MEDICATIONS FOR SPINAL CORD INJURY PAIN

Medication may be one of the tools in your pain management toolbox. Remember, no one tool will work on its own to fix chronic pain. But, used in combination with other strategies, medication may help to improve your pain management. There are a range of medications that can be helpful for spinal cord injury pain. Pain medications work in different ways in the body and different types of pain respond to different types of medications. It is very important to match the type of medication to the type of pain you have for the best results.

Musculoskeletal pain (pain in muscles and joints) may respond to pain medications called *simple analgesics*. Simple analgesics include medications such as *paracetamol*. Paracetamol works to reduce pain and fever by reducing the release of chemicals that are linked to pain and inflammation. Paracetamol may be recommended for mild to moderate pain. It may also be used in combination with stronger pain medicines if you have severe pain. Note: Your doctor may suggest using paracetamol to help improve the action of other pain medicines as this can reduce the overall amount of medication you need to achieve a pain relieving effect.

Another medication that may be considered for musculoskeletal pain is a *non-steroidal anti-inflammatory drug (NSAID)***.** Some of these such as, *ibuprofen* are available over the counter from your pharmacist and other anti-inflammatory medications are available with a prescription from your doctor. An *anti-inflammatory medication* may be recommended if there is an inflammatory component to your pain because these drugs work to modify the inflammatory response by blocking the activity of an enzyme in your body. However, these drugs do not just target the chemicals in the inflamed or painful area – the medication works throughout the whole body – often causing side effects. For example, the protective layer in your stomach is also affected by these medications and this can lead to damage of the gut wall which can be very dangerous. **Warning!** ***Because of your spinal cord injury, you may find it more difficult to feel discomfort in your stomach from anti-inflammatory medications – your doctor will need to monitor you more closely if you take this type of medication for your pain***.

Neuropathic pain (nerve pain) is a very different type of pain and responds to medication that specifically targets the nervous system. There are two main types of drugs that do this - the anti-convulsants (or anti-epileptics) and the anti-depressants. Remember the gates in the spinal cord, and the volume control discussed in the episode **Understanding Pain after SCI.** These medications help to close the gates in the spinal cord and brain, and reduce the volume of the pain. The **anticonvulsant** group of drugs includes drugs like gabapentin and pre-gabalin and they work by reducing the excitability and the abnormal firing in damaged nerves after spinal cord injury. The **tricyclic anti-depressants** includes drugs like amitriptyline and work by changing the balance of chemicals in the spinal cord – increasing the amount of "gate-closing" chemicals available to reduce the volume of the pain messages being sent to your brain.

IMPORTANT! Take medication only as prescribed – don't increase a dose or decrease a dose unless you have discussed this with your doctor. Stopping certain medications abruptly can have serious side effects and taking more than the recommended dose is very dangerous.

What about opioids?

Opioids are very strong pain medications and they work well for a short period of time. This means that for acute pain, after surgery for example, they are very useful medications. Opioids are often used in acute care – in fact after the trauma resulting in your SCI, strong opioids such as morphine or oxycodone were possibly used, and would have been very good at controlling the acute pain of the injury.

Over time however, this situation changes and opioids become less and less effective. It seems that for chronic pain, opioids are not very effective at all, and they often have very severe and unpleasant side effects. Opioids work on opioid receptors that are found throughout the nervous system, in the brain and in the spinal cord, but also they work on cells in the gut. This is why people experience severe constipation with these types of medications. After SCI your bowel motility is already reduced and using opioid medications can make constipation worse and can lead to serious long-term bowel complications.

The other problem with opioid medications is that people commonly develop **dependence** and also **tolerance** of the medication. When prescribed opioid medication you will be warned about the risks of drug dependence or addiction with this type of medication. But **tolerance** is something that is less well known – and it can be a real problem! Tolerance means that over time, you no longer get pain relieving effects from the medication – no matter how high the dose goes! If you are taking this type of medication, you may have noticed that you feel the need to take more and more of it? The long term use of high doses of opioids can also result in other major side effects on **hormones** and over time, they can actually have the effect of reversing the pain-killing effect that they normally have and giving people what is referred to as **hyperalgesia or hyper-sensitivity** to pain – where a non-painful stimulus causes a sensation of pain.

I've had issues in the past with tolerance, my previous Dr had me on very high doses of opiates, and I was extremely tolerant and that has been changed now with my new pain doctor. Tolerance is a big problem, because when you take the medication continuously and then you really have a flare up and need it, it no longer works for you because you are completely tolerant of it.

Susan, incomplete paraplegia

Other side-effects of opioids include; drowsiness, blurred vision, dry mouth, headache, nausea, brain fog, memory loss, sleep apnoea, lowered immunity, reduction of testosterone levels, depression and there is a risk of overdose.

IMPORTANT! There are ways your body can generate a natural morphine-like chemical called "β-endorphin". Exercise for as little as 3-10 mins can produce significant amounts of Endorphins which activate receptors in a very balanced and effective way and they work to help relieve pain without the side effects associated with opioid medications.

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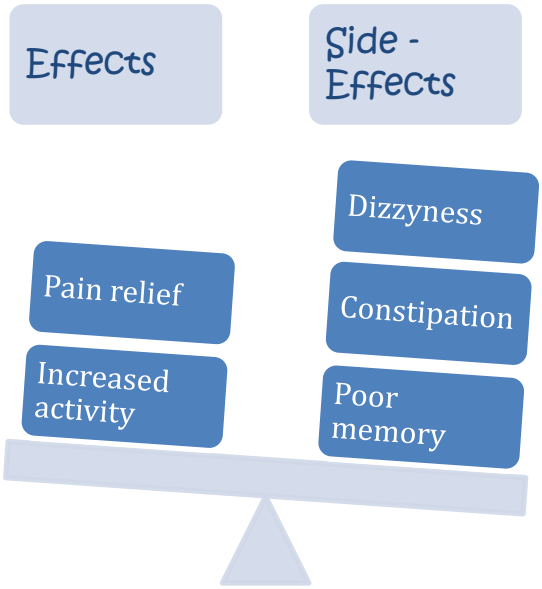
I used to take a lot of pain medication – it was the only way I could take the edge off. But it almost didn't ease the pain – it just made you care less about it!! It took a long time to reduce the medication, but now I'm not on any pain medication and I'm much happier with that, I have a clearer head and my memory is improved! Some things early on – I just can't remember as a result of all the medications.

Joe, incomplete paraplegia

Working out which medications are right for you is a matter of careful and monitored trial and error, and it is one of the many reasons why it is important to have good communication with your doctor. Choosing the right medication is often a balancing act – think about the impact of medication on your life. Ask yourself these three questions and discuss the answers with your doctor:

1. **How much pain relief is the medication providing? _____ %**
2. **Does taking the medication mean that you can do more and be more active? Yes / No**
3. **What are the side effects? _____**



It can be helpful to keep a list of your medications as part of your pain diary and use this to monitor how well your pain medications are working for you. Keep a record of how your pain medication affects the **intensity** of your pain, and also how this affects your **activity levels**, your **sleep** and your **mood.**

Medication	Dose	Frequency	Helpful?	Side Effects

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Even though medications can be helpful and do have their place in pain management, they are by no means an answer on their own. The nature of pain after spinal injury is that no one strategy, either medications or other things, is likely to work in isolation and the best relief comes from using a combination of other strategies alongside any medications that you may need.

Remember to review the resources on the website for more ideas about how to manage pain after SCI.

TOP TIP! For more information on medications for SCI Pain, take a look at these resources!

- http://www.aci.health.nsw.gov.au/chronic-pain/spinal-cord-injury-pain/medications-for-spinal-cord-injury-pain
- Read Chapter 6 of *The Spinal Cord Injury Pain Book* by Siddall, McCabe & Murray (HammondCare Media 2014)

I used to be on lots of pain medications. I was on gabapentin, as well oxycontin as well as endone, and they were all really high doses. They used to sometimes make me feel drowsy, lightheaded, and... I just didn't feel like doing as much as I thought I should be doing and I found myself sleeping a fair bit. Between me, my spinal doctor and my local GP, I decided that the level of pain that I was at, I think I could live with. And I wanted to try and come off the medication to see whether the pain went up, whether the pain stayed the same, or whether I was getting any side effects from all that medication. It took longer than what I was hoping that it was going to take, but I think that the approach that we took, coming off over something like 8 months, and not just trying to come off of it too fast, limited the side effects of coming off of it. And I actually found that while my pain medication doses were dropping, my actual pain wasn't getting any worse. So, we decided ...is the pain medication actually doing anything for me anymore? Let's try coming down off of it even more. And I'm pretty happy to say that today I'm not taking any medications, and my pain levels didn't get any worse. They are still the same as they were before, I still do have pain, but the joys of it is I'm not taking 20 tablets a day and still having the same amount of pain.

Brian, incomplete paraplegia