



## **ALL ABOUT PAIN**

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### THE MEANING OF PAIN

Pain is a common symptom of arthritis — for the majority of patients, it's the number one concern. At times it can feel like there's nothing you can do about it, which can make you feel helpless. Living with chronic pain can also be very isolating — it can limit your activities and lead to frustration when it feels like those around you can't see what you're going through.

New research continues to emerge in the area of chronic and persistent pain. Our aim in this section is to share some new information and explore ways to minimize the impact of pain on your life.

A word of caution: do not ignore pain. Pain is a signal from the body to the brain meant to protect you. Sometimes it goes overboard, and it doesn't necessarily reflect actual damage, but its purpose is to remind us to protect a diseased or damaged joint or strained muscle or tendon. Pain can be caused by something that we do (i.e. too much activity or the wrong activity) or don't do (i.e. if we sit for long periods of time and don't move around enough). It can also be caused by the arthritis disease process itself.



## Acute and Chronic Pain

Acute pain is usually caused by an injury and serves to protect you. Your brain receives the pain message and sends signals to your body to respond. Acute pain acts like a warning system. If you step on a piece of broken glass, you experience pain that prevents you from putting weight on the injured foot. If you put your hand on a hot stove, pain makes you remove your hand quickly. Acute pain can help you get away from what is causing harm and then remind you to protect the injured part of your body and help prevent further damage. Usually the pain will

settle as the damaged part of your body heals and no longer needs protecting.

Some people think the term "chronic pain" means severe or bad pain. It actually means pain that occurs for a long time, regardless of intensity. Some health professionals use the term "persistent" instead of chronic

# Hurt Does Not Equal Harm

Chronic pain does not necessarily indicate ongoing damage. We used to believe that chronic pain was due to an injury that had not healed.

New research shows that this isn't the case for most people.



Research suggests that disease activity and tissue damage are actually a poor predictor of people's pain levels.

Source: RB Fillingim et al. Genetic contributions to pain: a review of findings in humans, 2008

In fact, one of the most dangerous things about chronic pain is that it can make us afraid to move for fear of causing lasting damage. This causes our muscles to weaken from underuse, which makes us more prone to injury. Your health care team will be able to help you distinguish what kinds of pain you should watch out for and what kind of movement is best for you.

#### All Pain Is Not the Same

We used to believe that people with the same injury or with the samedisease in the same stage would have the same amount of pain. Ample evidence now shows that this isn't true. For example, people who have the same type of surgery without any complications can report widely different amounts of postoperation pain. Many factors can affect people's experience of and tolerance for pain.



Pain is complex, and what works for one person may not

necessarily work for another. It's also important to understand that a single strategy may not be enough to provide maximum relief for an individual person's pain. Chronic or persistent pain may require a combination of strategies. Medications are only one part of an overall strategy to help you reduce and cope with your pain, as well as improve your function and ability to do daily-living activities, and lessen the emotional stresses caused by your chronic pain.



### PAIN AND YOUR BRAIN



Pain happens in your brain, but this is not the same thing as saying "it's all in your head!" Pain signals are sent from nerve endings in your joints, muscles and other tissues up through the spinal cord to the brain, which actually interprets and experiences the pain.

What does that mean? It does not mean that your pain is imaginary or that you could stop it if you wanted. But it does mean is that it's possible to change how your brain responds to and perceives pain.

The nerves in your body can only tell your brain that something has happened. Your brain needs to interpret all the information. Your brain assesses information incredibly quickly. It carries information from your nerves, your immediate environment, as well as life factors like your beliefs, age, earlier experiences of pain and your emotional state. It is only after your brain interprets all this information that you feel pain.



#### Your Brain on Chronic Pain

Chronic pain can cause a process called sensitization. Your nervous system is always searching for pain in case it signals a problem and turns up the volume and distorts pain when it is experienced.

When we experience pain for a long time, our nervous system remains in a state of heightened response. It's ready to notice the slightest twinge and can cause pain to feel out of proportion to the original cause.

Our brains and nervous systems are always changing in response to experiences. This is called "neuroplasticity". We're built to recognize patterns and form pathways. When you repeat a movement or activity on a regular basis your brain creates a strong pattern of nerve connections. The more often we experience the same thing, the easier it is for that message to get passed along. This is an extremely useful process as it helps us to learn things and react quickly. That's why practicing something makes it easier.



But sometimes this process works against us. If a movement is painful for long enough, the brain will strengthen the connection between the movement and pain. This is sensitization. The body may be healed as well as it can be, but the movement still hurts. Sometimes even preparing to do the movement might be enough to cause pain.

Much remains to be learned about the genetic and environmental factors that could make some people more susceptible to sensitization.

#### The Good News

You can make these same processes work for you. It is possible to train your brain to change the way you experience your pain and to dampen the pain signals coming from the body to the brain. We still have a lot to learn about how to do this, but there are some proven **strategies that you can try. It isn't easy**—just like with sensitized pain pathways, these techniques take repetition to work. You need to build a pathway and strengthen it through use over time.

It may be difficult to believe that you can affect your pain levels, but you've probably noticed that you are less aware of your pain at certain times — like when you are relaxed and engaged in an activity you really love. Your pain doesn't necessarily go away, but you will probably be less focused on it. The strategies in this section work in much the same way. With practice, they will get easier and you will become better at them.

# **Understanding Pain**

This five-minute video discusses evidence-based approaches to chronic pain management from PainAustralia.



## THE PAIN CYCLE



In order to understand the ways that pain can be reduced, we need to understand a little more about how pain works.

Chronic pain can be increased by six interrelated factors. They are:

- Physical problems caused by injury, disease or surgery (disease pain)
- Tense muscles
- Psychological stress
- Fear, anger and frustration
- Depression
- Fatigue



You've probably noticed these interactions in your own life. When you are engaged in an activity you enjoy, your pain probably bothers you less. When you are feeling stressed, tired and emotional, your pain can peak.

Think for a moment about the ways that each of these factors can interact and build on each other.

What are some ways that pain and depression might be related? Arthritis pain might mean that you can no longer go hiking with your friends. Missing out on activities you used to enjoy and feeling left behind can lead to negative feelings.

What about tense muscles and pain? Tense muscles can be a reaction to pain as your body tries to brace a damaged joint. But tense muscles can also cause pain, because doing everyday activities with tense muscles can strain them.

Stress can also cause tense muscles, and can make you feel angry, scared and frustrated as well. These emotions can be exhausting, resulting in fatigue. Feeling fatigued and unhappy for a long time are both symptoms of, and can worsen, depression.



The natural chemicals in our bodies that are connected with tiredness, stress, anxiety or depression are very similar to the chemicals used to communicate danger or damage. In a sensitized nervous system, chemicals released by low moods can "turn up the volume" on pain even more, making our pain worse.

Reference: <u>Understanding Persistent Pain – Tasmania Department of Health & Human Services</u>

# Breaking the Pain Cycle

While this may all sound pretty dismal, the good thing about understanding the pain cycle is that every interaction can also be reversed or interrupted.

Your brain can send signals to your body that change the way you experience pain. These signals use chemicals that dampen the pain signals sent from the body to the brain. The release of these chemicals may be increased by physical activity, as well as by relaxation exercises and techniques.

The following sections you break the pain cycle. For more information on relaxation techniques, visit our sections on Muscle Relaxation, Visualization, Distraction and Meditation & Mindfulness.

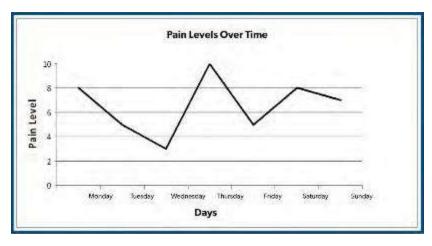
As you can see from the pain cycle diagram, fatigue, stress and depression are intimately related to pain. For more information, please check out our <u>Mental Health and Well-being</u> learning module: <a href="https://arthritis.ca/support-education/online-learning/mental-health-and-well-being">https://arthritis.ca/support-education/online-learning/mental-health-and-well-being</a>



### MANAGED VERSUS UNMANAGED PAIN

Does this graph look familiar to you? Do your pain levels **fluctuate** over time?

# **Unmanaged Pain**



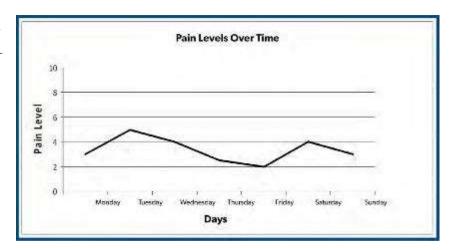
Many people with chronic pain alternate between good days and bad days, or even good and bad times in each day.

It can happen easily. If you're having a good day where you're not in a lot of pain, you might try to catch up on all the work or chores you've gotten

behind on. Or you might do something you enjoy a lot, like gardening or going dancing. If you overdo it, a good day can lead to a bad day where your pain level spikes and you end up on the couch or in bed trying to recuperate.

In learning to better self-manage your chronic pain, your goal is to have your pain levels look more like this second graph.

# Managed Pain



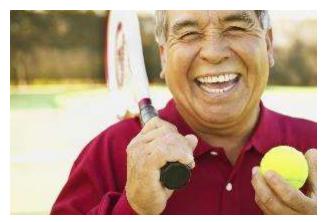
# Tracking Activity and Pain

It can be useful to track your activities over a week or two so you can recognize your own patterns, on both good days and bad days. This downloadable <u>Activity Diary</u> can help you to do that: <a href="https://arthritis.ca/AS/media/pdf/Support%20and%20Education/EN-activity-diary.pdf">https://arthritis.ca/AS/media/pdf/Support%20and%20Education/EN-activity-diary.pdf</a>



#### Article 5 of 20

# ACTIVE VERSUS PASSIVE PAIN STRATEGIES



People have different styles of coping with pain. Research has linked a passive coping style to greater pain, disability and depression than an active coping style.

Reference: <u>Covic C et al. "Depression in Rheumatoid Arthritis</u>
<u>Patients: Demographic, Clinical, and</u>

<u>Psychological Predictors"</u>. *Journal of Psychosomatic Research*, 2006.

# Active coping strategies include:

- seeking information;
- seeking support;
- physical activity;
- relaxation exercises;
- stress management; and
- taking steps to improve your situation.

# Passive coping strategies include:

- not being physically active;
- avoiding social situations with friends and family;
- self-blame; and
- avoiding facing the situation directly.

# The attitude to strive for is positive.

That is not to say you should be unrealistic. No one is suggesting you should try to tell yourself, "With the power of my brain I will be pain-free!" The goal here is a realistic attitude. Rather than thinking "Nothing I do will make a difference," try "I may have to live with pain, but there are things I can try that could help make life better." Remember to celebrate small wins. While you may not be able to do everything you could before because of your pain, take time to recognize and celebrate small improvements and achievements. This will help you maintain a positive attitude.

Taking responsibility for managing your joint health is important. This next section will examine some active coping strategies to help you manage your pain.



## COPING WITH PAIN

There are a number of different approaches you can use to manage your pain. You've probably already developed some successful means of coping. In this section, we will explore

- heat and cold;
- posture;
- muscle relaxation;
- visualization:
- distraction;
- meditation and mindfulness;
- physiotherapy and occupational therapy;
- massage, acupuncture and spinal manipulation; and
- physical activity and exercise.

# Short-Term Pain Relief vs. Long-Term Pain Management

Pain relief strategies are short-term methods to reduce pain intensity in the moment, for example taking a pain medication or using an ice pack for relief of the pain in your inflamed knee.



Pain management techniques seek to improve pain levels over time. Pain management requires you to be more actively involved and make a longer-term commitment. Pain management includes approaches such as exercising, eating well, taking part in activities you enjoy, and using relaxation techniques like mindfulness meditation. In this section we'll discuss both long- and short-term pain strategies.



# Article 7 of 20 HEAT AND COLD



These short-term pain relief techniques may seem self- explanatory — many people have used an ice pack or a hot water bottle at some point in time for relief — but many people use the wrong approach to treat their symptoms.

Heat should NOT be used if a joint is inflamed. Heat is helpful to relax tight muscles. It also stimulates blood flow and improves circulation, increases your range of motion, and reduces stiffness. When we say you should warm up before exercising, we mean it literally.

Heat can be applied using

- Hot packs;
- Warm baths or showers:
- Electric blankets or heating pads, when awake;
- And hot water bottles.

Cold helps to reduce inflammation. You should apply a cold pack to a joint that is inflamed (hot to the touch) or swollen. Cold can be applied using:

- Gel packs that you can keep in your freezer
- Ice cubes in a plastic bag
- A package of frozen peas or corn

With hot and cold treatments there are some precautions to observe:

- Check to make sure your feeling is normal in the area you are going to treat. Can you feel the difference between hot and cold? If not, don't use either.
- Make sure your skin is in good condition no open wounds or infections.
- Never apply heat over patches containing medications as this can lead to rapid absorption of the medication and possible negative side effects.
- Don't use heat or cold on an area where you've applied any form of cream/ointment to treat your pain.
- Do not use hot or cold treatments for more than 15 minutes at a time. If needed you can use the treatment again after 20 to 40 minutes.
- Wait 10 to 15 minutes after using cold treatments before you start exercises. Your muscles will need time to warm up and relax.
- Protect yourself by using a cloth cover or towel between the heat/cold pack and your skin.



# Article 8 of 20 POSTURE



When we think about posture we might imagine standing up straight and balancing a book on our head. But posture (the way you hold your body) is about much more than that.

Take a moment to notice what position you are currently in. Are you slumped on a chair? Holding your phone tightly in one hand? How long have you been in that position?

Training yourself to frequently check what position you're in and change it regularly is a great long-term pain management strategy. Our <u>Daily Living</u> course has detailed information on how to make adjustments so you are in an optimal position when you're staying in one position for a length of time, like standing at your kitchen counter, sitting at a computer or driving a long distance: <a href="https://arthritis.ca/support-education/online-learning/daily-living">https://arthritis.ca/support-education/online-learning/daily-living</a>



# Article 9 of 20 MUSCLE RELAXATION



Another long-term strategy for pain reduction is learning to relax your muscles. As muscles become less tense, it can get less painful when you move your joints. In addition to releasing tension throughout the body, relaxation helps you to sleep.

Here are some suggestions that apply to any relaxation exercise:

- Pick a quiet time and place where you will not be disturbed.
- Try to practice at least four times a week.
- Keep at it. Because you are retraining your brain, it could take several weeks of practice before you really get the full benefit.

Before starting, you might want to warm up with a deep breathing exercise. This exercise is very simple and can be done anywhere, any time you are feeling tense. If you have lung problems check with your doctor before trying deep breathing techniques.

# Deep Breathing Exercises

Take a long, slow breath in through your nose, holding it for a few seconds, then slowly breathe out through your mouth. Try to make your breathing as smooth as possible. When you inhale, you will feel your stomach area gently expand and when you exhale, you will feel your stomach area gently contract. Continue until you feel a greater sense of calm and relaxation.

#### Muscle Relaxation Exercise

The first step in learning to relax muscles is to learn the difference in feeling between being tense and relaxed in each muscle. Check your body for tension. Notice if any part of your body feels tight. In the Progressive Muscle Relaxation exercise below, you will voluntarily tense each muscle and then release the tension. Once you're used to the exercise, you won't need to actively tense your muscles, you'll be able to identify existing spots of tension and release it.

If you have pain in a particular area today, tense those muscles gently only or not at all, and focus on trying to relax them. If you have fibromyalgia, you may want to gently move the muscles or simply focus on them and breathe deeply.

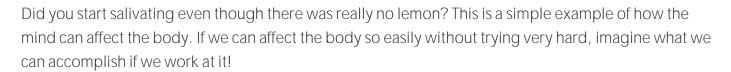


## VISUALIZATION

Visualization is a powerful short-term pain management strategy.

To use the power of the mind, read the instructions below, pausing between each step.

- 1. You are sitting at a table. (pause)
- 2. There is a large wooden bowl filled with bright lemons on the table. (pause)
- 3. Look at the lemons. (pause)
- 4. All those bright yellow, juicy and ripe lemons. (pause)
- 5. Pick a lemon from the bowl. (pause)
- 6. Bring it up to your nose and smell the citrus. (pause)
- 7. Roll it in your hands. (pause)
- 8. Slice the lemon in quarters and imagine biting into the lemon, with the tart juice squirting into your mouth and rolling over your tongue. (pause)



"Visualization, often called guided imagery, or creative visualization, is a powerful, natural way to deal with chronic pain. It involves imagining, in great detail, an ideal situation while experiencing the emotions that would emerge from that best-case scenario.

So, if you're feeling locked up in pain, you would imagine a vibrant, healthy, comfortable body and allow yourself to feel what that would be like. Stressed out about work? You could visualize your day flowing with ease.

This imagined scenario creates a real physiological response that can ease the stress that exacerbates pain and actually change the physical manifestation of it."

Polly Campbell, "Imagine a Life Without Pain", Psychology Today 2012

Visualization is used in hospitals to help people cope with pain, childbirth, chemotherapy and recovering from surgery. Scientific studies have linked guided imagery with lowered cortisol (the "stress hormone") and with a significant reduction in musculoskeletal pain.

Reference: Guided Imagery for Musculoskeletal Pain.: A Systematic Review - The Clinical Journal of Pain: September 2011





# Article 11 of 20 DISTRACTION



It's difficult for the brain to focus on two things at once.
That's why it's hard to rub your head and pat your stomach at the same time. Distraction is a short-term strategy that can be used to minimize your experience of pain. When you get dental work done, the dentist sometimes has you listen to music or watch a movie to distract you. When we can focus our minds on something other than the pain, we will experience it less intensely.

There are lots of ways to distract yourself when you are in pain in a difficult situation. For example, you can try the following:

- The alphabet game. Pick a topic and try to come up with three related words for every letter of the alphabet. Food, for example: A = apples, artichokes, anchovies B = beets, bananas, baklava, etc. This can also be helpful if your thoughts are keeping you awake at night.
- Counting games. Try counting backwards in multiples of 4: 200,196, 192,188...
- Try to remember all the words to a song (not just the chorus).

Distraction can also work for **longer periods of time**. **You've probably noticed that when you are** engaged in something you really enjoy, like watching a movie, reading, playing a challenging video game or doing a crossword, you become less aware of your pain. A study published in the *Clinical Journal of Pain* found that when people actively listened to music, in this case listening for mistakes, they experienced less pain.

Reference: Bradshaw DH et al. Effects of Music Engagement on Response to Painful Stimulation. *Clinical Journal of Pain*, 2012

Another study looked at the excruciating pain experienced by burn patients. The patients were asked to play an immersive virtual reality game while their burns were being treated. They reported an astonishing 35 to 50 per cent reduction in pain levels.

Reference: <u>Hunter G. Hoffman et al. "Virtual Reality as an Adjunctive Non-pharmacologic Analgesic for Acute Burn Pain During Medical Procedures" *Annals of Behavioral Medicine*, 2011.</u>

When you are thinking about something else, you are not focused on your pain and therefore may notice it less. But remember not to get too carried away if you're doing a physical activity. You don't want to overdo it and cause more pain for yourself later.



# MEDITATION & MINDFULNESS



Meditation is a long-term pain management strategy. It is a mind and body practice with a long history of being used to improve physical and mental health. Study after study has found positive outcomes when meditation is used for improving one's mental state, coping with illness, and enhancing general well-being. Recent research indicates that mindfulness meditation may help with pain management.

There are many types of meditation, but most have four things in common: a quiet location with as few distractions as possible; a comfortable posture (for example sitting, lying down, or relaxed walking); a focus of attention (for example on the sensation of the breath); and an open attitude (letting the distractions in your mind come and go without judging them).

There are many books, guided CDs and online videos to help you with the practice of meditation, and many communities offer meditation or mindfulness classes through their community centres, school boards or other organizations.

Mindfulness meditation is a particular type of meditation which asks us to pay attention to ongoing sensory experiences, thoughts and emotions moment by moment. It helps us to remember to stay fully aware of only what is actually happening, in the present moment both internally and externally, with no bias and no judgement.

References: Marion Kostanski et al, Mindfulness and Mindfulness-based Psychotherapy – Psychotherapy in Australia, 2006, Melbourne Mindfulness Institute

#### VIDEOS: MINDFULNESS MEDITATION FOR CHRONIC PAIN

The Work Wellness and Disability Prevention Institute has a five-part webinar series called Mindfulness Meditation for Chronic Pain. It provides an excellent overview of the research related to chronic pain and mindfulness training and introduces you to simple exercises that you can practice to positively impact your pain experience: <a href="https://www.youtube.com/watch?v=hrTeEkXrlQ4">https://www.youtube.com/watch?v=hrTeEkXrlQ4</a>

We also recommend Dr. Jon Kabat-**Zinn's 45-minute webinar Some Reflections and Guidance on the** Cultivation of Mindfulness and its Moment-by-Moment Integration in Life Unfolding: <a href="https://www.youtube.com/watch?v=dd6ktroFf80">https://www.youtube.com/watch?v=dd6ktroFf80</a>



### PHYSICAL AND OCCUPATIONAL THERAPY

Physical and occupational therapies are both short and long-term pain management strategies. They can help you:

- gain more control over your arthritis symptoms;
- manage pain;
- increase mobility;
- find exercises to reduce stiffness, increase strength, gain energy and improve fitness;
- learn ways to do activities that minimizes stress on your joints; and
- access tools and supportive or protective devices.

# Physiotherapists

Physiotherapists who specialize in arthritis are trained to do a full assessment of your physical abilities based on a detailed examination. They note the degree of pain, swelling and discomfort you have in your joints, as well as how much strength, flexibility and range-of-motion exists.

A physiotherapist can develop an individualized program designed to help you increase your strength, flexibility, range-of-motion, and general mobility and exercise tolerance through a wide variety of therapeutic treatments and interventions. These include exercise prescription, physical modalities and relaxation, in addition to advising you on other techniques for reducing pain and increasing your overall quality of life. Physiotherapists can also refer you to other health professionals and community services for further treatment options that will help you adapt to living with arthritis.

# Occupational Therapist

An occupational therapist trained in arthritis management can analyze everything you do in a day and develop a program to help you protect your joints and minimize fatigue. If necessary, they can help you redesign your home or workplace to make it easier for you to work or simply get around. They can also make or recommend a number of different splints, braces, orthopaedic shoes and other aids that can help reduce your pain and increase your mobility and functionality. Their goal is to prepare you, using assistive tools, devices and adaptive strategies, to reclaim as much of your former functionality as possible.



# MASSAGE THERAPY, ACUPUNCTURE & SPINAL MANIPULATION



Massage therapy, acupuncture and spinal manipulation are short-term strategies that can help you manage your chronic pain.

# Massage Therapy

Massage therapy is a short-term pain management strategy that focuses on your muscles and other soft tissue. It includes many techniques, and the type of massage given usually depends on your needs and physical condition.

Massage therapists use their knowledge of physiology and anatomy to combine traditional and modern massage therapy techniques with other therapies to treat their clients. A registered massage therapist (RMT) has completed a two- or three-year program at a recognized massage therapy school.

Massage therapy is regulated in four provinces (British Columbia, Ontario, New Brunswick and Newfoundland) and all RMTs are registered with the College of Massage Therapists in one of those provinces. In the other provinces, RMTs are registered with an association and must follow its standards of practice.

Research has shown the benefits of massage therapy for a number of types of arthritis. For example, in one study, children with rheumatoid arthritis experienced less stress, less stiffness and less pain when treated with massage.

Another study found that massage therapy for osteoarthritis of the knee resulted in improvements in pain, stiffness and range of motion.

#### References:

<u>Tiffany Field et al. "Juvenile Rheumatoid Arthritis: Benefits from Massage Therapy", Journal of Pediatric Psychology, 1997.</u>
Perlman Al, et al. "Massage therapy for osteoarthritis of the knee: a randomized controlled trial",

<u>Archives of Internal Medicine, 2006.</u>



## Acupuncture

Acupuncture is a short-term pain management strategy where trained **practitioners stimulate specific** points on the body — most often by inserting thin needles through the skin. It is one of the key practices used in traditional Chinese medicine.

While study results have been mixed, participants in some studies have testified that acupuncture has helped ease pain in the lower back, neck and knee. Because of these reported effects, acupuncture is a possible treatment option to consider for those with with chronic pain.

Source: National Center for Complementary and Integrative Health

Acupuncture is generally considered safe when performed by an experienced, well-trained practitioner using sterile needles. Improperly performed acupuncture can cause serious side effects.

# Spinal Manipulation

Spinal manipulation — sometimes called "spinal manipulative therapy"— is practiced by health care professionals such as chiropractors, osteopathic physicians, naturopathic physicians, physiotherapists, and some medical doctors.

It is both a short-term and longer-term pain management strategy. Practitioners perform spinal manipulation by using their hands or a device to apply a controlled force to a joint of the spine. The amount of force applied depends on the form of manipulation used. The goal of the treatment is to relieve pain and improve physical functioning.

The American College of Physicians and the American Pain Society included spinal manipulation as one of several treatment options for practitioners to consider when low-back pain does not improve with self-care.

Source: National Center for Complementary and Integrative Health



## PHYSICAL ACTIVITY AND EXERCISE



When you live with chronic pain, it can be very tempting to limit your physical activities. When we hurt, our natural instinct is to stop moving, because we fear injuring ourselves further.

But a huge body of research shows that increasing your physical activity is beneficial if you are living with chronic pain. With a regular routine you can increase your strength, energy and flexibility, as well as improve your mood, and yes, reduce your pain.

Exercise causes the release of nervous system hormones or endorphins, that interact with receptors in the brain to reduce our perception of pain, much in the same way that drugs like morphine and codeine do.

References: Melissa Conrad Stoppler, MD – Endorphins: Natural Pain and Stress Fighters, Katrina Usman, How Does Exercise Relieve Pain? *Neuroscience Research Australia*, TK.

Physical activity also stimulates the release of dopamine, norepinephrine, and serotonin, which are neurotransmitters that boost your mood and your sense of wellbeing.

Reference: R Meeusen et al. Exercise and Brain Neurotransmission. Sports Medicine, 1995

Exercise can also prevent further damage to your joints, which can mean less pain for you in the future. OA is a progressive disease that affects the whole joint and leads to a breakdown of joint cartilage and the underlying bone. **Exercise increases blood flow to cartilage, helping it to stay healthy**. Exercise can also strengthen the muscles that surround your joints, protecting and stabilizing them.

Staying active doesn't need to mean going to the gym, doing push-ups or jogging. Exercise is only one way to be physically active. Physical activity includes everything you do that moves your body. That means it includes things like gardening, walking, and doing housework. Even small actions like parking farther away from the entrance to a store can help.





Some people will find it tempting to make a resolution and jump right into a new exercise program full blast, but this can be dangerous. If you alternate between straining your muscles and having to take time off to recover, you'll end up getting a lot less movement in your joint(s).

Start slowly and pace yourself. You should increase your activity level gradually and monitor your progress. A good measure is if your arthritis pain is worse two hours after physical activity, you've probably done too much. Ease back on the intensity or duration.

During an arthritis flare up, it's important to rest more and protect the painful, swollen or inflamed joints, but that doesn't mean you should avoid all activity. Gentle stretching and range of motion exercises will help keep you limber.

# Tips for Sticking With it

Let your healthcare provider know when you're starting any physical activity program. They can help you design a program that is right for you.

- Find activities you enjoy. If you like dancing more than aerobics, dance! You'll be more likely to stick with it.
- Exercise with a friend. You can catch up, and you'll be less likely to skip it.
- Take time to warm up before exercise and cool down afterwards. You can use heat to warm stiff muscles or cold to reduce inflammation.

# Looking for even more?

Download Arthritis Society **Canada's** information <u>sheet Top 10 Exercises</u>: <a href="https://arthritis.ca/AS/media/pdf/Support%20and%20Education/EN-top-10-exercises.pdf">https://arthritis.ca/AS/media/pdf/Support%20and%20Education/EN-top-10-exercises.pdf</a>



# Article 16 of 20 PAIN MEDICATIONS



Most people living with chronic or persistent pain will need medication at some point. There are many different kinds of medication available for arthritis pain relief. Most are relatively safe, but no medication is completely free of side effects. You should speak to your doctor or pharmacist about what medications are most appropriate for your circumstances.

For more information about medications for pain, see the Arthritis **Society's** Medication Reference Guide:

https://arthritis.ca/treatment/medication/medication-reference-guide

It is an educational guide and can answer some of your questions about available medications, including details on effectiveness, side effects and warnings. The guide is designed to help you make informed decisions with your healthcare professionals. It is not a how-to guide on self-medicating.



It's a good idea to speak to both your doctor and pharmacist about your medications. Your medications are complex and you may find that there is not enough time available in your doctor's appointment for you to get all the answers you want. Pharmacists are an excellent resource, and they can usually provide you with an easy to read summary sheet of your medications.

Below are a few things to keep in mind when it comes to using medications.

- What is the name of the medication and what is it supposed to do? How and when do I take my medication?
- How long should I expect to take the medication? How will I know the medication is working?
- What are the risks or side effects? What should I watch for? What do I do if side effects occur?
- Is this medication safe to take with other medications I am taking, including over the counter ones?
- Do I need to avoid any foods, medications, vitamins, herbal supplements or activities when using this medication?



# Safety Tips

- When buying over-the-counter medications like cold remedies or treatments like rub-on pain cream, always check with your pharmacist to make sure they are safe to take with your other medications.
- If you are taking prescription medication for another long-term health problem (such as heart, liver and kidney conditions, high blood pressure, ulcers or asthma), you should discuss possible drug interactions with your doctor or your pharmacist.
- Always tell you doctor and pharmacist about any herbal supplements or vitamins you are taking.
- Avoid mixing a variety of medications in the same container. While it may be handy to carry around, it's easy to get them mixed up or for the drugs to become contaminated. A pill keeper that has sections for each day of the week can also be used to carry your various medications, one type for each compartment but be sure to label each drug and when and how much to take. Your pharmacist can also package your medications in a 'blister pack' to make it easy to know what to take when. There may be an additional charge for this
- Don't crush or break your pills to make them easier to swallow before checking with your doctor or pharmacist. Crushing or breaking the pills may impact their effectiveness, especially if it is a controlled-release medication.
- If you know you are allergic to a specific medication, inform your doctor and your pharmacist.
- If you are pregnant, thinking about trying to become pregnant, or breastfeeding, inform your doctor and pharmacist. Some medications can be passed on through the placenta or breast milk.



### MEDICATIONS TO HELP MANAGE ARTHRITIS PAIN



There are both non-prescription and prescription medications available to treat pain. Learn more about them below.

## Non-prescription medications to treat pain

Sometimes called over-the-counter (OTC) medicines, they do not require a prescription from your doctor and include acetaminophen (e.g., Tylenol®, Tylenol Arthritis®), ibuprofen (e.g., Motrin® or Advil®), naproxen (Aleve®) and acetylsalicylic acid (ASA) (e.g., Aspirin®, Entrophen®, Anacin®, Novasen®, etc.).

Ibuprofen, naproxen and ASA belong to the group of medications called non-steroidal anti-inflammatory drugs (NSAIDs). Diclofenac gel (Voltaren Emulgel®) is an NSAID, available over the counter, that can be applied topically to the skin to help relieve pain.

There are a number of other OTC creams and rubs available to help with arthritis pain. Some of these products contain salicylate as the active ingredient, whereas others contain capsaicin (naturally found in hot peppers), camphor or menthol. Some are meant to treat osteoarthritis, while others are meant to treat inflammatory arthritis. <a href="https://arthritis.ca/treatment/pain-management/medications-to-manage-arthritis-pain">https://arthritis.ca/treatment/pain-management/medications-to-manage-arthritis-pain</a>

Remember to speak with your doctor or pharmacist before starting any over-the-counter oral or topical NSAIDs. They can cause stomach problems like ulcers, and the side-effects may include indigestion, nausea, stomach cramps and heartburn. More detailed information on NSAIDs can be found on the **Arthritis Society's Anti-Inflammatory Medications** page, or by visiting Arthritis Society Canada Medications Guide. https://arthritis.ca/treatment/medication/anti-inflammatory-medications

## Prescription medications to treat pain

These are used when over-the-counter medications are not strong enough to treat the pain caused by arthritis. In this case, your treatment team member, usually your doctor, may recommend other prescription medications, such as tramadol, an opioid, or duloxetine.

https://arthritis.ca/treatment/pain-management/medications-to-manage-arthritis-pain



#### Medical Cannabis

Since 2001, medical cannabis has been a legal treatment option in Canada that many people with arthritis have chosen to use. Arthritis Society **Canada**'s booklet <u>Medical Cannabis: A Guide to Access</u> details the process to acquire medical cannabis from a licensed producer. Arthritis Society **Canada** encourages people living with arthritis to be informed about treatments and choices that affect their care. Outlined below is the process for accessing medical cannabis; begin by educating yourself on both the process and the treatment.

- 1. Do your homework: Learn about medical cannabis from credible sources. If you think medical cannabis might be a treatment option for you, make an appointment to discuss this with your physician. Prepare a list of questions and consider asking a friend or relative to accompany you to your appointment.
- 2. Talk to your physician: Let your physician know your thoughts on medical cannabis as a treatment option, ask questions and make an informed decision together.
- 3. Select a licensed seller: Reach out and ask licensed sellers questions about how they operate, and the services and products they provide. Make sure you are comfortable with the licensed seller you select.
- 4. Complete the paperwork: You will need a completed medical document (similar to a prescription) from your physician. You will also be required to register with a selected licensed seller or with Health Canada if you wish to produce your own cannabis for medical purposes or designate someone to produce it for you.
- 5. Submit the paperwork: Once the licensed seller has the required paperwork, they will be able to process your order.

If you are already using medical cannabis for your arthritis, make sure your physician is aware (as they should be for all other medications you are taking) of what symptoms you are using it to address, how you are taking it, how frequently and in what doses.



## Important to Note:

- While medical cannabis is legal for use in Canada with a physician's order, medical cannabis is not a Health Canada- approved treatment. To date, there is limited clinical evidence on the relative benefits and risks of medical cannabis on the treatment of arthritis.
- Persons under age 25 should not use medical cannabis.
- This information is intended for educational purposes only. It is not intended to substitute the advice of a physician. Consult your physician or other relevant health professional for specific information on personal health matters to ensure that your individual circumstances are considered.
- Self-medication with recreational cannabis is NOT a safe substitute for receiving medical cannabis from a licensed producer under the direction of your physician.

For more information about medical cannabis, visit the Arthritis Society's Medical Cannabis webpage at arthritis.ca/treatment/medication/medical-cannabis



#### Article 18 of 20

### RELATIONSHIPS MATTER



The Family and Friends section contains useful information (here and in Three Kinds of Support) that you can share with your loved ones to let them know the importance of support. Send them a link to the section, make notes to pass along, or print out a PDF of material to share.

People living with chronic pain who feel support in their lives have

- lower pain intensity;
- lower pain-related disability;
- less depression and anxiety;
- better ways of dealing with pain; and
- overall better quality of life.

To put it simply, people who have the support of family and friends are able to cope better with pain.

Here are some suggestions you may want to share with your loved ones about ways they can show their support. They can:

## Be a positive role model

Plan both social and physical activities **together**. It is difficult to change habits and patterns of behaviour. The support of family and friends goes a long way in the process of change.

#### Remember to be flexible

Often people living with pain are reluctant to schedule activities because they are not sure how they will feel. Understanding and flexibility is needed when scheduling activities with people who live with chronic pain.

## Plan some fun

Pain can sometimes make it feel like life is on hold. Take it day by day, but plan some fun activities on a regular basis. Consider that chronic pain might change the length of an adventure — for example your friend or family member might prefer an activity that takes a couple of hours rather than a full day.



# Article 19 of 20 THREE KINDS OF SUPPORT



There are three types of support you can offer a family member or friend who is experiencing chronic or persistent pain:

# **Emotional Support**

People living with pain typically consider emotional support to be the most helpful. Here are a few ways to make your loved one feel cared for and accepted.

- Listen without judgement. Sometimes people just need a release valve for daily stresses.
- Provide encouragement. Notice and reinforce the positive changes that have happened because of your loved one's efforts. For example, if your friend has been taking aqua-fit classes you may be able to point out the improvements you've witnessed.

#### What to avoid?

- Pity. Few people want to be pitied, and pity from others can reinforce negative emotions and perceptions. Empathy is much better than pity.
- Guilt. Sometimes a loved one will need to cancel plans at the last minute due to pain. It's important to be understanding and not make them feel worse about the situation. Offer to change the plan to something they can manage (i.e. stay in and watch a movie together instead of going on a walk), or reschedule for another day.

#### Take Care of Yourself Too

Any of the things you recommend for your loved one are things you should be doing for yourself. Make sure you are eating right, getting physical activity, spending time with family and friends, and taking opportunities to get out and have some fun.



# **Physical Support**

Ask your loved one if there are things you can take on to make their lives easier. This might include:

- Helping out with chores or errands.
- Helping with transportation. It can be a challenge to get around when you live with chronic pain.
- Assisting in preparation for medical appointments. This might mean helping them prepare by coming up with a list of questions. It could also mean attending an appointment with them and taking notes.
- Doctors can give a lot of information in a short amount of time. A second set of ears can be very useful.

#### What to avoid?

Taking over all tasks and chores. While you're trying to be supportive, you may actually be reducing your loved one's sense of independence and confidence in their capabilities. It is better to identify what the person you care about can do and divide tasks and chores accordingly. Remember, arthritis and persistent pain are episodic, so what the person can do may change from time to time.

# Being Informed

The more you know about what your loved one is going through, the more insight you'll have. The Arthritis Society's online learning resources are a great place to start.

Other things you can do:

- Provide reminders of what has worked for them in the past
- Educate yourself about relevant issues
- Join a support group

#### What to avoid?

Unsolicited advice, or reminders that may be perceived as nagging. Always let your loved one lead.



# STAY IN TOUCH

Thank you for taking a few minutes to complete our survey at surveymonkey.com/courseseval. Your feedback will guide the ongoing improvement of our programs to help you and other Canadians better manage your arthritis.

<u>Sign up</u> <u>to the flourish e-newsletter</u> to receive health and wellness advice, self management tips, inspirational stories and much more to help you move through life with arthritis.



