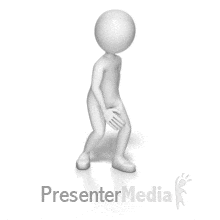
Everyone has experienced pain at some time or another. You are walking to your car and it is icy. You trip on the curb and fall down and injure your knee. An electrical message follows your nerve pathways from your knee to your brain to identify that you are injured. Your brain acknowledges and sends back a message to try and remove the pain. So, you take the weight off your knee and your brain sends the inflammatory responses to try and help your knee recover.

Depending on the extent of the damage, you treat the pain in various ways and once it is healed, the brain stops sending the message to your knee because it is recovered….or does it?

What if your nerve signal keeps firing and causes you to think you still have pain?

What if the pain in your knee never subsides? The pain continues because something went wrong, and the pain signals keep firing. This is the focus of this week’s health topic- chronic pain.

**What is chronic pain?**

Chronic pain is defined as pain lasting longer than 3 months. Chronic pain can develop after an injury as the scenario above shows. Therefore, treating the underlying injury may not always resolve the pain.

The causes of chronic pain are not always clear. It may occur because brain chemicals that usually stop pain (after healing from an illness or injury) may not be working right, due to an underlying medical condition (such as chronic fatigue syndrome), nerve damage, or chronic pain can simply develop with no obvious cause.

**Chronic pain is common in older adults but is NOT a normal part of aging**. Older adults are more likely to have long-term medical conditions (such as diabetes or arthritis) which leads to ongoing pain.

**92% of Canadians** agreed that those living with pain should have access to pain treatment that works for them, regardless of income.

**64%** of those individuals experiencing chronic pain say if they could afford to pay for more of the available treatments offered, they feel their discomfort and quality of life would be improved.

The prevalence of chronic pain is high among low income, older adults, females, veterans, and people affected by inequities and discrimination.

**The Problem:**

There are gaps in the current health-system that limit the reach and impact of chronic pain programs and services in Canada. There is no single organization in Canada that is charged with coordinating the many facets of pain management, so planning and care are fragmented, leading to an unnecessary duplication of effort and a waste of resources. Currently the treatment included for chronic pain in Canadian Public Health insurance plans are largely restricted to the conventional biomedical treatment options provided by physicians. This involves opioid prescriptions and or surgery. These treatments are not recommended as first-line therapy for mild-to moderate cases. The first-line therapy varies according to pain source, location, and strength of the symptoms. For example, the 2009 guidelines for the National Institute for Health and Care Excellence (NICE) had recommendations for early treatment for persistent low back pain as exercise, manual therapy or acupuncture, psychological and/ or pharmaceutical treatment can also be included in the treatment plan depending on the patient and the nature of their symptoms.A picture containing cup, indoor, container, toothbrush

Description automatically generated

This treatment plan is problematic because several pain management guidelines recommend the use of psychological behavioural, or less invasive physical interventions, either on their own or in conjunction with conventional pharmaceutical treatment. In Canada patients are often required to pay out-of-pocket for less invasive, non-conventional treatment options such as acupuncture, cognitive-behaviour therapy, and customised exercise programs. This creates an issue of access, where not all patients can afford uninsured treatment, especially if they are low-income or without private health insurance.

Currently in Canada, services for chronic pain management are fragmented across public and private health systems with an emphasis towards biomedical treatment within the public system.

Under treatment of chronic pain is a consistently identified problem, possibly due to the physician’s fear of overprescribing and lack of publically insured treatment options.

The Government of Canada is working on a mechanism to coordinate action, share learning and distributing best practices to policy makers, health professionals, patients, and the community at large. They began by developing a task force called The Canadian Pain Task Force in March of 2019. Moving forward the government is looking at improving care for Canadians related to chronic pain. If you are interested, you can read more about their plans in the following links. <https://www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/canadian-pain-task-force/report-2019.html> and

<https://www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/canadian-pain-task-force/report-2020.html> and <https://www.painbc.ca/blog/2019-canadian-pain-task-force-update>

**Check your knowledge of pain with theses quizzes:**

<https://www.arthritis.org/health-wellness/healthy-living/managing-pain/understanding-pain/managing-your-pain-quiz>

<https://www.arthritis.org/health-wellness/healthy-living/managing-pain/understanding-pain/quiz-test-your-pain-iq>

<https://www.medicinenet.com/pain_quiz/quiz.htm>

**Risk factors that increase your chance of developing chronic pain are:**A picture containing text

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* Past injuries or surgeries,
* Back problems,
* Migraines or other headaches,
* Arthritis,
* Infections,
* Fibromyalgia,
* Cancer pain,
* Arthritis pain,
* Endometriosis,
* Chronic fatigue syndrome,
* Neurogenic pain (caused by nerve damage),
* Psychogenic pain (pain not caused by disease, injury, or nerve damage).

**According to the American Academy of Pain Medicine more than 1.5 billion people around the world have chronic pain.**

Common symptoms can range from mild to severe pain that does not go away as expected. The pain can begin gradually like lower back pain or start with an injury/ accident and become chronic over time. The pain can be shooting, burning, aching, throbbing, squeezing, stinging, or electrical. The pain can cause physical soreness, tightness, or stiffness. Some chronic pain remains as an unknown origin.

**Sometimes pain is one of many symptoms such as:A person holding a sign

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* Feeling very tired or wiped out,
* Not feeling hungry,
* Trouble sleeping,
* Mood changes,
* Weakness, and
* Lack of energy.

**Chronic pain can also:**

* Interfere with your daily life, making it hard to get through daily tasks and activities.
* Takes a toll on your self-esteem,
* Make you angry, anxious, and/ or frustrated.
* Can limit your social and physical activities.
* The link between emotions and pain can create a cycle and when you are hurt, you are more likely to feel depressed.
* This can also lead to impaired or weak immune system functioning causing infections or illness to occur.
* Negatively impact you financially and threaten your financial security.
* Can disrupt family and marital relationships.
* Make you feel misunderstood and alone in suffering because it is an invisible illness. Some feel judged and stigmatized by others.
* Interfere with sleep, which raises stress levels. Combined, this makes your pain feel stronger.

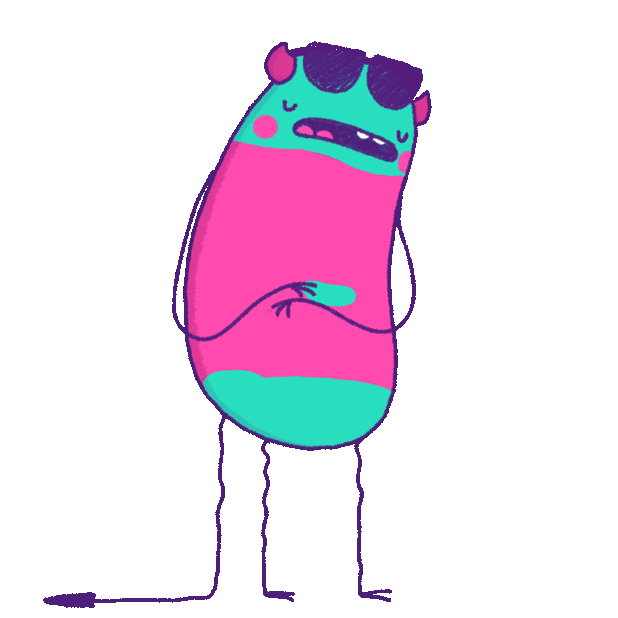
**To decrease your stress levels, you can:**

* Take good care of your body by eating well, getting enough sleep, and exercising regularly.
* Continue taking part in your daily activities which can boost your mood and decrease stress by participating in activities that you enjoy and socialize with your friends. Isolating yourself may cause you to have a more negative outlook on your condition which may increase your sensitivity to pain.
* Seek help from friends, family, and support groups.

The link between pain and depression is why doctors often prescribe antidepressants as one treatment for chronic pain. These medications can help with pain and the emotional strain associated with it.

About **25%** of people with chronic pain go onto develop **Chronic Pain Syndrome (CPS).**

What is CPS? CPS is when you have symptoms beyond pain alone such as depression or anxiety. CPS is difficult to treat, but not impossible. A mix of treatments like counselling, physical therapy, and relaxation techniques can help relieve your pain and other symptoms.

**Causes of CPS:**

* Arthritis/ other joint problems.
* Back pain.
* Headaches.
* Muscle strains and sprains.
* Repetitive strain injury.
* Fibromyalgia.
* Nerve damage.
* Lyme disease.
* Broken bones.
* Cancer.
* Acid reflux or ulcers.
* Inflammatory bowel disease.
* Irritable bowel syndrome.
* Endometriosis.
* Surgery.

The roots of CPS are both physical and mental. Some experts believe that those individuals with CPS have a problem with the system of nerves and glands that the body uses to handle stress which makes them feel pain differently. Other experts believe CPS to be a learned response so that when you are in pain you start to repeat certain bad behaviours, even after the pain is gone.

CPS can affect people of all ages and both sexes, but it is more common in women.

**How is chronic pain treated?**

The goal is to decrease the pain and increase your mobility. Treatment should help you to return to your normal daily activities without discomfort. A pain management plan should be developed in collaboration with your primary care physician and depends on your symptoms and underlying health conditions. Solutions can include medical treatments, lifestyle changes, or a combination of the two.

**Mild to moderate pain can be treated with:**

* Exercise, and getting sufficient sleep.
* Over the counter medications like Aleve, Ibuprofen, Motrin, and Tylenol.
* Complementary therapies (described below).

Talk to a doctor if the pain does not go away or worsens, as you may need a different treatment. Counselling may help you deal with your frustration, fear, anger, depression, and anxiety. Most cases of chronic pain can be managed.

Other methods of treating chronic pain are alternative therapies and complementary medicine. **Alternative** medicines are used to describe any medical treatment or intervention that is used in place of conventional medicine. **Complementary** medicine describes when alternative therapies are used simultaneously with conventional medicine. Complementary and alternative medicine (CAM) do not always work for everyone the same way. You may need to try several treatments and possibly use a combination of them.

**Acupuncture:**

One of the most common CAM therapies is **acupuncture** which is recognized by the World Health organization as a treatment for pain. This technique uses fine needles which are inserted into various acupuncture points but because the needles are fine, it does not hurt. They are left in for 40 minutes. They aid in the healing process and can provide significant pain relief with regular sessions. The purpose is to restore a healing flow of Chi so your energy can flow freely and reduce your pain. It does this by releasing endorphins in your body which are natural painkilling chemicals in your body. Acupuncture can also influence your level of serotonin which is involved with influencing your mood.

For non-opioid strategies specific to your individual pain, visit the following websites and then review your options below.

\*\*\*Best practises easy to use document to determine treatment specific to your pain:

<https://www.cadth.ca/sites/default/files/pdf/non_opioid_options_for_managing_adult_chronic_pain.pdf>

and

<https://www.nccih.nih.gov/health/chronic-pain-in-depth>

**Other non-opioid treatment options that may help you improve your chronic pain symptoms, whether in combination with other treatments or individually:**

**\*\*\*An Angus Reid survey in July of 2019 states that Cannabis is effective by three-quarters (74%) of those individuals who have used it to treat their pain. This is the highest number among all physical or medicinal treatment methods.**

**Cold and heat:**

* Cold therapy soon after an injury occurs to relieve pain, decrease inflammation and muscle spasms, and to help speed recovery.
* Heat therapy after a few days will raise your pain threshold and relax muscles.

**Exercise:**

* Staying physically active helps with more common pain conditions including low back pain, arthritis, and fibromyalgia.

**Dietary approaches:**

* Still need further research to determine their effectiveness as a pain treatment.

**Weight loss:**

* Many painful health conditions are worsened by excess weight. Therefore, losing weight helps relieve some kinds of pain.

**Physical Therapy (PT) and Occupational Therapy (OT):**

* PT helps restore and maintain your ability to move and walk.
* OT helps improve your ability to perform activities of daily living such as dressing, bathing, and eating.

**Transcutaneous Electrical Nerve Stimulator (TENS):**

* A very mild electrical current is emitted to block your pain signals going from your body to your brain.

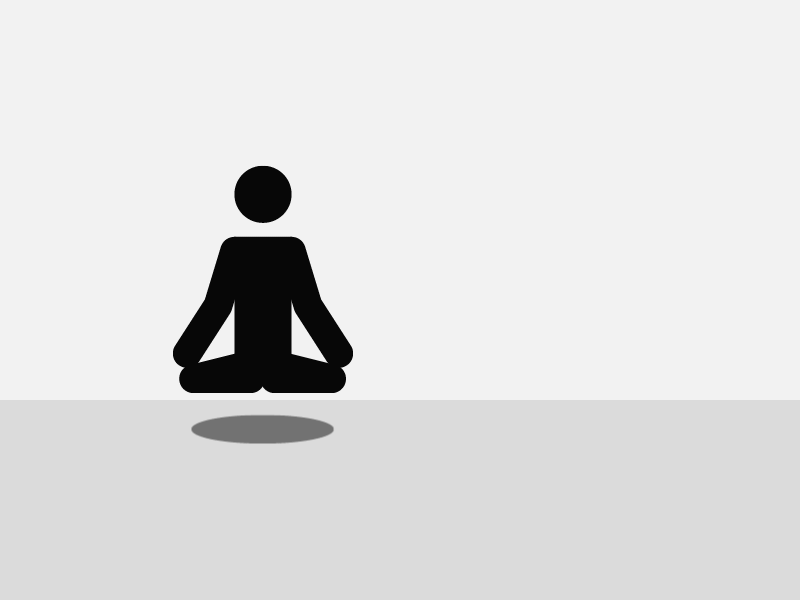
**Ultrasound:**

* This directs sound waves into your tissues. It is sometimes used to improve blood circulation, decrease inflammation, and promote healing.

**Mind-Body Techniques:**

* Helps the mind’s ability to affect the functions and symptoms of the body by using meditation, mindfulness, progressive muscle relaxation, breathing exercises, and hypnosis therapy, to name a few.
* Studies have found that this technique helps manage chronic pain, improve mood, reduce stress, and treat anxiety disorders.

**Biofeedback:**

* Is a process that enables individuals to learn how to change physiological activity for purposes of improving health and performance.
* It consists of sensors being placed on body and physiological data can be viewed digitally in real time. This allows for immediate correction to reduce your symptoms.

**Yoga and Tai Chi**

* These incorporate breath control, meditation, and movements to stretch and strengthen muscles. This may help with chronic pain conditions such as fibromyalgia, low back pain, arthritis, or headaches.
* Yoga reduces stress, improves your fitness, decreases your discomfort from low back pain, and improves the quality of life in cancer survivors.

**Therapeutic massage:**

* May relieve pain by relaxing painful muscles, tendons, and joints, relieving stress and anxiety, and possibly impeding pain messages to and from the brain.

**Chiropractic:**

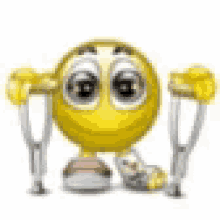
* Corrects the body alignments to relieve pain and improve functions which helps the body heal itself.

**Psychotherapy:**

* Offers many avenues for pain relief by helping to reframe negative thinking patterns about pain.

**Massage:**

* Many people turn to massage to ease pain, reduce stress, and decrease anxiety and depression.
* There are different types of massage ranging from deep tissue to hot stone massage.
* Massage is an excellent way to relax your body, while relieving muscle pain and inflammation.

**Pain-relieving devices:**

* Includes splints, braces, canes, crutches, orthopedic shoes, etc.

**Topical pain relief:**

* Ointments applied to the skin for pain relief.

**Over the counter medications:**

* Pain relievers such as Motrin, Tylenol, Advil, and Aleve all may help with mild to moderate pain relief. Read the directions and dosing carefully, as increased doses may damage your organs such as your liver and kidneys.

**Herbal pain relievers and nutritional supplements:**

* There is limited scientific evidence supporting their effectiveness in pain management.
* Some evidence that glucosamine sulfate and chondroitin sulfate may be marginally effective for knee osteoarthritis. Other studies show no effect at all.
* Dietary supplements such as fish oil has showed early evidence of benefits to pain reduction, but further research is required.

**Non-opioid prescription medications:**

* Can be very effective in treating condition- specific pain. Ex; triptans for migraines, gabapentin or pregabalin for nerve pain.

**Corticosteroid injections:**

* Can be used occasionally to relieve pain and inflammation caused by arthritis, sciatica, and other conditions.

\*\*\*Ensure to notify your primary care physician if you are taking any herbal remedies, as some herbs may interact with medications. If you are practicing any specific techniques to alleviate your pain, ensure to involve your primary care physician to enable your pain management program to be more effective.

**Chronic pain Syndrome:**

<https://www.webmd.com/pain-management/chronic-pain-syndrome-overview>

**Where we are in Canada with treating chronic pain:**

<https://www.painbc.ca/blog/2019-canadian-pain-task-force-update>

**Arthritis and treating pain:**

<https://arthritis.ca/treatment/pain-management>

**Arthritis/ pain conditions- beware of false claims:**

<https://www.arthritisresearch.ca/quackery-and-arthritis/>

**Fibromyalgia and pain relief:**

<https://myhealth.alberta.ca/Alberta/Pages/living-with-fibromyalgia.aspx>

**Alternative methods to controlling pain. Patient handouts and information:**

<https://www.cadth.ca/tools/non-drug-ways-manage-chronic-pain>

**Herbal remedies:**

<https://www.nccih.nih.gov/health/herbsataglance>

**Physical activity to control pain:**

<https://www.cadth.ca/tools/physical-activity-chronic-pain-synopsis-evidence>

**Complementary treatments for pain related to cancer:**

<https://www.cancer.ca/en/cancer-information/diagnosis-and-treatment/pain/complementary-therapies-for-pain/?region=on>

**Financial assistance due to chronic pain?**

<https://www.thenba.ca/disabilities/chronic-pain-disorder/>

**Osteopath:**

<https://kingsportclinic.com/>

<https://osteopathypainclinic.com/locations.html>

<http://www.novascotiaosteopaths.ca/wp/list-of-osteopaths/>

**Promising new treatment for pain (still in the research phase):**

<https://www.cbc.ca/news/health/chronic-pain-app-1.5224751>

<https://www.medicalnewstoday.com/articles/a-promising-new-mechanism-for-long-lasting-pain-relief>

**Psychologists of Nova Scotia may be able to improve quality of life for those living with chronic pain through different therapies:**

<https://apns.ca/>

**Chronic pain journey:**

<https://www.statnews.com/2019/08/12/chronic-pain-journey-five-things-understand/>

**Webinars and learning resources related to pain:**

<https://www.islandhealth.ca/learn-about-health/pain-pain-management/chronic-pain-resources>

<https://www.painaustralia.org.au/about-pain-1>

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<https://canadian-nurse.com/en/articles/issues/2021/january-2021/covid-19-articles-to-support-your-practice>

<https://cpa.ca/psychology-works-fact-sheet-chronic-pain/>

<https://ubcmj.med.ubc.ca/ubcmj-volume-7-issue-1/chronic-pain-management-and-canadian-public-health-insurance-do-we-need-more-comprehensive-health-care/chronic-pain-management-and-canadian-public-health-insurance-do-we-need-more-comprehensive-health-care/>

<https://www.cadth.ca/sites/default/files/symp-2018/presentations/april17-2018/Breakfast-Session-3-Owen-Williamson.pdf>

<https://www.health.harvard.edu/staying-healthy/non-opioid-options-for-managing-chronic-pain>

<https://www.healthline.com/health/chronic-pain>

<https://www.healthlinkbc.ca/health-topics/cpain>

<https://www.practicalpainmanagement.com/common-alternative-treatments-chronic-pain>

<https://www.webmd.com/pain-management/guide/pain-management-alternative-therapy>

<https://www.webmd.com/pain-management/guide/understanding-pain-management-chronic-pain>