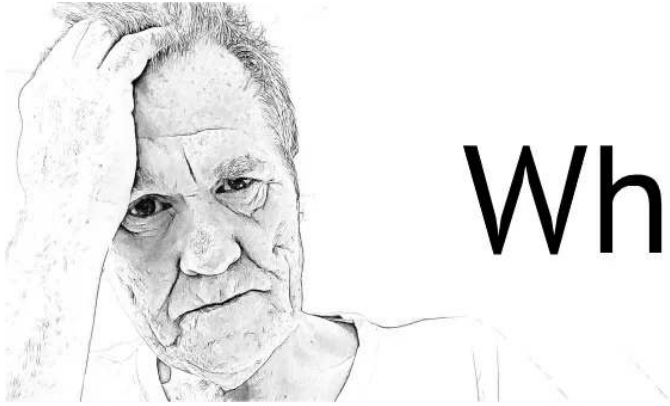




Understanding & Managing Pain-*Naturally*

A free guide from
Western Canadian
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What is Pain?

“What is Pain?” Three little words that ask an incredibly complex question. The dictionary defines pain as “a distressing sensation in particular part of the body”. Yet, even the dictionary does not adequately help us understand pain. This is because pain is different for everyone. It cannot be measured the same from one person to the next, as everyone’s pain thresholds are different. What is a mild annoyance to one may be excruciating pain to another.

While it may be difficult for some people to accept, especially those suffering from chronic pain, Pain really is a good thing. It is the body’s alarm system; it tells us that something is wrong or that something we are doing is dangerous. This alarm system is necessary for survival. So necessary, in fact, that people with [Congenital Insensitivity to Pain \(CIP\)](#) rarely live past the age of 3, on average. Their bodies don’t tell them not to do something that causes them harm – like touch a hot flame, poke themselves with things, or use broken limbs.

But when pain becomes persistent or chronic, it ceases to become a good thing; it interferes with sleep, mobility, nutrition, thought, sexual activity, emotional well-being, creativity, and self-actualization. In essence, chronic pain changes people.

Each of us understands on a very basic level what pain is, but in order to truly understand pain and how to change it, we must take a closer look at the mechanism behind pain.

Understanding Pain

Science tells us that the source of all pain – regardless of location – is actually the nervous system, and it is the status of your *nervous system* that determines the intensity of the pain. As an example, imagine getting a paper cut. If you received the paper cut at home, you'd probably notice the initial sting, then move about your day without so much as thinking about it again. However, if you were to receive the exact same paper cut at work, not only are you likely to feel *more* pain initially, the cut will probably continue to hurt for the remainder of your work day. Why is this? Because of the state of your autonomic nervous system when you're at work.

If you have attended any of our events, you will be familiar with the purpose of the Autonomic Nervous System and, more specifically, it's Sympathetic and Parasympathetic divisions.

The Parasympathetic Nervous System (PNS) is responsible for our Rest and Digest phase, while the Sympathetic Nervous System (SNS) governs our body's Fight of Flight responses and allows us to function under stress. When we feel pain, it is the SNS that kicks in and tells us to flee from the cause of the pain or signals our brains to protect our body from the cause of the pain with a myriad of responses.

Aside from the physical responses, pain also has a very real emotional response. The mind and body work together; they cannot be separated. We have an emotional response to everything; this is what makes us human. Physical pain, especially chronic pain, is often accompanied by feelings of frustration, resentment, anger, and helplessness. These emotions can also trigger the Sympathetic Nervous System, and the SNS can trigger emotional responses. So if you've ever felt as if living with chronic pain was a cycle, you're very right. To put it simply, physical pain causes emotional distress, and emotional distress can cause physical pain.

Many strides have been made in managing both chronic and acute pain, and many pain management clinics have been making the shift from treating pain to treating the person as a whole, including emotional triggers. These clinics, and the people that run them, are learning that part of the solution to chronic pain is calming the nervous system. They teach their patients how to over-ride their Sympathetic Nervous System's response by triggering their Parasympathetic Nervous System. Because the two are in constant opposition, increasing one automatically decreases the other.

Using light therapy can be very effective managing pain responses. By using light therapy devices regularly to encourage your body to increase its Parasympathetic responses. Regular use of a light therapy device will naturally start to decrease the amount of time spent in the Fight or Flight response of the Sympathetic Nervous System. Essentially teaching your nervous system to calm itself enough to help relieve chronic pain.

Managing Pain



The [Canadian Pain Resource Centre](#) estimates that chronic pain affects 20% of Canadians. One of the top reasons that people decide to try light therapy is because of chronic pain; but in order to relieve pain, it's important to understand what pain is and what causes it.

Types of Pain

It is generally accepted that there are two types of pain:

Acute Pain – Acute pain can be indicative of an injury. The pain can be intense, but short-lived. When the injury heals, the pain usually goes away.

Chronic Pain – When acute pain persists beyond healing of the original injury, it then becomes chronic pain. The pain can be mild, or intense/severe.

TYPES OF PAIN

Pain may be classified as being either acute or chronic - and their differences are significant

ACUTE PAIN

Comes on suddenly and often resolves quickly

Can usually be diagnosed and treated

Results from disease, inflammation, or injury to tissues

Is often a symptom of a recent event, such as an injury

CHRONIC PAIN

May last a long time, sometimes several months or longer

May be associated with a disease

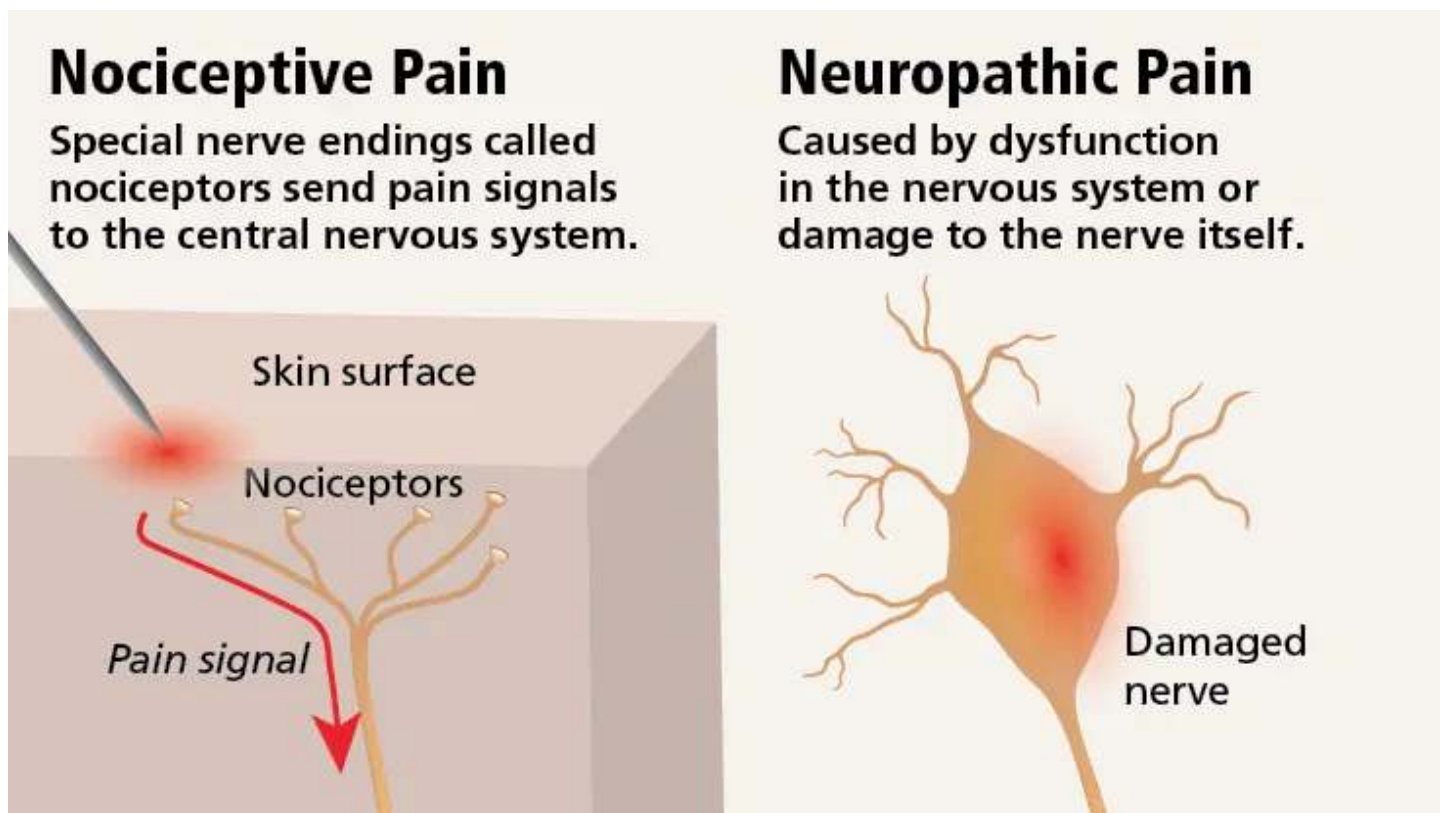
May be more difficult to treat than acute low back pain

Classifying Pain

Depending on where or how the pain is felt, it can be classified as either Nociceptive Pain, or Non-Nociceptive, or Neuropathic Pain.

Nociceptive Pain is caused by damage or injury. Nociceptors are the nerves which sense and respond to pain. They signal injury, impending injury, or irritation. The pain is usually localized and constant, and is treated very well by traditional painkillers and anti-inflammatories.

Non-Nociceptive Pain, or Neuropathic pain, is the result of an injury or malfunction in the nervous system, where the way that the nerves send pain signals to the brain is affected. There are many causes of Neuropathic pain, and traditional pain relievers don't usually help Neuropathic pain very much.



Managing Pain

Managing pain can be challenging, but determining the type and class of pain can make it easier. Nociceptive pain responds very well to typical painkillers, and usually resolves itself once the injury heals. Treating Neuropathic pain will be more complicated, as there typically is no defining cause.

Using light therapy is very helpful when [managing both classes of pain](#). Clinical-strength light therapy systems have been scientifically proven to prompt the body to naturally [increase its production of Nitric Oxide](#) from the hemoglobin. [Nitric Oxide](#) is a very powerful vasodilator (increases circulation). When you increase circulation to an area, you increase the nutrients to that area, allowing the tissue to heal faster.

[Nitric Oxide](#) is a neurotransmitter that tells the brain to shut off the pain alarm. It also has the same molecular structure as morphine, making it your body's own natural pain-reliever – without the narcotic side effects.

This increase in circulation and release of Nitric Oxide, make light therapy a very effective modality for healing Acute & Nociceptive pain. But what about the more difficult Neuropathic pain? Several studies have shown that light therapy may actually be [more effective at treating Chronic & Neuropathic pain](#). The reason, again, lies with the release of [Nitric Oxide](#). When dealing with Neuropathic pain, the problem often lies within the nervous system, more specifically, the body's inability to regulate the [Autonomic Nervous System](#).

As mentioned above, [Nitric Oxide](#) is a neurotransmitter; it plays a key role in the body's switch between the [Sympathetic and Parasympathetic Nervous Systems](#). By telling the brain to shut off the pain alarm, it also signals that it is time to switch from the [Sympathetic Stress Response to the Parasympathetic Relaxation Response](#).

The mind and body work together; we have an emotional response to everything – including pain. When we feel physical pain, it is often accompanied by feelings of frustration, anger, and helplessness. These emotions then trigger the [Sympathetic Stress Response](#) further.

In one of our earlier blog posts, we covered the [Sympathetic & Parasympathetic Nervous Systems](#), where we learned that the more the [Sympathetic Nervous System](#) is triggered, the more sensitive it becomes. So the more pain you feel, the more pain you *can* feel. When you decrease the frequency of Sympathetic Stress Responses, the easier it becomes to manage pain.

[InLight Therapy systems](#) are clinical-strength LED Light Therapy devices used at home or in a clinic setting. They have been diligently tested and proven to prompt the body to naturally increase its production of Nitric Oxide from the hemoglobin. Not only is Nitric Oxide a very powerful vasodilator, it has the same molecular structure as morphine; meaning that it is your body's natural pain-relieving relaxant. Nitric Oxide plays a key role in the switch between Sympathetic and Parasympathetic. Nitric Oxide slows the heart rate and encourages the body's Parasympathetic Nervous System.

For more information on [InLight Therapy systems](#), including on how you can add this effective modality to your health and wellness routine, [click here](#).

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