I need to have follow-up appointments?
- How far in advance should I book follow-up appointments?
- When am I likely to need surgery again? How long should the battery and device last?

# Considerations for using SCS

## Different types of SCS device

There are many types of SCS devices available. You should carefully discuss with your doctor which is most suitable for you.

The type of specialist you see may affect the types of devices they recommend or can offer. For example, a spinal surgeon may offer device options which involve implanting leads with very precise pain targeting into the spine – known as ‘flat paddle’ leads. This may require invasive surgery.

On the other hand, a pain physician may offer lead options that require less invasive surgery, but this may also offer less targeted pain relief.

## Battery options

Spinal cord stimulators have a battery to power them, and just like other powered devices, you have options of rechargeable and non-rechargeable batteries. There are benefits and drawbacks to each option.

For example, rechargeable batteries require less frequent replacement, but the recharging process might cause skin irritation. Non-rechargeable batteries may need more frequent replacement via surgery.

## Ability to have other treatments and medical procedures

There are certain treatments and medical procedures that could interfere with SCS devices. Or it may not be possible for you to have certain medical treatments while you have a device. Pacemaker implants are one example.

MRI scans are the most common medical procedure that an SCS device might interfere with. While MRI-compatible devices are available now, you should carefully review your options with your doctor and check whether all SCS device parts are MRI-compatible (including the leads).

It is a good idea to discuss with your treating specialist about the impact of future health events that you can reasonably foresee, such as if you are planning to fall pregnant or have other surgery scheduled.

## Impact of the device on your lifestyle

Having an electronic device implanted can have impacts on your day-to-day life. For example, you might not be able to go through security scanners at the airport and you may need to carry medical information when you travel. You may need to take more care in your movements to prevent the device leads from moving or becoming damaged. You might need to turn your SCS off when driving, or to prevent interference with other electronic devices.

It is important to think about the activities that you regularly take part in or would like to be able to do again and speak with your doctor about whether using a spinal cord stimulator will affect these things.

### Questions to ask:

- What is the difference between rechargeable and non-rechargeable device? What are the benefits and/or risks of each?
- For MRI compatible devices, are ALL components of the system compatible? i.e. including leads.
- What other models/manufacturers are there? What system might work best for me and suit my lifestyle/needs?
- What care instructions are there for the device?
- What things can interfere with the device (e.g. security scanners)?
- When will I have to turn it off (e.g. when driving)?



## Advice from workers who have had an SCS implant

### **Pain education is an important part of treatment.**

Understanding your experience of pain is key to helping with treatment. SCS devices can help with reducing pain but are not a cure. Pain education has helped others to have a successful outcome of surgery and manage their pain long-term.

### **Take time to choose the right device for you.**

Talk with your pain specialist about what type of device they recommend and why. Think carefully about what will suit your lifestyle and future health needs.

It's ok for you to do your own research and seek other opinions to make sure you know all your options.

### **It is helpful to connect with others who have had chronic pain and who have had SCS to hear their stories.**

You have probably seen both the promotional material showing the best possible outcomes with SCS, as well as some of the negative information, showing the worst possible outcomes.

Connecting with others can help you to learn more about what to realistically expect from this type of treatment. You may be able to develop a support network who can help you through the process of surgery and ongoing care.

### **SCS devices require a long-term commitment to their usage and maintenance.**

The best results from SCS usage will come with regular follow-up with your specialist, their treatment team, and the device technicians. Discuss with your specialist what their recommendations are for ongoing maintenance and support to get the best results for you.

Make sure you are confident that your pain specialist and treatment teams are accessible for you at regular follow-up. Your claims agent, GP or other specialists can help if you are struggling to access your specialist for any reason.



**ReturnToWorkSA**

**[www.rtwsa.com](http://www.rtwsa.com)**

**Phone: 13 18 55**

**[info@rtwsa.com](mailto:info@rtwsa.com)**

400 King William St, Adelaide  
South Australia 5000

**Opening hours:**

8:30am – 5:00pm Monday to Friday

If you are deaf or have a hearing or speech impairment you can call ReturnToWorkSA on 13 18 55 through the National Relay Service (NRS)

**[www.relayservice.gov.au](http://www.relayservice.gov.au)**

For languages other than English call the Interpreting and Translating Centre on **1800 280 203** and ask for an interpreter to call ReturnToWorkSA on **13 18 55**.

For braille, audio or e-text of the information in this brochure call **13 18 55**.

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