The Other F word: PEER's approach to Fibromyalgia

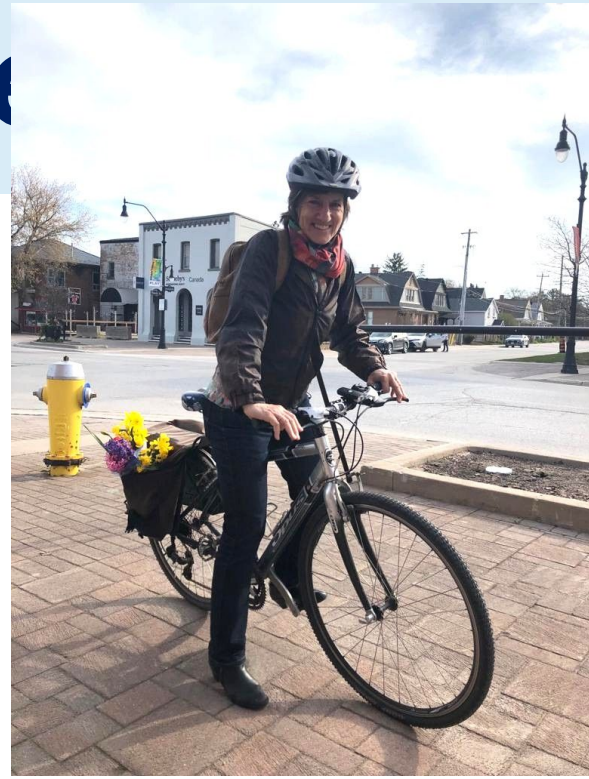
Dr. Jess Kirkword CCFP (AM)
Dr. Jennifer Young CCFP-EM
Family Medicine Forum - November 7, 2025

PEER PATIENTS EXPERIENCE EVIDENCE RESEARCH

Objectives:

1. Identify and assess patients with suspected fibromyalgia in a primary care setting, and outline a comprehensive approach to management
2. Explore the evidence for nonpharmacologic treatments for fibromyalgia, with a focus on exercise
3. Discuss evidence-based pharmacologic interventions for fibromyalgia, including the role of antidepressants and other medications in symptom management

Conflict of Interest Disclosure



Presenter / Faculty: Dr. Jennifer Young MD CCFP-EM

- Speakers Bureau/Honoraria:PEER, OCFP
- Consulting Fees: none
- Grants/Research Support: none
- Patents: none
- Other: Part time Physician Advisor CFPC

THE COLLEGE OF FAMILY PHYSICIANS OF CANADA
LE COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

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Conflict of Interest Disclosure

Presenter / Faculty: Dr. Jess Kirkwood MD CCFP (AM)

- Speakers Bureau/Honoraria: PEIP/PEER, ACFP, Rx Files
- Consulting Fees: None
- Grants/Research Support: None
- Patents: None
- Other: Salaried Associate Professor at the University of Alberta

Nadia Hench

Nadia is a 49 year old woman who has been in your practice for several years. She is on no medications, drinks alcohol occasionally and does not use cannabis products. She works full time in an office job she enjoys and is in a stable same sex partnership with no children.

She came to see you 3 weeks ago for generalized achiness, including her shoulders, fatigue and poor sleep and occasional tingling of her extremities.

DIFFERENTIAL DIAGNOSIS

- Inflammatory/rheumatologic conditions (eg SLE, Rheumatoid Arthritis, Polymyalgia Rheumatica)
- Hypermobility Spectrum Disorders
- Multiple Sclerosis
- Neuropathies/myopathies
- Obstructive sleep apnea
- Hypothyroidism
- Depression
- Post-viral syndromes
- Chronic fatigue syndrome/myalgic encephalitis
- Drug side effects (aromatase inhibitors, lipid lowering agents, high dose opioids)

She had had no recent illnesses and hadn’t noticed any swollen joints or rashes. She has no red flag symptoms like weight loss, unexplained fever, drenching night sweats, chest pain or dyspnea. Screening for depression with the PHQ-2 was negative and she had no suggestion of obstructive sleep apnea or restless legs.

On exam:

BP: 138/88 BMI: 30 no pallor, no peripheral edema

Skin: no rashes

Nodes: no supraclavicular, cervical, axillary or groin nodes

MSK: no swelling of any joints, normal range of motion of neck, upper and lower extremity and back. Some tenderness across shoulder girdle and low back.

Cardiorespiratory: no murmurs, chest clear

Abdomen: normal liver margin, no masses or tenderness

Hey, sorry that you are still feeling so lousy. We have your blood work here and it is all normal.

Darn…I guess! I was hoping there was something we could just fix with a pill.

Hb: 128 MCV 90 WBC: 3.5

HbA1c: 5.1 eGFR: 78 normal electrolytes

ESR: 8

TSH: 3.2

Fibromyalgia … not a diagnosis of exclusion

Canadian guidelines emphasizing that the diagnosis should be made in the primary care setting and does not require specialist confirmation.

Classic teaching of “number of tender points” for diagnosis is not supported by evidence and is no longer required to make the diagnosis.

Testing: careful history and clinical examination followed by simple blood tests rule out most common conditions (example: anemia, hypothyroidism, inflammatory arthritis or polymyalgia rheumatica, medication side effects).

Body map

Use the figures to record where pain occurs in detail. Shade the areas of your body where you have felt persistent or recurrent pain for the past 3 months or longer (chronic pain).

Calculating the WPI score

Use this checklist to calculate the widespread pain index (WPI) score. Tick the areas where you have had chronic pain for 3 months or longer.

Region 1: left upper

- ☐ L jaw
- ☐ L shoulder girdle
- ☐ L upper arm
- ☐ L lower arm and/or L wrist/hand, L elbow

Region 2: right upper

- ☐ R jaw
- ☐ R shoulder girdle
- ☐ R upper arm
- ☐ R lower arm and/or R wrist/hand, R elbow

Region 3: left lower

- ☐ L hip and/or L buttock
- ☐ L upper leg and/or L groin
- ☐ L lower leg and/or L ankle/foot, L knee

Region 4: right lower

- ☐ R hip and/or R buttock
- ☐ R upper leg and/or R groin
- ☐ R lower leg and/or R ankle/foot, R knee

Region 5: axial

- ☐ Neck
- ☐ Upper back
- ☐ Lower back
- ☐ Chest (L and/or R)
- ☐ Abdomen

Symptom severity scale (SSS)

Have your problems with the symptoms below been present for 3 months or more? ☐ Yes ☐ No

If yes, using the following scale, indicate the severity of each symptom over the past week by circling the appropriate number.

	No problem	Mild	Moderate	Severe
Fatigue	0	1	2	3
Trouble thinking or remembering	0	1	2	3
Waking up tired (unrefreshed)	0	1	2	3

During the past 6 months, have you had any of the following symptoms?

Pain or cramps in lower abdomen	☐ Yes	☐ No
Depression	☐ Yes	☐ No
Headache	☐ Yes	☐ No

Total score* for the SSS _____

Also associated: TMJ dysfunction, painful bladder syndrome, IBS, sensitivity to light, sound, temperature, and medication side effects

- add 0 (none), 1 (a few), 2 (moderate amount), or 3 (lots)

Can you make the diagnosis of fibromyalgia yet?

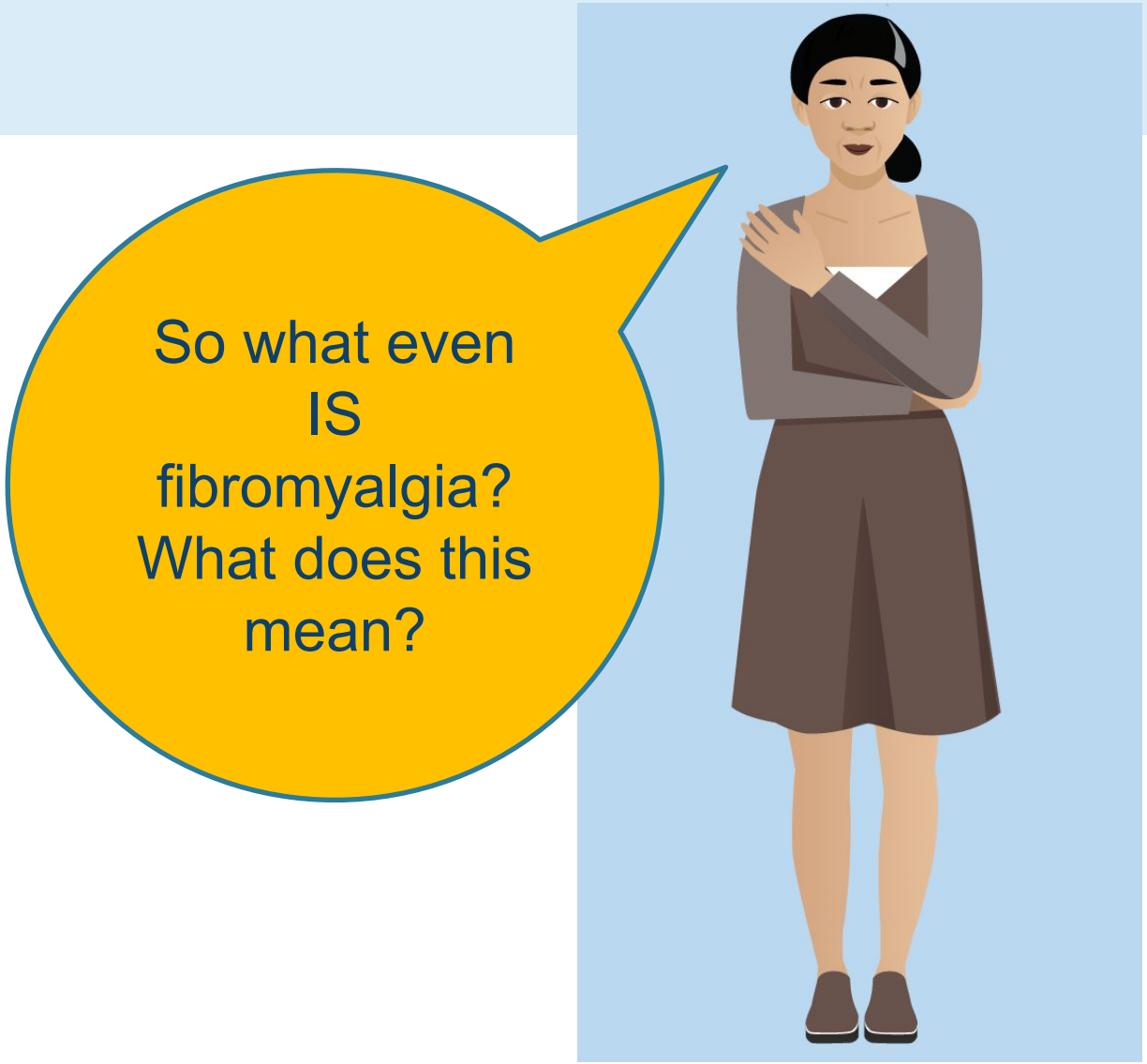
JY

Required scores for diagnosis:

WPI ≥ 7 and SSS ≥ 5
OR
WPI 4-6 and SSS ≥ 9

High Specificity = 90-98.5%
Moderate Sensitivity = 70-78%

WPI = Widespread Pain Index
SSS = Symptom Severity Score


So what even IS fibromyalgia? What does this mean?

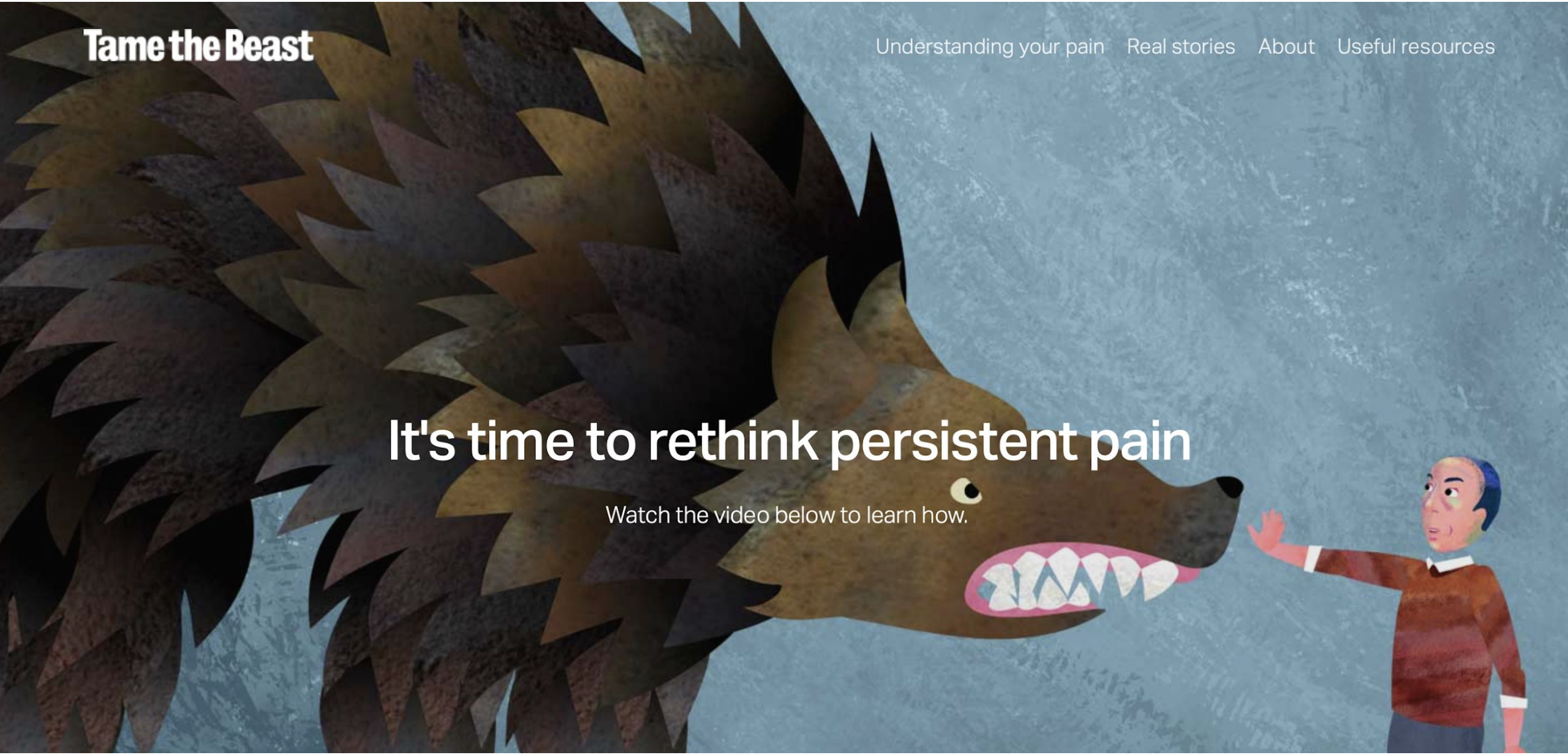
Nociplastic Pain

"pain that arises from altered nociception despite no clear evidence of actual or threatened tissue damage causing the activation of peripheral nociceptors or evidence for disease or lesion of the somatosensory system causing the pain."

This is a disorder of the **central nervous system**.

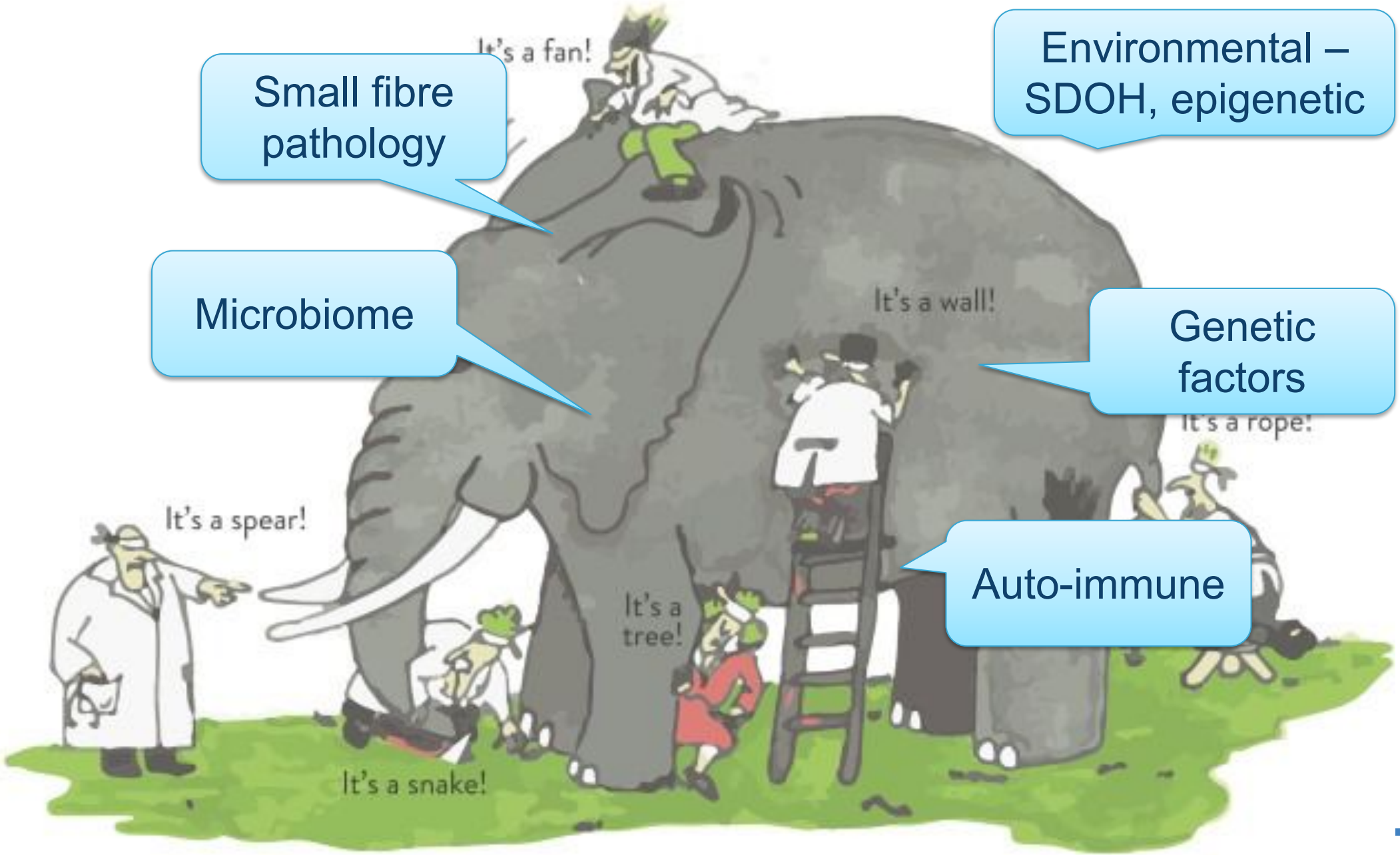
Raja SN et al. Pain. 2020 Sep 1;161(9):1976-1982.

Fire Alarm


Tame the Beast
Understanding your pain
Real stories
About
Useful resources
It's time to rethink persistent pain
Watch the video below to learn how.


What caused this? Why me?


It's a fan!
It's a wall!
It's a rope!
It's a spear!
It's a tree!
It's a snake!



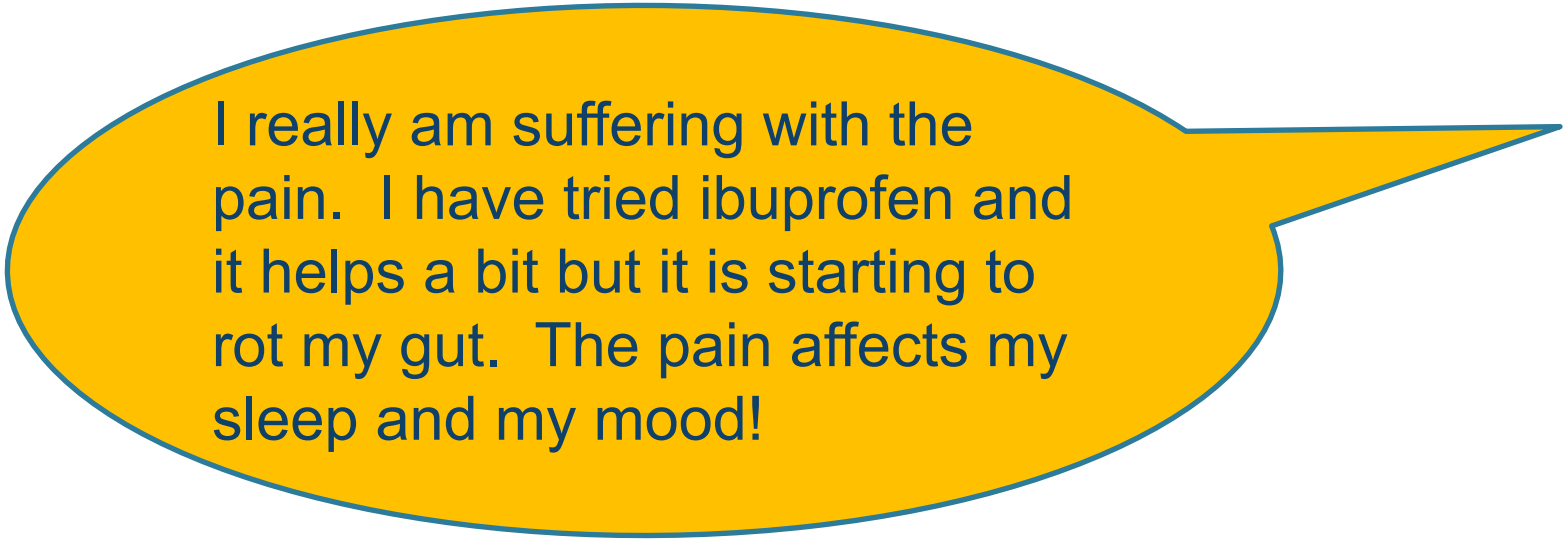
Small fibre pathology

Environmental – SDOH, epigenetic

Microbiome

Genetic factors

Auto-immune



Which of these medications have evidence for use in fibromyalgia? Select all that apply.

a. pregabalin
b. oxycodone
c. duloxetine
d. mirtazapine
e. Cannabinoids
f. SSRIs

Which of these medications have evidence for use in fibromyalgia: Select all that apply.

a. pregabalin

b. oxycodone

c. duloxetine

d. mirtazapine

e. Cannabinoids

f. **SSRIs**

Pregabalin (5 RCTs, 3283 patients, 150-600mg daily)

- ≥30% reduction in pain:
  - 150mg (total daily dose): no difference versus placebo.
  - 300-600 mg, 39-43% versus 29% (placebo), Number Needed to Treat (NNT)~8-10.

Pregabalin

Adverse events increase with higher daily doses:

Adverse Event	placebo	150mg dose	600mg dose	Number Needed to Harm (NNH)
Somnolence	~5%	16%	23%	6-9
Dizziness	~10%	23%	46%	3-8
Peripheral Edema	~2%	5%	11%	9-33
Withdrawal due to Adverse Events	~10%	10%	28%	6

Gabapentin has less evidence (one RCT of 150 patients, 1200-2400 mg daily)

- >30% pain reduction: 51% people versus 30% on placebo
- Global improvement “better”:
  - 68% versus 35%, NNT=3
- Adverse events:
- Sedation 24% versus 4%, dizziness 25% versus 9%, NNH=5-7
- Withdrawal due to adverse events: no difference.

Gabapentinoids: Bottom line:

1. In patients with fibromyalgia, a meaningful pain reduction (30%) occurs in ~40% with **pregabalin** (300-600mg) compared to 30% with placebo. Somnolence (16-23%) dizziness (23-46%) and peripheral edema (5-11%) are increased compared to placebo.

2. **Gabapentin** (~1800mg) may improve pain in 50% compared with 30% placebo based on one small RCT with more dizziness and sedation (16-20%) than placebo.

90-day costs: pregabalin 300mg ~$95; gabapentin 1800mg ~$90.

Duloxetine: 4 systematic reviews (6-7 RCTs, 2249-2492 patients) 60-120 mg od

- >30% pain reduction: 50% patients on 60-120 mg duloxetine compared to about 35% on placebo.
- Adverse effects: nausea (26%), constipation (15%) and headache (14%) versus 4-8% placebo; hyperhidrosis 8% versus 1% placebo. People stopped duloxetine due to side effects more often at 120 mg (21% versus 11% placebo).

There is insufficient evidence comparing duloxetine with other antidepressants or with gabapentinoids.

Mirtazapine: (3 RCTs with 591 patients but low quality evidence) average dose 30 mg

- >30% pain reduction: 47% versus 34% (placebo), NNT=8
- Adverse effects: Somnolence: 41% versus 14% placebo (N
  weight gain 19% versus 1% placebo (NNH=6).
  - On balance, adverse events seem to outweigh symptom relief.

First line, with highest quality evidence, is duloxetine or pregabalin

Young J, Perry D, Thomas B. Tools for Practice #375: Pharm for Fibro: Can antidepressants ease the pain?

Other antidepressants

SSRIs (fluoxetine, citalopram, paroxetine):

- Systematic Review (7 RCTs, 383 patients, 6-16 weeks).
- ≥30% reduction in pain: 33% versus 23% (placebo), NNT=10.
- Adverse event withdrawals: no difference

Amitriptyline:

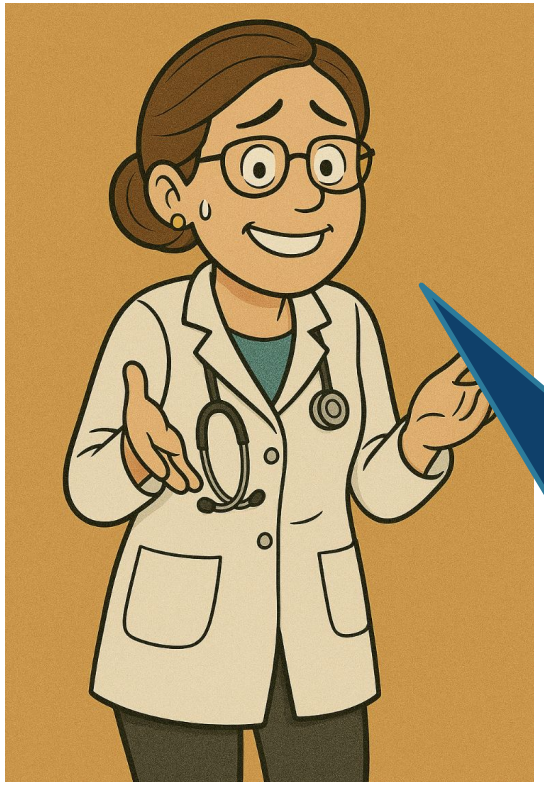
- Systematic Review (4 RCTs, 275 patients, 25-50mg daily, 8-24 weeks).
- >50% pain reduction: 36% versus 11%, NNT=5.
- Adverse event withdrawals and adverse events: no difference.

Other interventions

Oxycodone: Cochrane review of oxycodone found no studies that looked at patients with fibromyalgia. In the absence of evidence of significant benefit and the known risks of harms, oxycodone (and other opioids) should be avoided.

Cannabinoids: 2 RCTs with total 72 patients, nabilone 1 mg daily

Very low quality evidence and did not report >30% reduction in pain. Cochrane reviewers concluded that there is no convincing evidence for value and found low tolerability.



Yes, unfortunately medications that help fibromyalgia also can make you sleepy.

Have you thought about increasing your physical activity?

Hmmm. I am already sleepy and I don't really want to gain weight.

Well, maybe, but I was worried it would make my pain worse. I am pretty out of shape.

Exercise improves pain and quality of life in patients with fibromyalgia.

True / False / Maybe

Aerobic exercise –improvement compared to no exercise:

- Quality of life improved 8%
- Pain score (/100) improved ~ 11%
- Withdrawls: no difference in withdrawls

Aquatic exercise compared to controls:

- Multidimensional function ~6%
- Pain score /100 improved ~ 7%.

Minimally clinically important changes in pain scales are considered ~15%.

Exercise improves pain and quality of life in patients with fibromyalgia.

True / False / **Maybe**

Kirkwood J, Young J. “Fit for Fibro: Does exercise help pain or function in fibromyalgia?” *Tools for Practice* #396, 2025

Resistance/Strength exercise –improvement compared to no control:

- Quality of life improved 19%
- Pain score (/100) improved ~ 10%
- Fatigue - only reported SMD, results uninterpretable

Combined exercise (minimum two of aerobic/aquatic/resistance /stretching) compared to controls:

- Multidimensional function ~7%
- Pain score /100 improved ~ 6%
- Fatigue improved 13%

Exercise improves pain and quality of life in patients with fibromyalgia.

True / False / **Maybe**

Kirkwood J, Young J. “Fit for Fibro: Does exercise help pain or function in fibromyalgia?” *Tools for Practice* #396, 2025

- Though none of the systematic reviews on exercise looked at 30% improvement in pain, the percentage improvement in pain scores was similar to that of medication.
    - Example: the mean change from baseline pain scale was 31% reduction with duloxetine versus 21.5% improvement with placebo, making the difference from placebo 9.5%. Pain scores were also improved by ~7-10% with exercise compared to placebo.

Kirkwood J, Young J. “Fit for Fibro: Does exercise help pain or function in fibromyalgia?” *Tools for Practice* #396, 2025

The Canadian Fibromyalgia guidelines indicate that exercise should be the **“cornerstone of treatment”.**

Patients can try any exercise they like and think they can do regularly – this has been corroborated in evidence around exercise for reduction of cardiovascular events.

Fitzcharles MA, Ste-Marie PA, Goldenberg DL et al. Pain Res Manag. 2013 May-Jun;18(3):119-26.

Exercise has also been associated improved mood and reduces heart attacks and strokes.

Some people with fibromyalgia might be a bit more uncomfortable while exercising, but in the end it seems to help overall well being.

Ugh, I have always been terrible at sticking to exercise. I usually go out too hard and then burn out.

Kolber M R., Klarenbach S, Cauchon M, et al. Can Fam Physician. 2023 Oct;69(10), 675-686.

What different approach mi
try this t

Physical activity prescriptions, combined with patient-specific goals and monitoring, may increase physical activity levels by up to ~1200 steps/day at ~1 year, with an additional 1 person becoming active for every 10 prescribed activity compared to general advice alone.

e to

ow

I would h
it takes 30 days to “make a h uld review your progress with you, if you wante me your watch data”?

Lindblad AJ, Raha SS, Lun V. “Should family physicians add ‘physical activity’ to their prescription pads?” *Tools for Practice*, #254

Rx PHYSICAL ACTIVITY

Pursuing gradual, incremental gains towards improved function & active living!

Name: _____

Date: _____

Goal(s) of exercise therapy: _____

_____

Check ☑	
❑	**AEROBIC / CARDIOVASCULAR ACTIVITY** Activity: _____ (examples at bottom of page) Frequency: 2 3 4 5 6 7 days per week Intensity: light moderate vigorous Time: 5 10 15 20 30 40 minutes per session
❑	**STRENGTH / RESISTANCE ACTIVITY** Activity: _____ (examples at bottom of page) Frequency: 2 3 4 5 6 7 days per week
❑	start at very low intensity, and gradually increase
❑	reduce sedentary activities such as watching TV or using a computer (or do exercises during these activities e.g. leg raises during commercial breaks)
❑	may use short-acting pain reliever _____ prior to activity
❑	people with diabetes & at risk of low blood sugars: please check blood sugars before & after exercise
❑	please keep a daily journal of exercise
❑	please use a pedometer / phone / FitBit to keep track of daily steps: set a realistic goal
❑	please follow-up with me _____
❑	please use caution with _____ (seek medical attention if chest pains)

Healthcare Provider signature:_____ Patient signature:_____

HEALTH CANADA GUIDELINES ON EXERCISE

- Be active at least 2.5 hours (150 minutes) every week to achieve health benefits.
- Focus on moderate to vigorous Aerobic Activities throughout each week, broken into sessions of 10 minutes or more.
- Get stronger by adding Strength Activities that target your muscles and bones at least two days per week.

EXAMPLES OF AEROBIC ACTIVITIES

walking, running, hiking, swimming, cycling, stair climbing, housework, cross-country skiing, dancing, gardening, competitive sports (baseball, soccer, tennis, basketball, badminton, squash, volleyball, pickle ball, etc.) ...

EXAMPLES OF STRENGTH ACTIVITIES

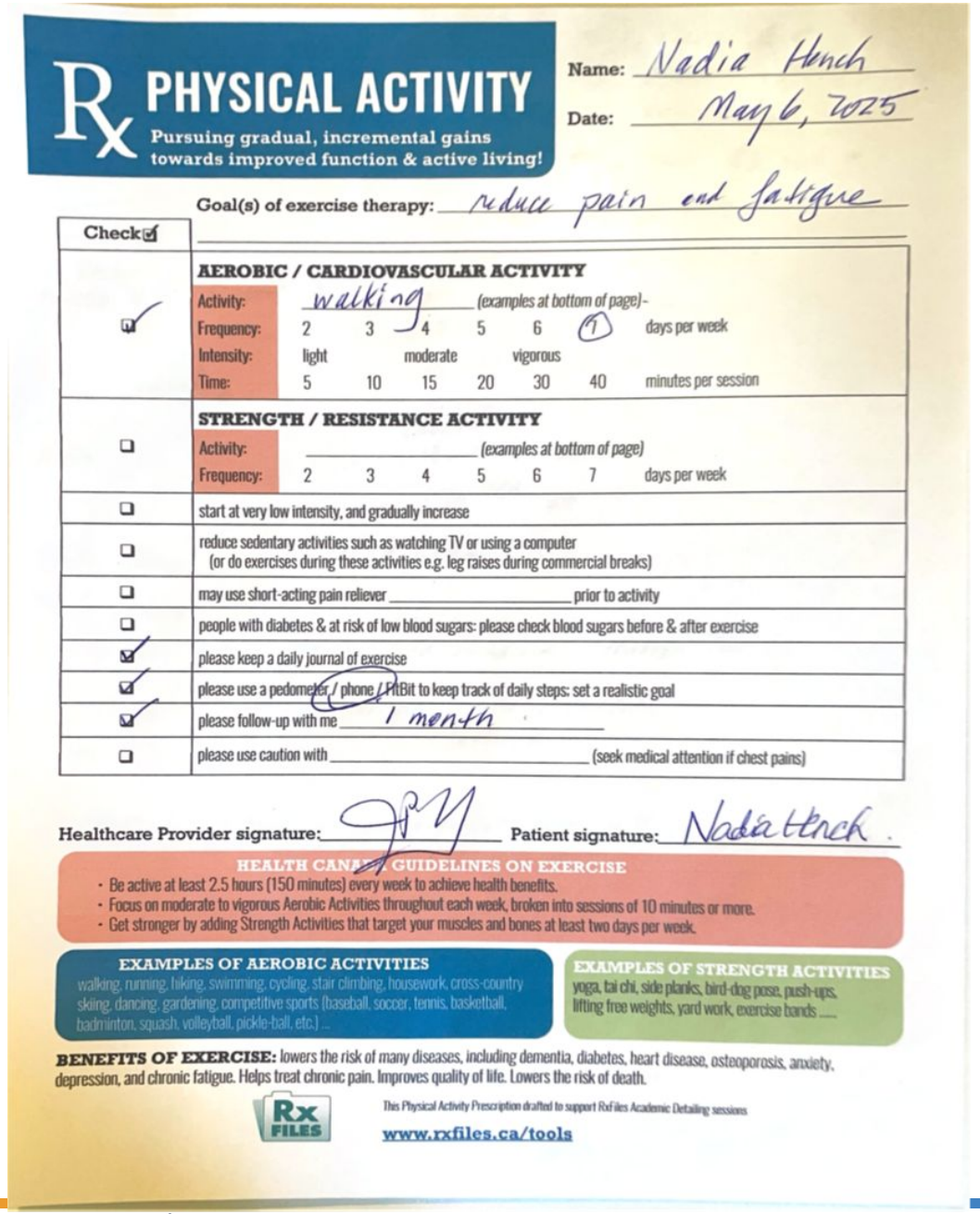
yoga, tai chi, side planks, bird-dog pose, push-ups, lifting free weights, yard work, exercise bands ....

BENEFITS OF EXERCISE: lowers the risk of many diseases, including dementia, diabetes, heart disease, osteoporosis, anxiety, depression, and chronic fatigue. Helps treat chronic pain. Improves quality of life. Lowers the risk of death.

Rx FILES

This Physical Activity Prescription drafted to support RxFiles Academic Detailing sessions

www.rxfiles.ca/tools



Rx PHYSICAL ACTIVITY

Pursuing gradual, incremental gains towards improved function & active living!

Name: Nadia Hench

Date: May 6, 2025

Goal(s) of exercise therapy: reduce pain and fatigue

Check ☑	
☑	**AEROBIC / CARDIOVASCULAR ACTIVITY** Activity: walking (examples at bottom of page) Frequency: 2 3 4 5 6 (7) days per week Intensity: light moderate vigorous Time: 5 10 15 20 30 40 minutes per session
☐	**STRENGTH / RESISTANCE ACTIVITY** Activity: _____ (examples at bottom of page) Frequency: 2 3 4 5 6 7 days per week
☐	start at very low intensity, and gradually increase
☐	reduce sedentary activities such as watching TV or using a computer (or do exercises during these activities e.g. leg raises during commercial breaks)
☐	may use short-acting pain reliever _____ prior to activity
☐	people with diabetes & at risk of low blood sugars: please check blood sugars before & after exercise
☑	please keep a daily journal of exercise
☑	please use a pedometer / phone / FitBit to keep track of daily steps: set a realistic goal
☑	please follow-up with me 1 month
☐	please use caution with _____ (seek medical attention if chest pains)

Healthcare Provider signature: _____ Patient signature: Nadia Hench

HEALTH CANADA GUIDELINES ON EXERCISE

- Be active at least 2.5 hours (150 minutes) every week to achieve health benefits.
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EXAMPLES OF AEROBIC ACTIVITIES

walking, running, hiking, swimming, cycling, stair climbing, housework, cross-country skiing, dancing, gardening, competitive sports (baseball, soccer, tennis, basketball, badminton, squash, volleyball, pickle-ball, etc.) ...

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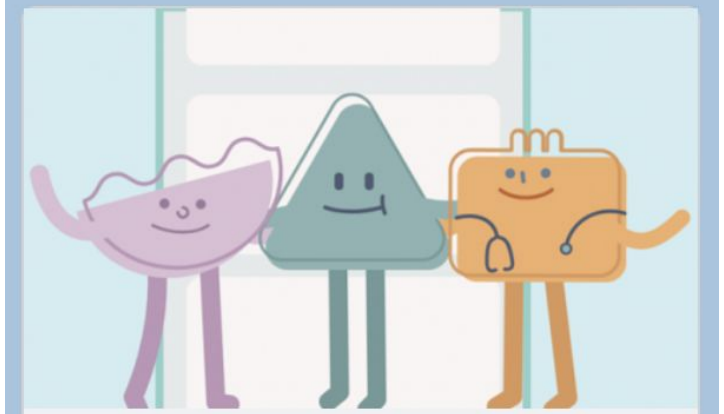


LivePlanBe+

We know how pain can affect your life. LivePlanBe+ is a program that helps us learn to make small changes that add up to big improvements in our well-being.

Go to Resource | Learn more

My SleepWell

Sleepwell has two main goals: 1) to help people with insomnia get their sleep back without medications; and 2) to help people stop taking sleeping pills safely and effectively.

Go to Resource | Learn more

Gentle Movement @ Home

Guided movement and relaxation videos for pain

Go to Resource | Learn more

https://poweroverpain.ca

https://liveplanbeplus.ca/https://liveplanbeplus.ca/

Biopsychosocial Factors and Approaches to Treatment

Building a Flare-Up Plan

Communication

Health Care

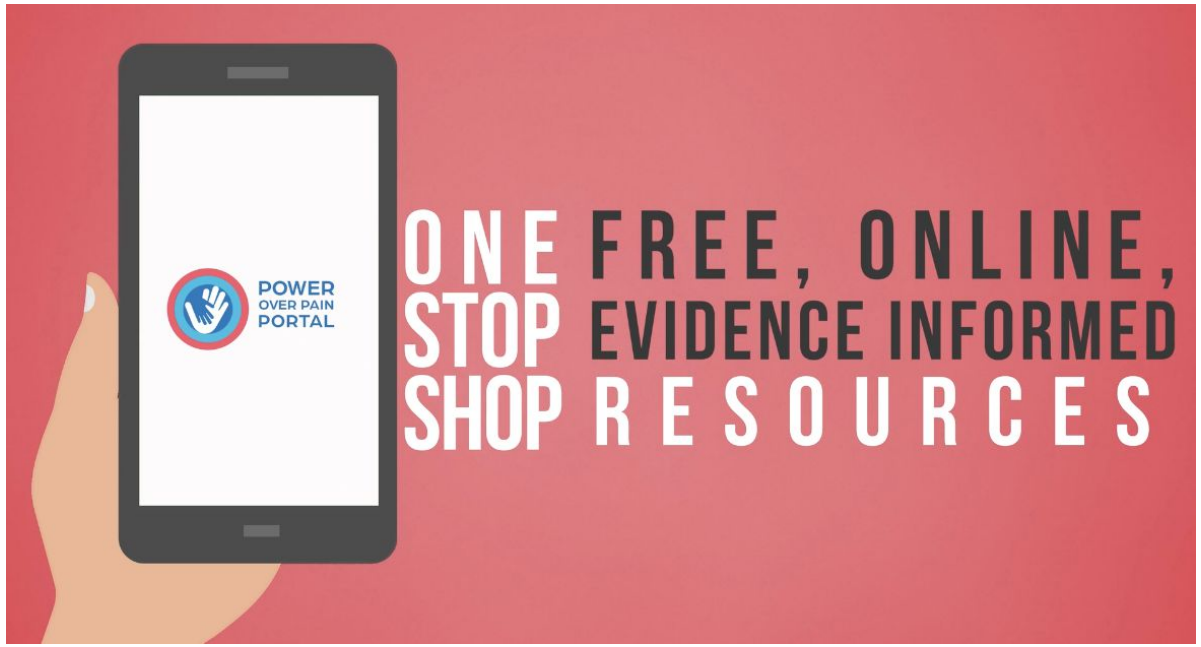
How to Use LivePlanBe+

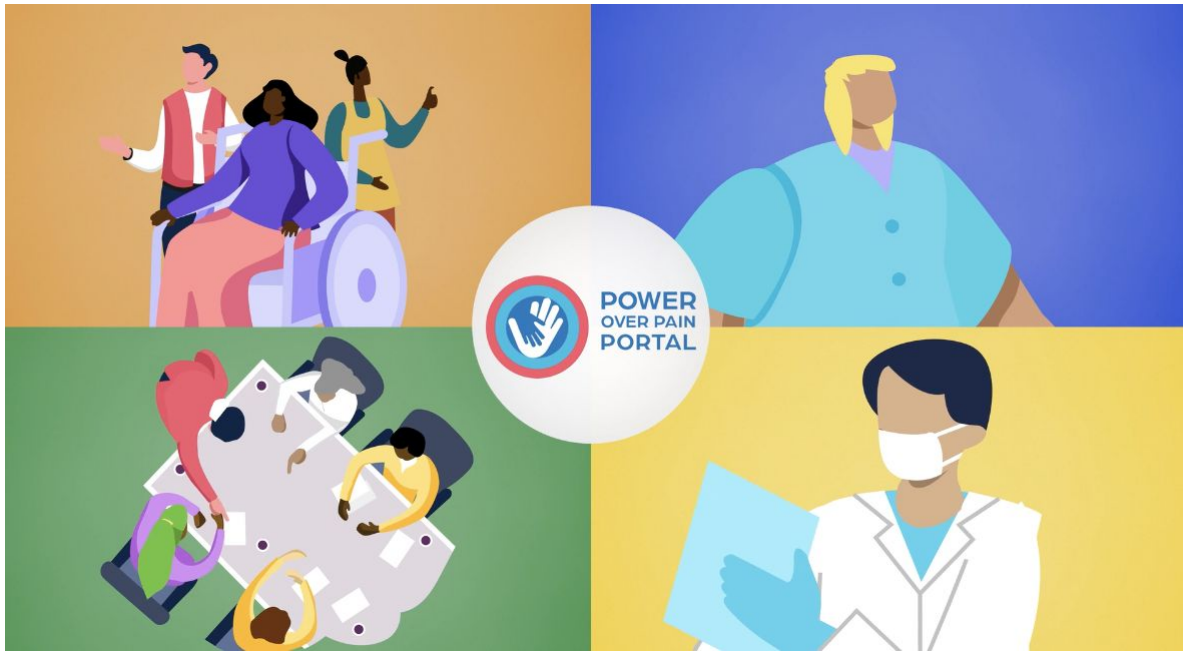
Identity

Introduction to Pain

Mood and Behaviour

https://poweroverpain.ca





Okay, if you can help hold me accountable, I would like to try that.

Well, you know, exercise IS medicine, and I like to follow up on the “medicine” that I prescribe!

Plan:

You discuss a starting exercise regimen with Nadia. She is agreeable with going for daily walks as a start and will defer starting any medications for now. You have a look at her watch and show her where to press the workout button and then show her the phone app that can track her physical activity.

You print off a Rx Physical Activity that you have in your EMR and fill it out.

She re-books an appointment for 1 month.

References:

Fitzcharles MA, Ste-Marie PA, Goldenberg DL et al. Pain Res Manag. 2013 May-Jun;18(3):119-26

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PEER PATIENTS EXPERIENCE EVIDENCE RESEARCH

Ontario College of Family Physicians

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LE COLLÈGE DES MÉDECINS DE FAMILLE DE LA SASKATCHEWAN

A CHAPTER OF THE COLLEGE OF FAMILY PHYSICIANS OF CANADA
UNE SECTION DU COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

Less evidence (Include?)…

- low dose naltrexone 4.5mg daily
  - rationale: elevated levels of circulating endorphins in FM
  - positive effects on spontaneous pain, hyperalgesia
  - very well-tolerated (most common side effect=vivid dreams)
  - small, short studies, often no control
  - no measurement of function
- magnesium supplementation
  - rationale: Mg is typically tissue bound and not measured in serum, so deficiency can be masked
  - studies are small, short, no controls
  - most studies examine Mg in combination with other interventions

Yang, J., Shin, K. M., Do, A., Bierle, D. M., Abu Dabrh, A. M., Yin, Z., … Mohabbat, A. B. (2023). The Safety and Efficacy of Low-Dose Naltrexone in Patients with Fibromyalgia: A Systematic Review. Journal of Pain Research, 16, 1017–1023.

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