



Pain

After a spinal cord injury, you are sure to experience all sorts of pains. Pain can be caused by damage to your skin, muscle, tendons, bones, organs, and nerves. Each pain is different and come with specific treatment options. To properly treat your pain, it is helpful to understand the source of the pain.

How pain happens

When your body is hurt, a pain signal is sent to your brain to tell you that something is wrong. This signal is sent by nerves and your spinal cord. Usually the pain signal stops after your body is healed. Sometimes this signal can stay 'on' all the time even after your body has healed.

After a spinal cord injury, the connection between your body and brain is damaged. Often, things that should hurt don't. Your brain no longer gets your body's pain signal. Other times, faulty pain signals are sent to your brain even though your body is not hurt.

Types of Pain

Pain can be caused in many different ways. Each kind of pain has a different experience and different treatments. Some pains are easy to treat while others are more difficult.

Direct injury pain

Pain from an injury is the simplest kind of pain and easiest to understand. You feel this kind of pain when you cut, bruise, or break a part of your body. This pain is the easiest to treat and once your body is healed, the pain goes away.

- **How it feels:** sharp, cutting, gnawing, aching, stinging
- **Examples:** scraped skin, broken bones, pulled muscles, sprained ankle, cuts from surgery.

Overuse injury pain

Overuse injuries happen when you have a muscle imbalance. It can also happen when you do tasks over and over again. The injury happens slowly as two surfaces (e.g. bone and tendons) rub against each other. You might not even notice it's happening at first. Overuse injuries can cause pain that lasts weeks or months if you don't fix their cause.

Contact your Doctor or Nurse for more information.

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Medications can help the pain go away but the only cure is to fix the source of the problem.

- **How it feels:** sharp, achy, dull
- **Examples:** keyboard typing, wheeling a wheelchair, performing transfers, overhead movements (swim stroke, baseball pitching).

Organ pain

The pain in your organs is different than pain in other parts of your body. It feels deep and distant. Sometimes the pain can spread out and feel like there is pain in a different part of your body. This is called 'referred pain'. Organ pain can come from the following organs: heart, kidney, liver, stomach, intestines, bladder, spleen, and liver.

- **How it feels:** sharp, penetrating, distant, sickening, deep, squeezing, dull
- **Examples:** heart attack, kidney stone, bladder infections, indigestion, constipation, appendicitis, stomach ulcer.

Nerve pain (neuropathic pain)

Nerve pain is caused by damage to the nervous system including your spinal cord. Damaged nerves send faulty signals to the brain. The brain interprets these messages as pain or discomfort. Nerve pain is treated in a very different way than other kinds of pain. To learn more, check out the [Spinal Cord Essentials Nerve Pain](#) handout.

- **How it feels:** burning, tingling, pricking, pins and needles, itchy, shooting, squeezing, cold, electric shock
- **Examples:** pain cause by spinal cord injury, hitting your 'funny bone', your foot falling asleep.

Where pain happens

Usually pain felt is at the same place where harm is occurring. If you break your arm, your arm will hurt. However, sometimes pain can be felt in an area separate from the one being harmed. One example would be feeling pain in the left arm when having heart attack. This kind of pain is called 'referred pain'. It occurs because your heart's nerve signal crosses

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over to the nerve for your arm. You feel it in your arm but the source is your heart. Another example is burning pain in your legs after spinal cord injury. You might not have any other feeling in your legs but you still feel burning pain when sitting still. This kind of pain is probably nerve pain and the source is really your spinal cord, not your legs. A health care professional can help you find the source of your pains.

When pain happens

In most cases, pain happens after harm or injury to the area. This is known as ‘acute pain’. When the injury heals, the pain goes away. There are other cases when pain lasts a long time. Even after your body has healed, you can still feel pain. This is called ‘persistent pain’ or ‘chronic pain’. Chronic pain happens when there is permanent damage or when pain is not treated properly or early enough. The constant pain signal creates strong connections in your brain and you develop ‘pain memory’. Pain memory is difficult to treat because the source is no longer in your body. Treating the source of your pain right away can help prevent this from happening.

Treatment Options

There are many options for treating pain. Medications are often tried at first but sometimes other treatments can be more helpful to treat your pain. Your health care team can help find the source of your pain and the best treatment. Having a healthy lifestyle is always a good start. This includes a balanced diet, drinking enough water, exercising, and stretching regularly.

Medications

Medications can help take away the pain and allow you to continue your day-to-day activities. They give you comfort but sometimes do not treat the actual source of your pain. If you have pain, your doctor can prescribe long-acting and/or a short-acting medications. The long-acting medication treats the pain through slow release of the medication into your body. It treats the pain that is always there. The short-acting medication is released more quickly. It helps when pain becomes more intense or flares-up. Flare-ups are also called ‘breakthrough pain’.

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Muscle stretching and strengthening

When you have a muscle imbalance or poor posture, some muscles end up being used too much. Others are not used enough. This can cause tense muscles and pain. A program to stretch and strengthen your muscles can help. It helps rebalance the muscles. The underused muscle can take on more work and let the overused muscles relax and heal. A daily exercise program to maintain muscle balance can help prevent pain from returning.

Therapeutic massage

When the cause of pain is due to overused (tense) muscles, massage therapy can help. Massage stretches the muscle and can provide short-term pain relief. For long-term pain relief, the source of the pain needs to be fixed.

Acupuncture and TENS

Acupuncture and TENS (Transcutaneous Electrical Nerve Stimulation) help by making the pain signal travel less often to the brain. They are most helpful when the source of pain is known. If the source is not known, they can still help relieve pain but may not cure it. Acupuncture can also help to relax muscles if they are being overused.

Emotions and Pain

Pain can get worse when you're stressed or upset. This is similar to being cranky when you're hungry or when you didn't get enough sleep. Pain and emotions work hand-in-hand. Be aware of your thoughts and moods. Learning to cope and staying positive can help reduce your pain experience. To learn more, check out the [Spinal Cord Essentials Coping with Long Term Pain](#) handout.

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