

# Inflammatory Arthritis Education Series

## Managing Pain

This program has been reviewed and endorsed by



# The Program Faculty

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# Objectives

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By the end of the session, you will:

- Understand how we feel pain
- Know some of the causes of arthritis pain
- Become familiar with the pain cycle and the mind-body connection
- Develop skills to manage your pain

# What is pain?

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- An alarm system that protects the body
- Something we physically feel
- Something we have feelings about
- Our experience of pain is unique and personal

# What is pain?

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The International Association for the Study of Pain defines pain as:

“An unpleasant sensory and emotional experience arising from actual or potential tissue damage or described in terms of such damage.”

# Types of pain

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- Acute Pain:
  - Immediate warning sign of injury or illness
  - Lasts a short period of time
  - Responds well to treatment
  
- Chronic Pain
  - Lasts a long time
  - May occur frequently or constantly with a chronic illness such as arthritis
  - May be persistent, intermittent, or variable
  - Less responsive to treatment

# The pain pathway

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- Nerve endings send electrical pain messages up the spinal cord to the brain
- The message travels to the pain centre (thalamus) in the brain where pain is interpreted for physical and emotional meaning telling the body how to react
- Our thoughts and feelings about pain cause a release of chemicals that can increase or decrease the pain signal
- The brain's memory of past pain experiences may increase the current level of pain being experienced



# What factors contribute to arthritis pain?

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- Inflammation
  - Swelling of the joints and surrounding tissues
- Damage to tissues in and around the joint
  - From inflammatory process, injury, or pressure
- Physical activity (not enough or too much)
- Muscle tension
  - Due to stress, lack of movement, or posture

# What factors contribute to arthritis pain?

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- Fatigue
  - From the disease process and disrupted sleep
- Anxiety and/or depression
- Being too focused on pain symptoms
- Attitude and belief system
  - If you have a positive outlook on life and your ability to heal, you will generally experience less pain
- Social environment and support
  - People who have good support from family, friends, & colleagues will be less stressed/overwhelmed and generally experience less pain



# Pain: other considerations

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An increase in pain does not necessarily mean your arthritis is getting worse.

## Questions to ask when you're in pain:

- Have I been taking my medications as prescribed?
- Have I been more active than usual?
- Do I have any stressors or other illnesses (e.g., the flu) that may be increasing my pain?

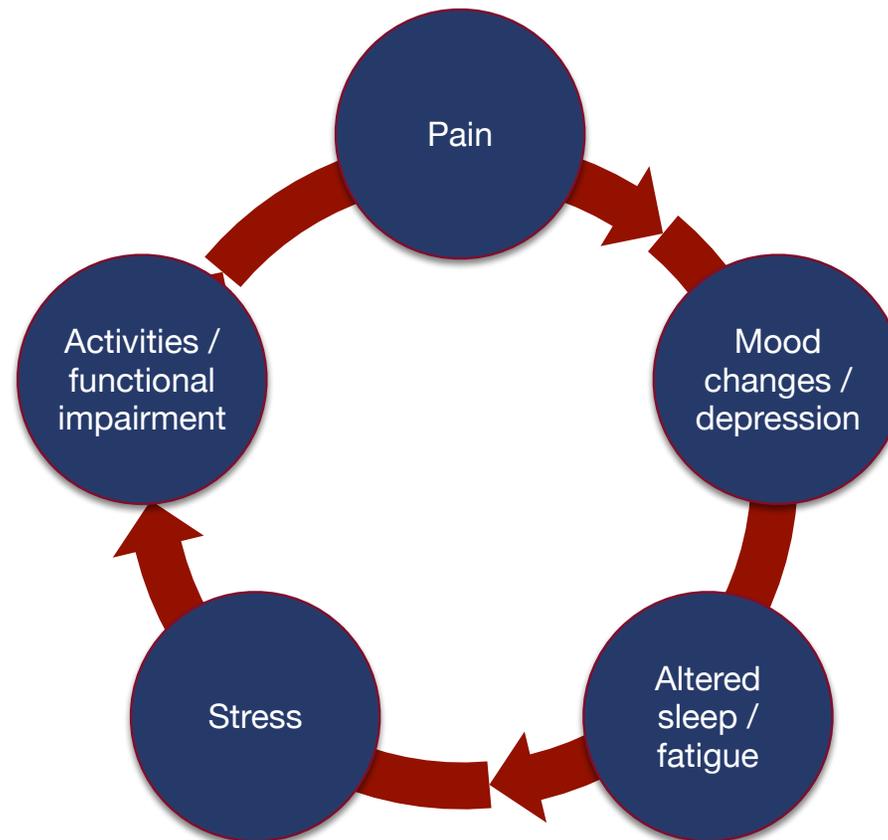
# The role of stress in chronic pain

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- Many challenges in life can cause us to experience stress. The body responds to stress by putting us in a “fight or flight” state, which:
  - Increases heart rate, blood pressure and breathing
  - Contracts major muscle groups, including the stomach
  - Increases the release of glucose (sugar) in the body
  - Lowers our immune system's ability to fight bacteria and other invaders
  - Decreases the breakdown and absorption of food and intestinal movement
- Continuous stress can cause harm to the body by affecting its ability to heal

# The pain cycle

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# The mind-body connection

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- Pain can have a profound effect on our overall well-being:
  - Physical
  - Mental
  - Emotional
  - Spiritual
  - Social
- Our emotions and thoughts greatly impact our pain experience

# Managing pain

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- Our experience of pain is unique and personal
  - It is difficult to fully describe pain to others
- A combination of different strategies may be required to control persistent arthritis pain.
  - Medications, exercise, other therapies and coping techniques

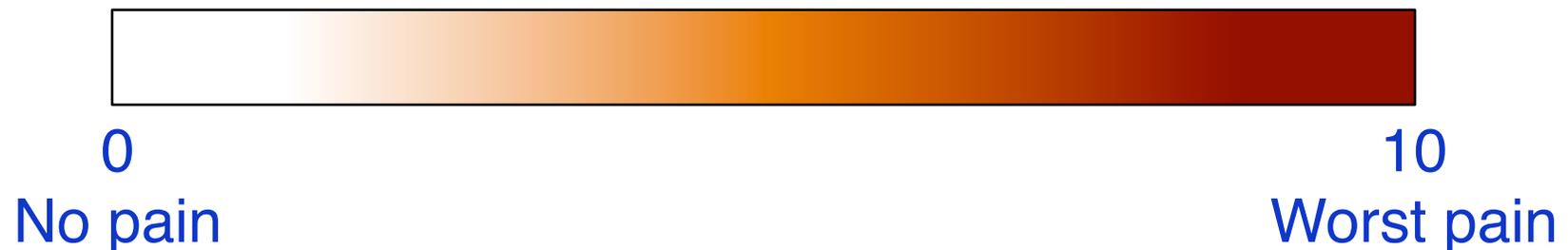
# Managing pain

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## The pain scale

- Monitor your level of pain before and after treatments or any other strategies

*On average, what has been the severity of my pain over the past week?*



# Managing pain

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- Physical strategies
- Mind-body strategies
- Medications

# Physical strategies

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- Exercise / stretching / joint mobilization
- Cold (ice)
- Heat
- TENS (transcutaneous electrical nerve stimulation)
- Joint protection (splints, orthotics, aids)
- Balancing rest and activities

# Physical strategies

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## Exercise

- Improves overall health and fitness and may reduce arthritis symptoms
- Is important for maintaining the health of cartilage and strengthening bone
- Feeds your joints and makes bones strong
- Referral to a physiotherapist may be of help:
  - To assess your aerobic condition and muscle strength
  - To get a personal exercise program and treatment
- Remember that exercise and activity are not the same

# Physical strategies

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## Types of Exercise

- Aerobic
  - Increase circulation and endorphins
- Strengthening
  - Improve joint stability
- Core stability
  - Improve posture
- Stretching
  - Reduce stiffness and increase flexibility
- Range of motion
  - Improve movement of joint

# Physical strategies

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## Cold

- Decreases pain, swelling, inflammation and muscle spasm
- Use for short periods of time (10 to 20 minutes every 1 to 2 hours):
  - ice soaked towels
  - ice bath
  - bag of frozen peas
  - frozen gel packs

# Physical strategies

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## Heat

- Increases circulation to the area
- Decreases stimulation of nerves and muscle spasm
- Use:
  - hot water bottle
  - hot packs/magic bag
  - wax bath
  - warm bath
  - whirlpool
  - sauna

# Physical strategies

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## Using Cold and Heat Therapy

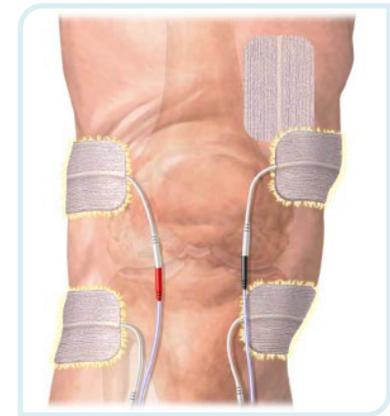
- Apply for 15 to 20 minutes
- Use a damp towel between source and skin to protect against burning or freezing
- Check skin frequently for signs of overcooling (blanched skin) or burning (redness)

# Physical strategies

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## TENS Therapy

- Transcutaneous electrical nerve stimulation
- Electrical home device that has different programs to help reduce muscle and tissue pain



# Physical strategies

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## Protect Your Joints

- Find alternate ways of using your joints to:
  - Decrease pain
  - Slow down the progression of damage and deformity
  - Make day-to-day tasks easier
  - Do everyday tasks in ways that reduce strain on painful joints
  - Use good body posture for sitting, standing and lifting
- Wear splints and braces as needed
- Use adaptive equipment for better gripping and reaching

# Physical strategies

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## Protect Your Joints

- See an occupational therapist for strategies and devices to aid in daily activities at home/work
- Devices include:
  - Wrist, hand and finger splints
  - Foot orthotics and proper shoes
  - Proper chairs and workstation tools
  - Proper bed, pillows and sleep aids

# Physical strategies

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## Balance Rest and Activity

- Plan daily activities ahead of time
- Pace activities throughout the day with periods of rest
- Prioritize what activities need to be done
- Try to maintain proper posture and keep objects within reach

# Physical strategies

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## Get Enough Sleep

- Restores energy to make managing pain easier
- Rests joints to reduce pain and swelling
- Strategies that can help you sleep well:
  - Sleep in a cool, dark, quiet room
  - Use bedroom only for sleeping and sex
  - Go to bed early and at a similar time each night
  - Avoid liquids, stimulants, and heavy meals close to bed time.
  - Take pain medication as needed to aid sleep
  - Talk to you doctor about adjusting medications (such as prednisone) that may be keeping you awake at night

# Mind-body strategies

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## Mind-body strategies:

- Are proactive
- Alter our perception of pain
- Stimulate the release of endorphins
- Can involve positive thinking
- Help change behaviors
- Help manage emotions
- Can include relaxation/meditation

# Mind-body strategies

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## Be active in your healing

- Educate yourself about your disease and your treatment options
- Be an active partner in your healthcare decisions
- Problem solve
  - Look at your options and take action
- Get the support of others
  - Ask for help when needed

# Mind-body strategies

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## Stay positive

- Keep a positive outlook
  - Be optimistic
  - Surround yourself with positive people
  - Have a sense of humour
  - Enjoy activities with family/friends
  - Take care of yourself (*i.e.*, eat healthy, exercise regularly and follow your treatment plan)
- Focus on the desired outcome of how you want to think, feel, or act

# Mind-body strategies

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## Use Positive Self-talk

- Make a list of your negative self-talk statements and change each negative statement to a positive one
  - For example, change “I’m tired and don’t feel like attending my support group tonight” to “If I go to the meeting, I will learn some good tips like the ones I learned last month. I can always leave the meeting a little early, if needed.”
- Practice - positive self-talk may seem awkward at first, but it could make a big difference

# Mind-body strategies

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## Changing behaviours

- Analyze your negative habits and take steps to change
- Replace bad habits with good ones and reward your own behaviour changes

# Mind-body strategies

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## Managing Emotions

- Recognize and learn to manage emotions, such as frustration, anxiety, anger and sadness/depression
  - Talk to someone, such as family or friends
  - Join a support group
  - Seek professional counseling

# Mind-body strategies

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## Make time for leisure activities

- Music
- Reading
- Funny movies
- Gardening
- Being around others

# Mind-body strategies

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## Relaxation Techniques

- Practice breathing exercises
  - Learn regular deep breathing or belly breathing
- Practice relaxation exercises
  - Use a recording, video, or attend a class to learn these techniques
  - Close your eyes and focus on your breathing while listening to soothing music and allow each body part from your feet to your head to relax
  - Use creative visualizations or guided imagery to enhance your session

# Medications

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- Medications can decrease inflammation in the body
- Work with your doctor, nurse and other healthcare team members to find the right medications and therapies to help control your inflammatory arthritis
- See your rheumatologist as recommended to help get your inflammation under control
- Discuss with your rheumatologist what to do when your arthritis flares

# Medications

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## Questions to ask prior to taking a medication:

- Why am I taking it?
- How do I take it?
- How long before I see the benefit?
- How will I know it's working / not working?
- What are the possible side effects?
- What do I do if a side effect occurs?
- How long will I be on this medication?

# Medications

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## Medications for Pain - Analgesics

- Acetaminophen is the most widely used
- NSAIDs (non-steroidal anti-inflammatory drugs) are used for moderate to severe pain of inflammatory arthritis
- For severe pain, narcotics may be prescribed
  - Medications containing an opioid (e.g. codeine)
  - Combined products with acetaminophen and opioids (e.g. codeine or tramadol)
  - Long-action opioid analgesics (e.g., pills, skin patches)

# Medications

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## Medications for Pain - Acetaminophen

- Examples: Tylenol, Panadol, Exdol
- Reduces pain and fever, but not inflammation
- Can be safely combined with prescription NSAIDs
- Tylenol Regular strength (325 mg)
  - 1 to 3 tablets every 4 to 6 hours as needed
- Tylenol Extra strength (500 mg)
  - 1 to 2 tablets every 4 to 6 hours as needed
- Tylenol Arthritis Pain (extended release; 650 mg)
  - 2 tablets every 8 hours as needed

# Medications

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## Medications for Pain – Acetaminophen

- Maximum dose:

- No more than 1,000 mg\* should be taken at one time with a maximum of 4,000 mg in a day
- Overdosing with acetaminophen can lead to liver damage

- Lower dosages are recommended for:

- Elderly people
- People who take blood thinners
- People who drink more than 2 alcoholic drinks a day

\*Exception: Tylenol Arthritis Pain (AP) extended release dosage is 650 mg x 2 capsules

# Medications

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## Medications for Pain – Acetaminophen

- Acetaminophen is also:
  - Found in many cold remedies
  - Available in combination products also containing codeine, muscle relaxants or both
- Ensure that your total daily dose, from all sources, does not exceed 4 grams (consult your pharmacist or doctor)

# Medications

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## Nonsteroidal anti-inflammatory drugs (NSAIDs)

- Control symptoms of arthritis
- Reduce pain, stiffness and swelling
- Reduce inflammation if taken regularly
- Do not prevent disease progression
- Should be taken with food to reduce risk of stomach problems

# Medications

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## NSAIDS

- Take only one type of NSAID at a time (exception: small doses of aspirin prescribed by your doctor for blood thinning)
- If you are taking an NSAID, you may be prescribed a 'stomach protector' to reduce the risk of stomach ulcers
- Choice of NSAID based on:
  - Simplicity
  - Effectiveness
  - Tolerability
  - Cost
- Report any side effects to your doctor
- Have your blood pressure monitored once per week for 4 to 6 weeks.
  - Monitor every 4 weeks if your blood pressure is stable

# Medications

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## Non-prescription NSAIDs

- ASA (e.g. Aspirin, Entrophen, Anacin)
  - 325 mg to 650 mg tablets taken 4 to 6 times per day
- Ibuprofen (e.g. Advil, Motrin)
  - Available over-the-counter at 200 mg, 300 mg or 400 mg, or by prescription at 600 mg
  - 400 mg to 600 mg 3 to 4 times per day
  - Maximum of 2,400 mg per day
- Naproxen (e.g. Aleve, Naprosyn)
  - 220 mg every 8 hrs, 2 to 3 times daily

# Medications

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## Prescription NSAIDs

- Some examples include:
  - Flurbiprofen (Froben)
  - Naproxen (Naprosyn)
  - Diclofenac (Voltaren)
  - Diclofenac and cytotec (Arthrotec)
  - Meloxicam (Mobicox)
- When prescribing a traditional NSAID, doctors will often prescribe a medication to help protect the stomach (such as Losec, Pariet or Nexium), especially for those over 65 years of age

# Medications

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## NSAIDs: Cox-2 Inhibitors (Coxibs)

- Blocks Cox-2, an enzyme that contributes to pain and inflammation
- Does not interfere with stomach-protective Cox-1 enzymes
- Celecoxib (Celebrex)
  - Dose: 100 mg to 200 mg twice a day
  - Taking aspirin at the same time will increase the risk of stomach ulcer, even while using celecoxib

# Medications

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## NSAIDs: Possible Side Effects

- Nausea/heartburn
- Increased blood pressure (especially with coxibs)
- Traditional NSAIDs and coxibs may be associated with an increased risk of cardiovascular events
- Stomach pain/cramps, constipation
- May affect kidney and liver function
- Gastrointestinal bleeding (stomach or bowels)
- Ringing in ears (rare)

# Medications

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## People Who Should Not Take NSAIDs or Coxibs

- Anyone who:
  - Is allergic to NSAIDs or aspirin
  - Has asthma which is made worse by taking aspirin
  - Has had a recent ulcer in the stomach or intestine
  - Has liver or kidney disease
  - Has congestive heart failure
  - Has had a recent heart attack, stroke or serious chest pain related to heart disease
- Always check with your family physician or rheumatologist prior to withdrawal of any prescribed medication

# Medications

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## People Who Should be Careful Taking NSAIDs or Coxibs

- Anyone who:
  - Is over 65 years of age
  - Has had a previous stomach ulcer
  - Is taking blood thinners, such as warfarin (Coumadin) or heparin
  - Is at very high risk for a heart attack or stroke

# Medications

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## Narcotic Medications for Pain

- Narcotics are a type of pain medication sometimes ordered by your doctor when NSAIDs are not sufficient to relieve your pain
- Some examples include:
  - Codeine (Tylenol 1, 2, 3, and Emtec)
  - Morphine (MS-Contin)
  - Hydromorphone (Dilaudid)
  - Merperidine (Demerol)
  - Fentanyl (Duragesic patches)
  - Tramadol or Tramacet (Tramadol 37.5 mg + Acetaminophen 325 mg)

# Medications

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## Codeine Preparations

- Tylenol #1
  - Does not require a prescription
  - Acetaminophen 300 mg, caffeine 15 mg and codeine 8 mg
- Tylenol #2
  - Requires a prescription
  - Acetaminophen 300 mg, caffeine 15 mg and codeine 15 mg
- Tylenol #3
  - Requires a prescription
  - Acetaminophen 300 mg, caffeine 15 mg and codeine 30 mg
- Emtec
  - Requires a prescription
  - Acetaminophen 300 mg and codeine 30 mg
- 1 to 2 tablets every 4 to 6 hours as prescribed by your doctor to a maximum of 12 tablets in 24 hours

# Medications

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## Codeine Preparations

- Tylenol with codeine may be taken with Tylenol Regular or Tylenol Extra Strength
- Codeine affects the central nervous system, reducing pain sensitivity
- Possible side effects:
  - Constipation
  - Nausea
  - Dizziness
  - Drowsiness

# Medications

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## Creams and Gels

- Are counter-irritants:
  - Superficial hot or cold sensation to distract from pain by altering nerve signals
  - Contain one or more ingredients, such as menthol, camphor or eucalyptus oils
- Can provide temporary pain relief
- Works on the area of application
- May need to be applied several times per day
- Examples: ArthriCare, Deep Cold, Menthacin, Eucalyptamint

# Medications

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## Creams and Gels

- Capsaicin (cayenne peppers):
  - Temporarily blocks transmission of substance P (chemical sending pain messages to the brain) (e.g. Zostrix, Capzasin-P)
- Salicylates (salicylic acid):
  - Stimulates blood flow and blocks body chemicals called prostaglandins, which contribute to pain and inflammation; (e.g. Bengay, Flexall, Myoflex)
- Diclofenac:
  - Pennsaid (diclofenac sodium 1.5% & 45% DMSO) and requires a prescription
  - Voltaren Emugel (diclofenac diethylamine 1.16%) is available over the counter

# Key Messages

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- You can reduce or manage your pain by treating your disease and suppressing inflammation
- Work with a healthcare team to get control of your inflammatory arthritis and pain symptoms
- Take control of your pain before it controls you
- Use various strategies to break the pain cycle
- Ask for help and stay connected with others
- Check out available community resources, such as education classes, support groups etc.

# Resources

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- Arthritis Consumer Experts [www.jointhehealth.org](http://www.jointhehealth.org)
- The Arthritis Foundation [www.arthritis.org](http://www.arthritis.org)
- The Arthritis Society [www.arthritis.ca](http://www.arthritis.ca)
- Canadian Arthritis Patient Alliance [www.arthritispatient.ca](http://www.arthritispatient.ca)
- Canadian Psoriasis Network [www.cpn-rcp.com](http://www.cpn-rcp.com)
- Canadian Spondylitis Association [www.spondylitis.ca](http://www.spondylitis.ca)
- Rheuminfo [www.rheuminfo.com](http://www.rheuminfo.com)
- Canadian Medical Association [www.cma.ca](http://www.cma.ca)
- Canadian Nurses Association [www.cna-nurses.ca/cna](http://www.cna-nurses.ca/cna)
- Canadian Assoc. of Occupational Therapists [www.caot.ca](http://www.caot.ca)
- Canadian Physiotherapy Association [www.thesehands.ca](http://www.thesehands.ca)
- Dietitians of Canada [www.dietitians.ca](http://www.dietitians.ca)

# Resources

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- The Canadian Pain Coalition [www.thecanadianpaincoalition.ca](http://www.thecanadianpaincoalition.ca)
- The Canadian Pain Society [www.painexplained.ca](http://www.painexplained.ca)
- International Association for the Study of Pain [www.iasp-pain.org](http://www.iasp-pain.org)
- Neil Pearson's Patient Education [www.lifeisnow.ca](http://www.lifeisnow.ca)
- The Calgary Pain Centre – online lecture series [www.calgaryhealthregion.ca](http://www.calgaryhealthregion.ca)
- Pain toolkit [www.paintoolkit.org](http://www.paintoolkit.org)
- Sleep Foundation [www.sleepfoundation.org](http://www.sleepfoundation.org)

# Resources

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- Butler DS, Moseley GL. *Explain Pain*. Noigroup Publications, Adelaide, Australia, 2003.
- Lorig K, Fries J. *The Arthritis Helpbook: A Tested Self-management Program for Coping with Arthritis and Fibromyalgia*. Fifth edition. Perseus Books, Cambridge, Massachusetts, 2000.