Family Health Team

Managing Chronic Pain Beyond Medications

Yali Gao, Clinical Pharmacist Alex Nguyen, Dietitian Intern Lindsay Bickerstaffe, Kinesiologist Rosie Vujcic, Social Worker

Wed May 3, 2023

Family Health Team

Disclosure

This session is meant to be for educational purpose only. Please refrain from disclosing any personal medical information and asking for medical advice.

Family Health Team

Chronic Pain

What is chronic pain?

Pain that has been there for longer than 3 months



Who does chronic pain affect?

- ▶ It is common! Approximately 30% of adults experience chronic pain
- 18% of Canadian adults suffer from moderate to severe chronic pain daily or most days of the week
- ▶ It is THE MOST common reason patients see their family doctor
- Older adults are at higher risk of untreated/inadequately treated pain

Family Health Team

Chronic Pain

Why do we care?

- Chronic pain is unlikely to get 100% better. A good result is 30% reduction in pain and improvement in function
- ▶ It is associated with the worst quality of life when compared to other chronic diseases
- Patients with chronic pain are 2-7x more likely to also be experiencing mood and anxiety issues
- Chronic pain may also contribute to: reduced mobility, reduced concentration, sleep disturbances, social isolation, increased reliance on caregivers



Family Health Team

Medications



Family Health Team

Limitations of Medications

STRENGTH TO LAST 12 HOURS 320 CAPILITS
(APPLIES APPLIES APPLIE

| MEDICATIONS | LIMITATIONS |
|--|---|
| Acetaminophen (Tylenol) | Liver concerns at high dosesCaution when combining with alcohol |
| Anti-inflammatory (ibuprofen, celexocib, naproxen) | Kidney concerns Increased risk of heart attack and stroke |
| ALL DAY STRONGS AND THE STRONGS AND TH | Increased risk of bleeding (drug interaction with other blood thinning agents), stomach ulcers Fluid retention |

Family Health Team

Limitations of Medications

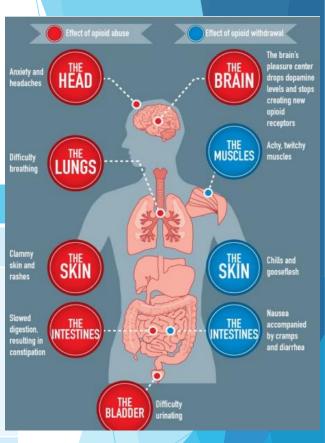
| MEDICATIONS | LIMITATIONS |
|--|---|
| Muscle relaxant (Robax, Flexeril, baclofen) | Sedation, risk of fallsShort-term use |
| Topicals (A535, voltaren, Bengay, Tiger Balm, lidocaine) | Localized pain controlTemporary reliefSkin sensitivity |
| Antidepressants (duloxetine, amitriptyline) | Drowsiness, confusion Sweating, nausea, dry mouth, constipation Pre-existing glaucoma Heart arrhythmia |



Family Health Team

Limitations of Medications

| MEDICATIONS | LIMITATIONS |
|------------------------------|---|
| Anticonvulsants (pregabalin) | Drowsiness, dizziness |
| Steroids (prednisone) | OsteoporosisWeight gainDiabetesInfectionsStomach ulcers |
| Opioids | Constipation, nausea, vomiting Sedation, confusion, risk of falls Addiction, dependence Overdose, difficulty breathing Worsening pain |



Family Health Team

Limitations of Medications

| MEDICATIONS | LIMITATIONS |
|--|--|
| Injections (cortisone in back and knee, Synvisc in knee) | Short-term relief Painful Risk of infection, bleeding, nerve injury Steroid: same as oral with repeated use Synvisc: cost \$500+ |
| Cannabis/marijuana | Feeling "high", anxious, agitatedSedation, dizzinessMemory and driving impairment |



Family Health Team

Natural Products

Glucosamine Sulfate

- Can be helpful in some types of joint pain (knee osteoarthritis)
- Can take up to 4 weeks to take effect
- Generally well tolerated
- Dosage: 1500mg daily
- Side effects: bloating, constipation, diarrhea, heartburn, nausea



Family Health Team

Natural Products

Turmeric/Curcumin

- Anti-inflammatory action, possibly effective for some types of pain
- Dosage: 1.5 grams (Turmeric extract) daily for up to 3 months
- Side effects: Constipation, heartburn, diarrhea, bloating, reflux, nausea
- Caution: May increase bleeding risk when used along side some OTCs and medications

Collagen

- One of the materials that makes up cartilage, bone, and skin
- Very well tolerated and may be helpful in some types of pain
- Dosage: 2.5 to 10 grams daily for up to 6 months
- Rare side effects: nausea, heartburn, diarrhea, flatulence

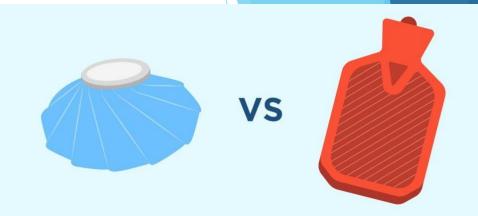


Family Health Team

Complementary Therapies

- Heat and cold
- **TENS**
- Acupuncture
- Massage







Family Health Team

Nutrition



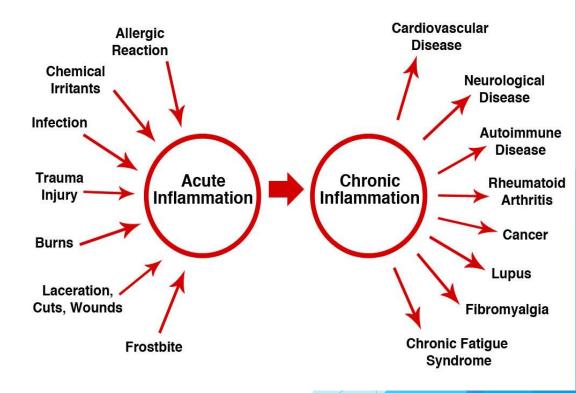
Family Health Team

Inflammation

- Inflammation occurs when the body releases chemicals that trigger an immune response to fight off infection or heal damaged tissue."

 National Cancer Institute
- Chronic Inflammation: prolonged inflammatory responses
 - Causing: pain, join stiffness, body discomfort

Acute Vs. Chronic Inflammation



Family Health Team

Anti-Inflammatory Diet

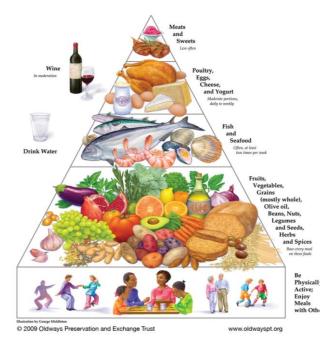
1. Plant-based foods

3 servings of fruits/day

Have more of

- 4 servings of vegetables/day
- 3 servings of legumes (beans lentils, pea, tofu, edamame)/week
- 3 servings of nuts or seeds/week
- 2. Fish or seafood
 - 3 servings/week
- 3. Use olive or avocado oil to cook or in salad dressing

Mediterranean Diet Pyramid



Source: Oldways

Have less of

- 1. Saturated fats
 - Deli meats, takeout, store bought baked goods, chips
- 2. Red meats and deli
 - 2 servings or less of beef, pork, lamb
 - Limit hamburger, sausage, and processed meat
- Sugar-sweetened beverages
 - Limit pop, fruit-flavored drinks, iced cap
- 4. High glycemic index foods
 - Store bough baked goods, white flour, bagels and muffins, candies

Family Health Team

Phytonutrients

- Plant compounds with antioxidant and anti-inflammatory properties
- Polyphenols and antioxidant vitamins (C, E, beta-carotene) help the body fight against oxidative stress and inflammation
- Polyphenols rich foods:
 - cocoa, coffee, tea, spices, beans, nuts, soy, fruits and vegetables
- Antioxidant rich foods:
 - Vitamin C, E, beta-carotene: berries, leafy greens, yellow/orange/red vegetables
 - Minerals (zinc, selenium): beans, lentils, chickpea, quinoa, seeds
- Preserve phytonutrients in cooking: steam, roast, microwave, quick stir fry with olive oil







Family Health Team

Omega-3

- ► The "Healthy" fats EPA, DHA, ALA
- Benefits:
 - ► Lower triglycerides, reduce risk of heart disease
 - Reduce inflammation
 - Might relieve symptoms of rheumatoid arthritis
- Food sources:
 - ► Fatty fish: salmon, mackerel, sardines, halibut, tuna
 - Plant-based sources: avocado, seaweed, flaxseeds, chia seeds, pumpkin seeds, walnuts, hemp hearts, edamame, kidney beans
 - Oils: avocado oil, olive oil, canola oil
 - Other sources: eggs, cow's milk



Family Health Team

More Tips

- 1. Eat more fibre (fruits and vegetables, whole grain, legumes)
 - Prevent constipation caused by some pain medications
 - Prebiotics for beneficial gut bacteria that help reduce inflammation in the body
- 2. Drink lots of fluid total 8-12 cups of fluid/day
 - Make water your drink of choice!
- 3. Weight management to reduce pressure on joints, ease pain and reduce inflammation
- 4. Have smaller meals throughout the day: can help improve appetite, maintain fullness and energy level better
- 5. Have healthy snacks ready
 - Boiled eggs with veggie sticks
 - Yogurt with fruits and bran buds
 - Nuts and fruits
 - Whole wheat crackers with hummus





Family Health Team

Quick Meal Ideas

- Stock up on frozen fruits and vegetables
- Making batch of soup, chili, casserole to portion and freeze
- Try meal delivery service e.g. Heart to Home Meals



Creamy tomato salmon skillet



Chickpea and quinoa bowl with roasted pepper sauce



Tuna and white bean lettuce wraps

Family Health Team

Exercise



Family Health Team

Types of Exercise

| Types of Exercise | Evidence | |
|--|--|--|
| Aerobic (walking, cycling) | Osteoarthritis, rheumatoid arthritis, fibromyalgia, low back pain | |
| Resistance training (bands, weights) | ining (bands, weights) Osteoarthritis, rheumatoid arthritis, lower back pain | |
| Core stability, motor control | Lower back pain | |
| Stretching, flexibility, range of motion | Osteoarthritis, fibromyalgia, low back pain, activities of daily living | |
| Hydrotherapy (Aquafit) | Rheumatoid arthritis, hip and knee osteoarthritis | |
| Mindful movements (yoga, tai chi, qi gong) | Fibromyalgia, low back pain | |

Cardiovascular



Strength



Flexibility



Balance



Family Health Team

Overcoming Obstacles to Exercise

"I'm not motivated"

- Meaningful and rewarding activity
- Tempo-pace synchronized music
- Buddy system



Family Health Team

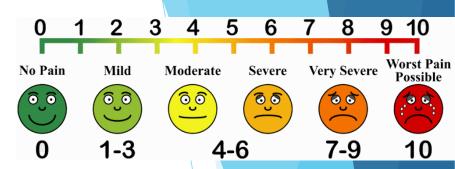
Overcoming Obstacles to Exercise

"I haven't exercised in so long that my body is weak"

- Balance rest and activity; rest before exhaustion
- Simplify/modify activities to accommodate current abilities
- Low intensity training
- Graded activity



Family Health Team



Overcoming Obstacles to Exercise

"I'm afraid of reinjury or that it will make the pain worse"

- Expect and accept minor and temporary increases in pain
- Hurt vs harm (short period of discomfort vs long-term gain of improved function and reduced pain)
- Graded activity
 - No need to push yourself into more pain
 - If your pain level increases by more than 2 points from baseline, you should stop and modify that exercise
- Exercising non-painful muscles can produce a benefit with less pain

Family Health Team

| GO | There is no increase in initial pain &/or symptoms. You may experience mild discomfort with physical activity - it is okay to work through this. |
|---------|--|
| | It is not unusual to have mild to moderate muscle stiffness when initially starting a physical activity program. A short walk and some mild stretching can help alleviate these symptoms. |
| CAUTION | Pain/symptoms increase, but subside immediately when activity is stopped. Ask yourself – is this pain that I normally experience OR is this new pain that might be putting me at risk? Take a rest break and try the activity again. Do as many repetitions &/or minutes as you can before the pain increases and take another rest break. If increased pain persists longer than 2 hours then stop the activity and talk to your health care professional. |
| STOP | If you experience new or unusual pain/symptoms. |
| | If you experience numbness or tingling. If you normally have numbness and tingling, discontinue the activity if you experience an increase in these symptoms. |
| | If you experience sharp, shooting pain. |

Family Health Team

Where to Start?

Aerobic exercise: 4-5 times per week

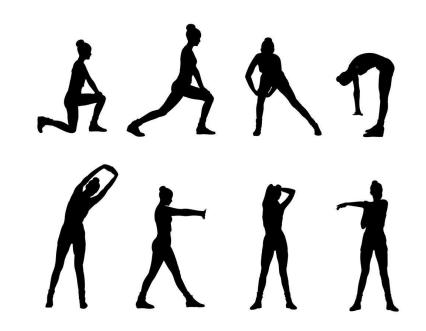
Brisk walking, swimming, pushing a lawn mower

Resistance exercise: 2-3 times per week - non-consecutive days for rest and recovery

Climbing stairs, digging in the garden, lifting weights, resistance band exercises

Flexibility exercise: Daily

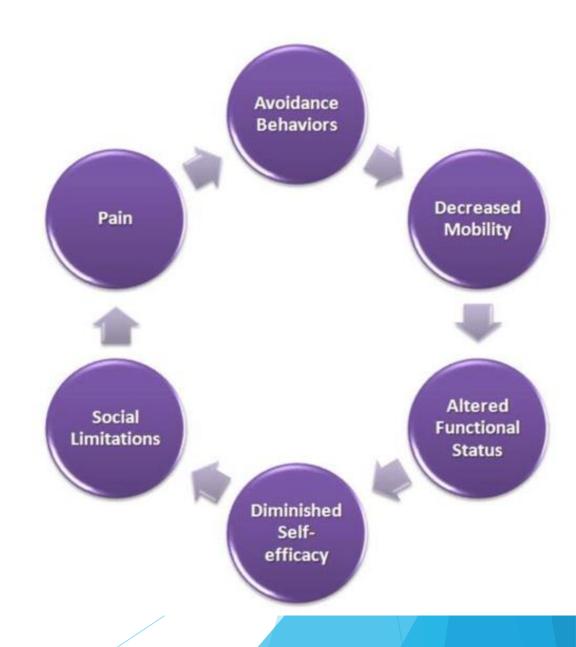
Yoga, tai chi, stretching



Family Health Team

Other Benefits of Movement

- Socialization
- Improved mood
- Sense of accomplishment



Family Health Team

Mental Health



Family Health Team

What Is the Link?

- Patients with chronic pain are 2-7x more likely to experience anxiety, depression, and substance use disorder
- Depression can make a person more sensitive to pain

CHANGES DUE TO CHRONIC PAIN

- Higher stress: affects mood, thinking, and behaviour
- Reduced concentration
- Sleep disturbances
- Social isolation
- = FRUSTRATION = ANGER, DEPRESSION & ANXIETY



Important to treat chronic pain together with mental health if you're experiencing both

Family Health Team

Self-Management

- Maintain a wellness focus in the foreground, even in the midst of a chronic condition, to improve quality of life
- Learn about and take responsibility for daily management of your chronic condition and its consequences
- ▶ Gain confidence, knowledge and skills to manage physical, social and emotional aspects of life, in partnership with health care teams and community supports
- Be your own manager: actively and positively managing your chronic pain on a daily basis



Family Health Team

Self-Management

- Acceptance of chronic pain
- Goal setting: accomplish things you want to do
- Realistic expectations: no cure for chronic pain, improve function by 30%
- ► BETTER OUTCOMES when you are:
 - Actively involved
 - Have skills to deal with consequences of chronic conditions



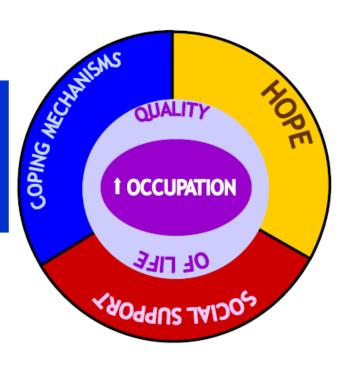


Improved self efficacy, bodily function, and mental health Reduced pain and catastrophizing

Family Health Team

Self-Management

the pain is there but now I've learned how to cope with it, how to deal with it, and [I] get out and do the things that I enjoy doing" (Laura)



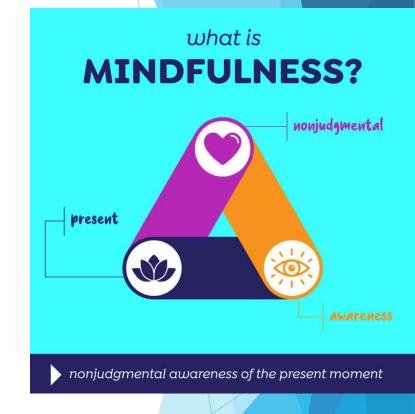
"And to have hope that yes, I have chronic pain, but look at these other people ... some people here are making big strives so if they can why not me." (Jane)

"My biggest thing, walking out of the very first meeting...I am not alone and this could be a good thing." (Martha)

Family Health Team

Mindfulness

- Maintaining a moment-by-moment awareness of our thoughts, feelings, bodily sensations, and surrounding environment, through a gentle, nurturing lens.
- "Mindfulness is awareness that arises through paying attention, on purpose, in the present moment, nonjudgementally." - Jon Kabat-Zinn
- <u>Examples</u>: progressive muscle relaxation, meditation, deep breathing, journaling, body scan mindfulness exercise
 - https://www.health.harvard.edu/pain/mindfulness-meditation-tocontrol-pain



Family Health Team

Resources

Family Health Team

Resources

- Education
 - https://www.youtube.com/@DrAndreaFurlan
 - https://tapmipain.ca/patient/managing-my-pain/pain-u-online/
 - https://myhealth.alberta.ca/Alberta/Pages/About-osteoarthritis.aspx
 - https://arthritis.ca
- Support groups
 - https://chronicpainanonymous.org/
 - https://fibrocanada.ca/en/

Family Health Team

Resources - Nutrition

- Recipe Sources:
 - ► Canada Food Guide: https://food-guide.canada.ca/en/recipes/
 - ► Eating Well: https://www.eatingwell.com/gallery/13723/20-healthy-meals-you-can-make-in-20-minutes/
 - ► No cook recipes: https://www.eatingwell.com/recipes/20770/cooking-methods-styles/quick-easy/dinner/no-cook-dinner/
 - ► ELLICSR Kitchen (by UHN): <u>www.ellicsrkitchen.ca</u>

Family Health Team

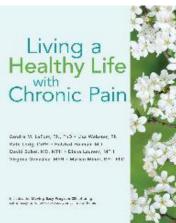
Resources - Physical Activity

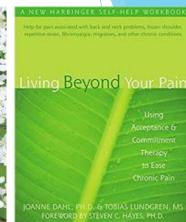
- YouTube videos
 - https://www.youtube.com/@LEAPService
 - https://www.youtube.com/@yogawithadriene
- Websites
 - https://beyond.ubc.ca/exercise-snacks/
- Apps
 - https://otn.ca/providers/ohts/fitness-health-solution-supports-chronic-pain-management/

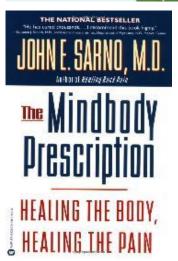
Family Health Team

Resources - Mental Health

- Summerville Programs
 - Anxiety Relief
 - Managing Insomnia and Sleep
- Self-management Programs
 - https://selfmanagementontario.ca/
 - http://livingwellseontario.ca/
 - https://www.maximizeyourhealth.ca/
- Apps
 - Insight Timer, Calm, Headspace, 10% Happier, Inscape, Simple Habit
- Books



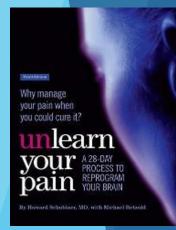


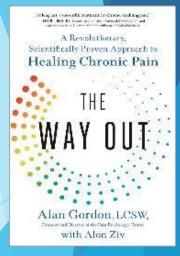




A Doctor's Guide to Lifelong Relief

DR. ANDREA FURLAN





Family Health Team



Questions?