Centralized Pain Care Optimization

Improving Nociplastic Pain Care in Primary Care

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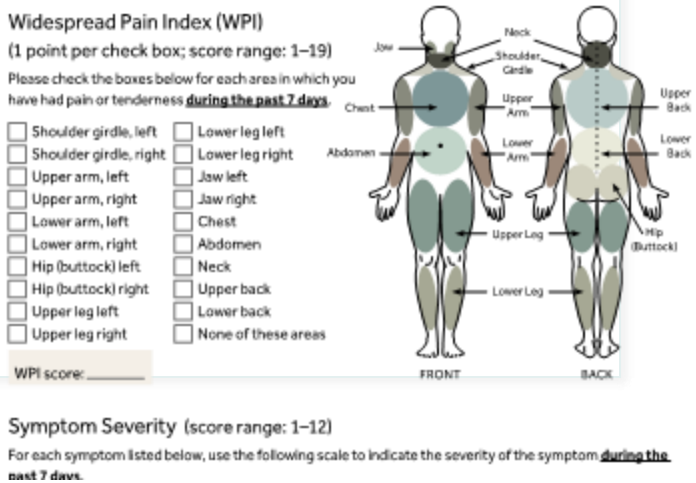
Medical Director, Clackamas Health Centers

Goals

- Learn how to reconceptualize pain to improve our pain care planning and create a more positive patient/clinician interaction
- Increase resiliency by decreasing your stress and improving your effectiveness in navigating patients experiencing pain
- Describe how an integrated system can be optimized to do this
- Provide you with knowledge, language and resources to help lead your patient's pain care strategy

Improving Centralized Pain Care



Widespread Pain Index (WPI)

(1 point per check box; score range: 1–19)

Please check the boxes below for each area in which you have had pain or tenderness **during the past 7 days**.

- ☐ Shoulder girdle, left
- ☐ Shoulder girdle, right
- ☐ Upper arm, left
- ☐ Upper arm, right
- ☐ Lower arm, left
- ☐ Lower arm, right
- ☐ Hip (buttock) left
- ☐ Hip (buttock) right
- ☐ Upper leg left
- ☐ Upper leg right
- ☐ Lower leg left
- ☐ Lower leg right
- ☐ Jaw left
- ☐ Jaw right
- ☐ Chest
- ☐ Abdomen
- ☐ Neck
- ☐ Upper back
- ☐ Lower back
- ☐ None of these areas

WPI score: _____

Symptom Severity (score range: 1–12)

For each symptom listed below, use the following scale to indicate the severity of the symptom **during the past 7 days**.

Example Goals from Clackamas Work

- Use evidence-based (EBM) Dx and reduce barriers to diagnosis
  - PCP, therapist, psychiatry **all can Dx**
    - Utilize EBM screening tools, include this in problem list (all three can use problem list for this)
- Increase likelihood EBM is used in integrated care
  - Therapists more comfortable engaging on topic
  - Prescribers utilizing EBM Rx guidelines
  - Avoiding future use of long term opioids
- Identify early signs (“pre-fibro”)
  - Support patients early in the continuum to reduce likelihood of future increased morbidity

Clinical Vignette

- Mr B is a 52 y/o male s/p cholecystectomy. Prior to this was not on chronic opioids and has a PMHx of HTN, obesity, and migranes
- Calls Friday, surgeon denied his opioid refill request, told to talk to PCP. Up to now has had 3.5 weeks of PRN opioids.
- You see his recovery was typical and surgery went well, and at this point he should no longer have a need for post-operative opioids

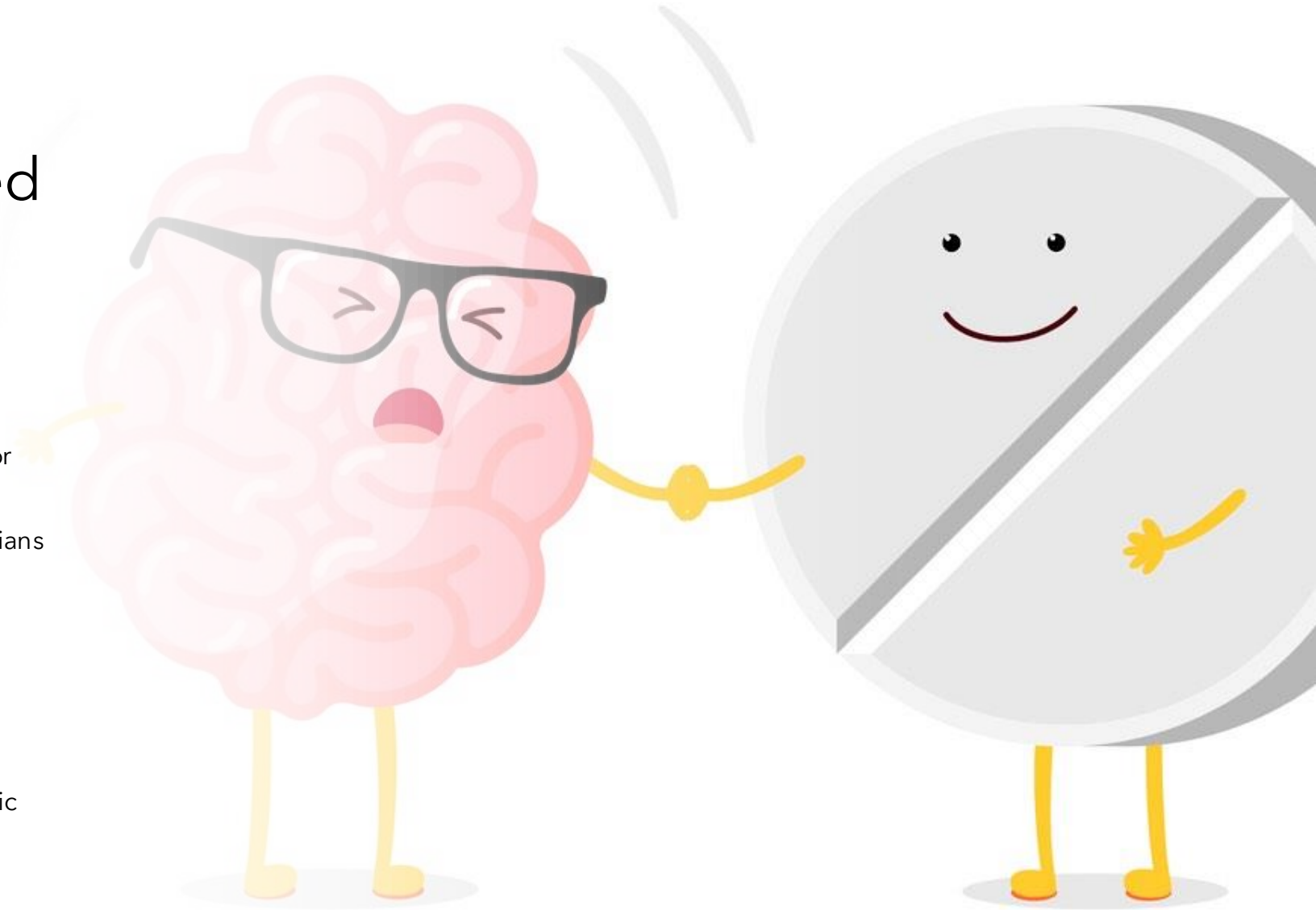
Differential

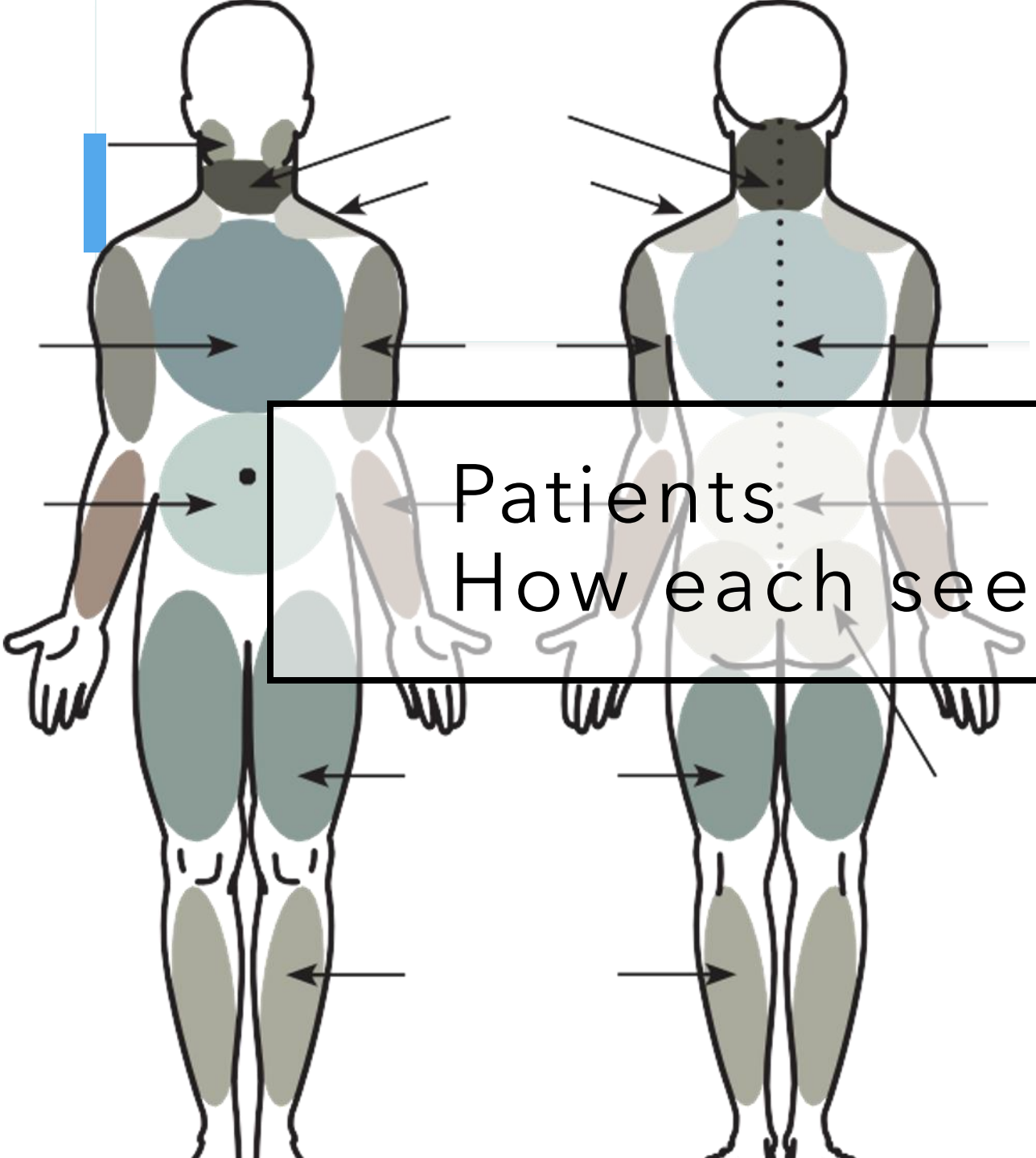
- Surgical complication/abnormal healing
- Diversion
- Opioid Use Disorder
- Paradoxical response to opioids*

*Hint, possibly why we are here, though the above options are also reasonable. The hope is that option 4 comes to mind more often after this talk

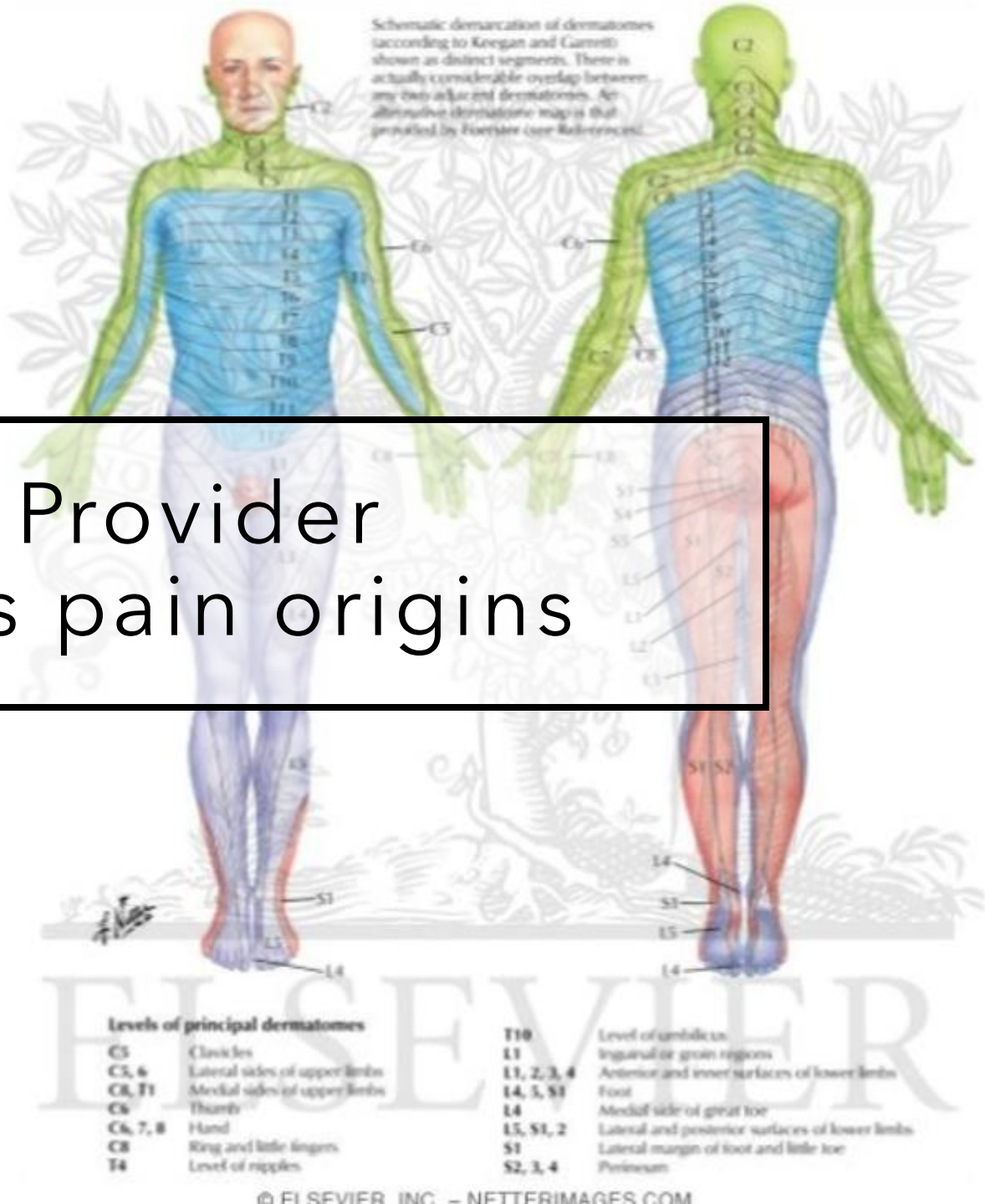
Why Focus on Centralized Pain?

- Common in patients
  - Diagnosis is not clear, medication issues
  - Often stigma surrounding such diagnoses (Fibromyalgia, chronic fatigue, Elhers-Danos) for patients **and** providers
- Knowing this can reduce burnout and empower clinicians
- We often find patients with centralized pain:
  - On high dose, long term opioids
    - Often with OUD
  - Are extremely difficult to taper
  - Will be our most difficult patients
    - Exhaust providers, support staff, and clinic leadership





Patients Provider
How each sees pain origins



Historical Thinking Regarding Chronic Pain

Nociception:

- ongoing input from real or possible tissue injury

Neuropathic:

- injury or disease affecting the peripheral or central nervous system

Definition- Noci**plastic** pain

Nociplastic pain: pain arising from altered function of pain-related sensory pathways in the peripheral and central nervous system, causing increased sensitivity[1]

[1]Woolf CJ. Central sensitization: implications for the diagnosis and treatment of pain. *Pain* 2011; **152**(3 suppl): S2-15

Nociplastic Summary, Clauw 2024

- Cardinal Symptoms:
  - Widespread pain + fatigue, sleep, and memory issues
- Objective Evidence Exists of:
  - Amplification/augmentation of pain, unpleasant response to brightness of lights and unpleasant sound/odors
- Triggered by:
  - Trauma, infections, and chronic stressors
- CNS has clear role in causing and maintaining nociplastic pain
  - In some patients, is driven by nociceptive input

Clauw DJ From fibrositis to fibromyalgia to nociplastic pain: how rheumatology helped get us here and where do we go from here? Annals of the Rheumatic Diseases Published Online First: 06 August 2024. doi: 10.1136/ard-2023-225327

Clauw Continued

"..it is now clear that

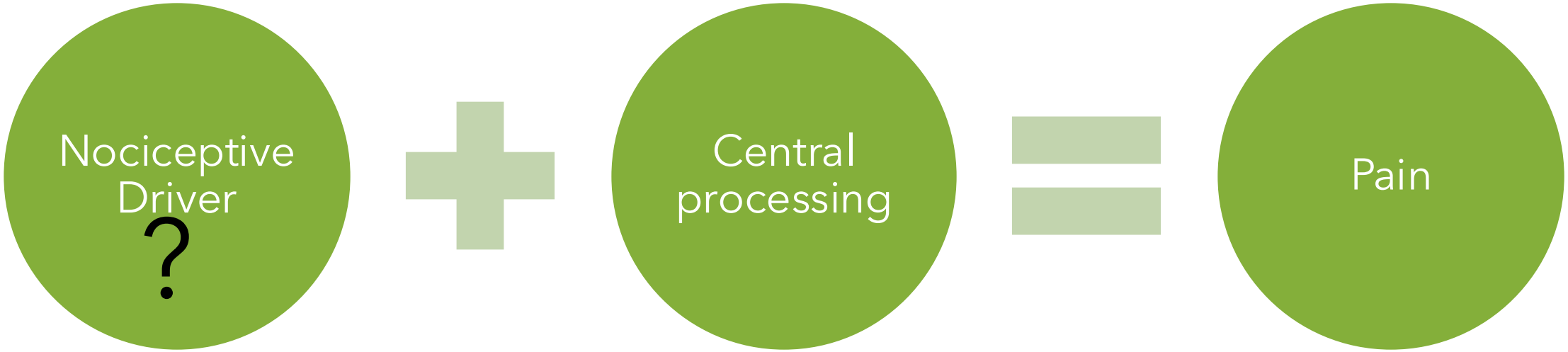
- nociplastic pain is common both as a sole pain mechanism (eg, FM) or superimposed on nociceptive or neuropathic pain and
- when an individual has nociplastic pain they will respond less well to peripherally directed therapies and better to centrally directed therapies"

- The mainstay of therapy is non-pharmacologic
  - Interventions to improve activity/exercise, sleep, and psychologic co-morbidities

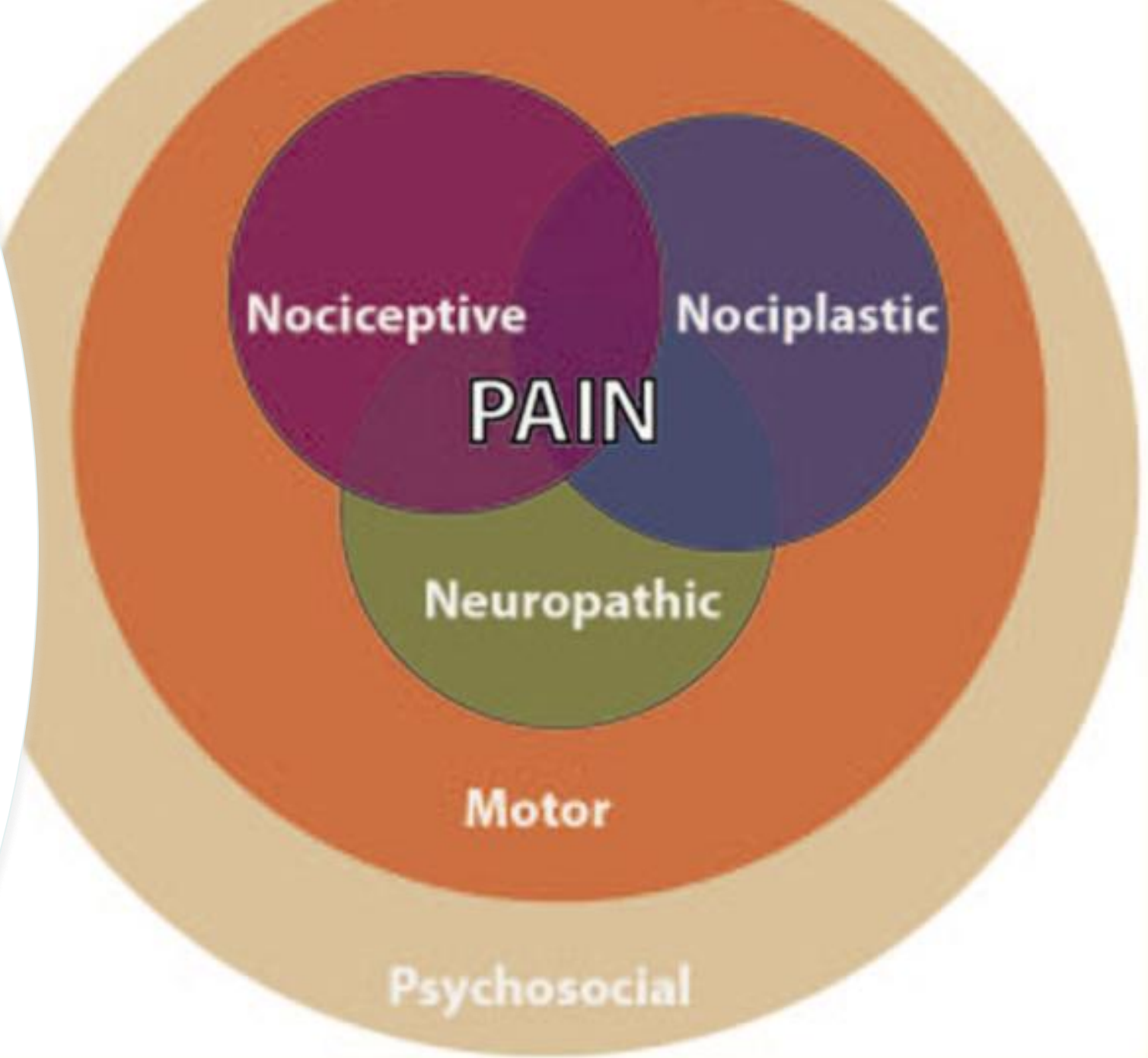
“Nociception is neither necessary nor sufficient to experience pain.”

-G. Lorimer Moseley, PT, PhD

Pain Experience

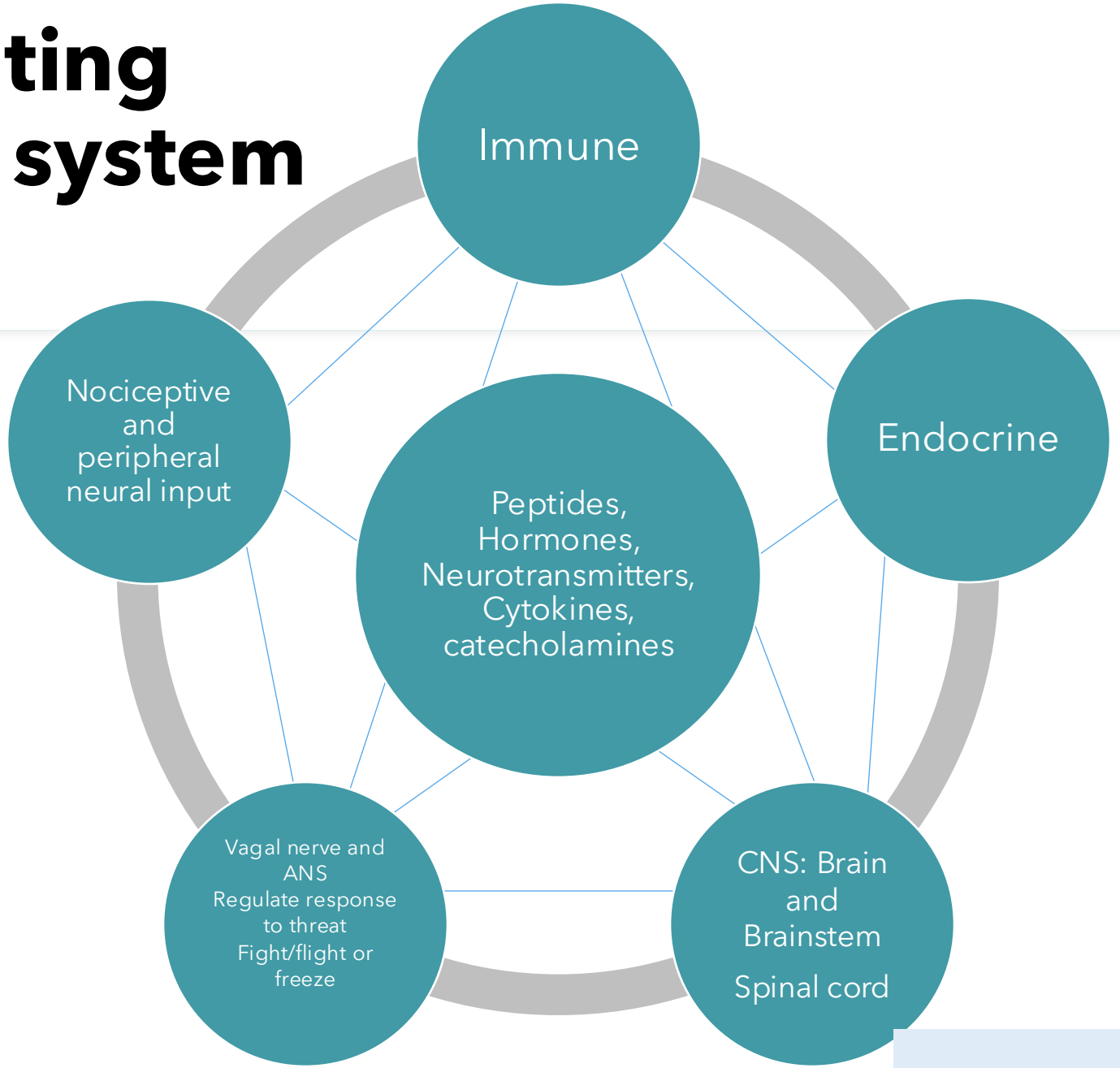


No Pain Category is Exclusive



Chimenti RL, Frey-Law LA, Sluka KA. A Mechanism-Based Approach to Physical Therapist Management of Pain. Phys Ther. 2018 May 1;98(5):302-314. doi: 10.1093/ptj/pzy030. PMID: 29669091; PMCID: PMC6256939.

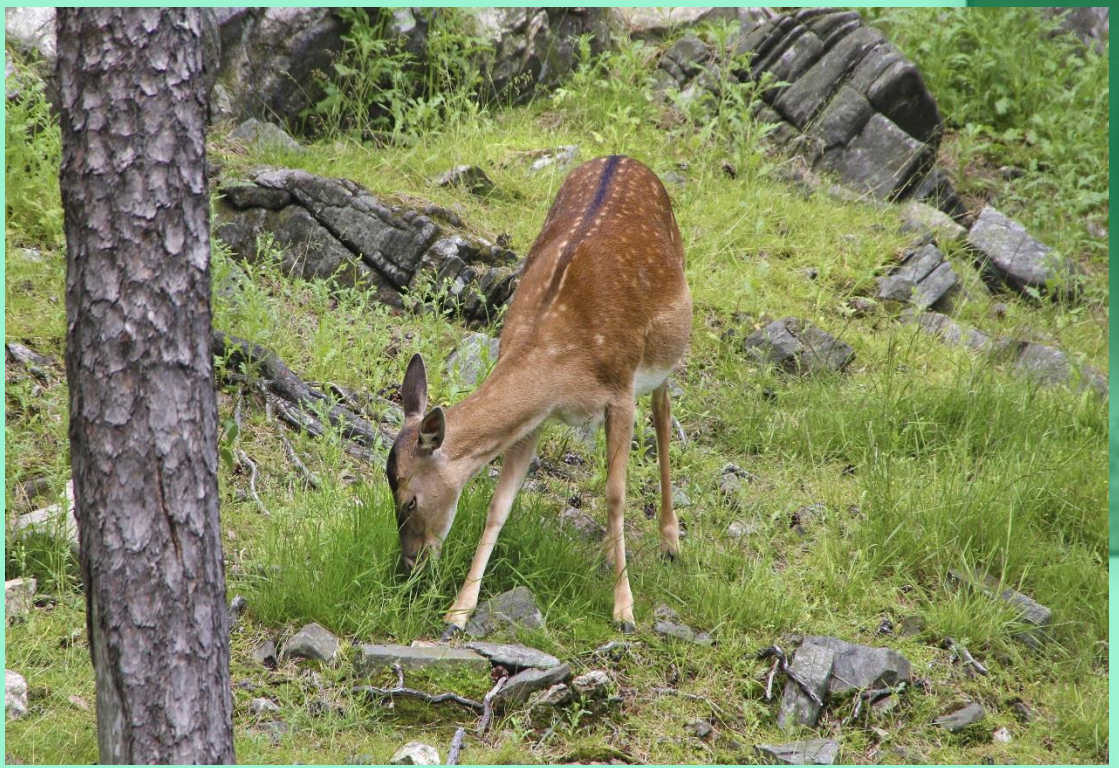
Factors contributing to pain: A super system



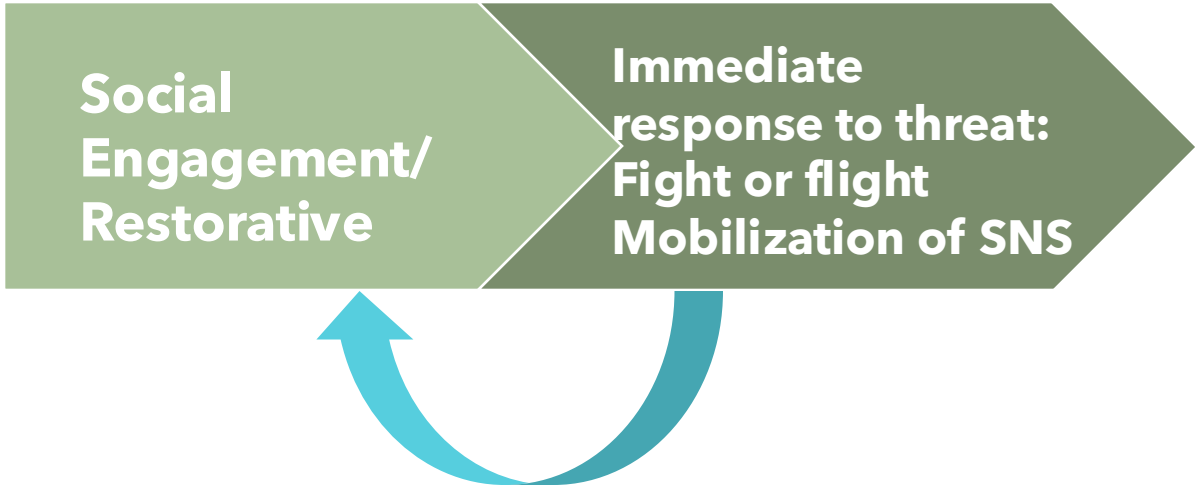
503.913.4828 | nora@knowaboutpain.com | knowaboutpain.com

KnowAboutPain

When emergency response system gets turned on and stays on



Emergency response to threat:



Return to social engagement via activation of PNS and down regulation of SNS

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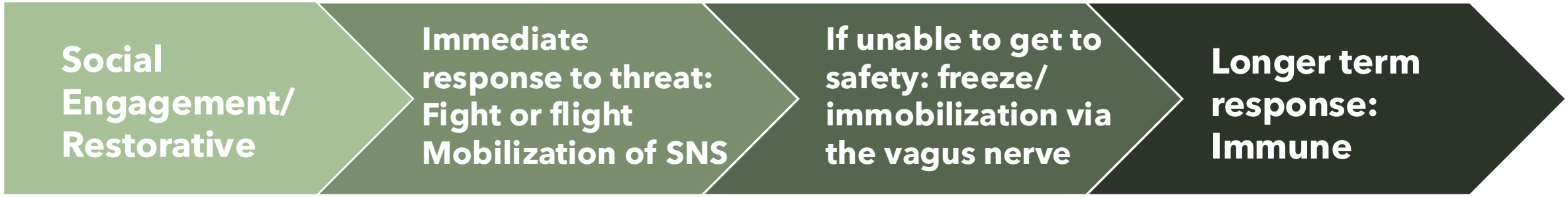
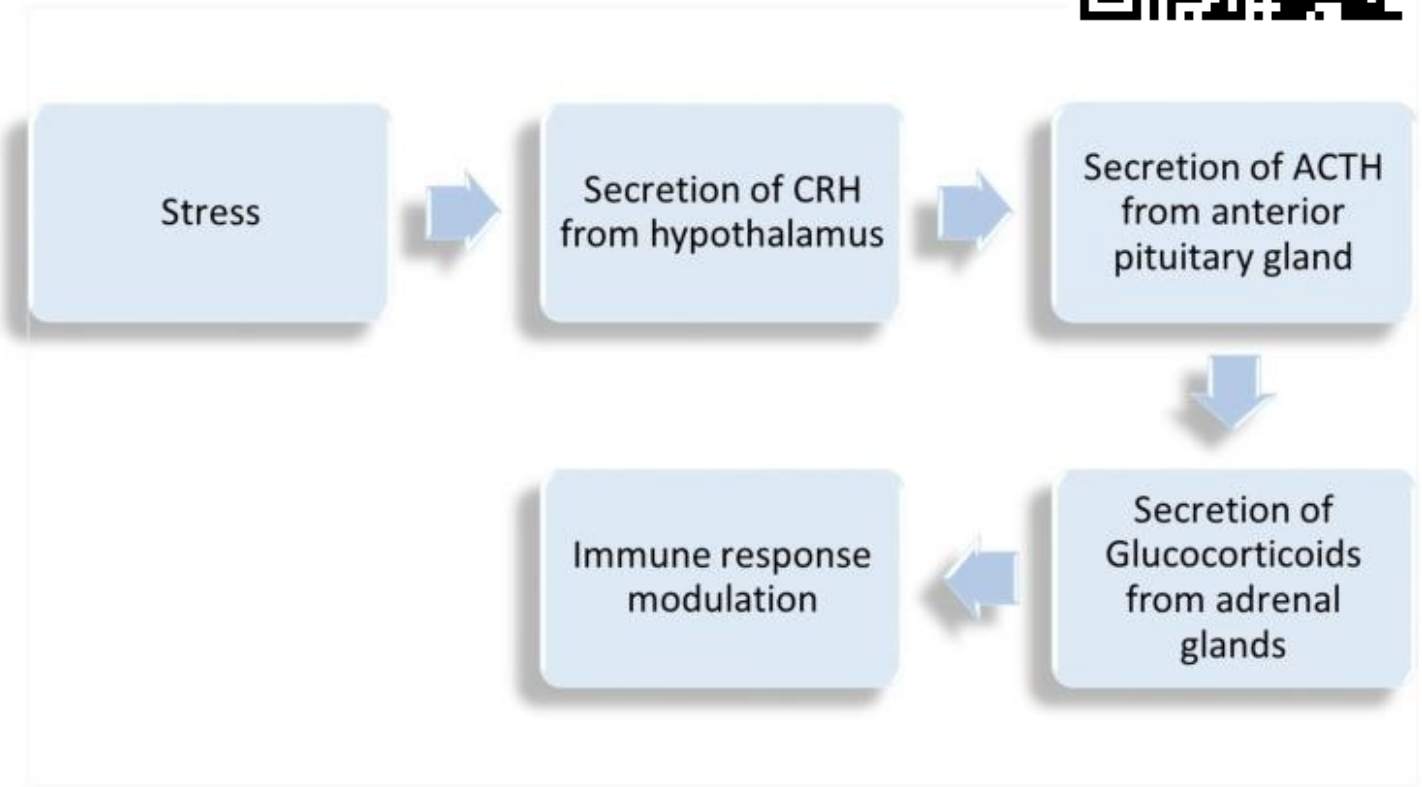
Emergency response to threat:



Proposed FMS (nociplastic pain) Pathogenesis

FMS: fibromyalgia syndrome;
CRH: corticotropin-releasing hormone;

ACTH: adrenocorticotropic hormone.



Khurshid H, Qureshi IA, Jahan N, Went TR, Sultan W, Sapkota A, Alfonso M. A Systematic Review of Fibromyalgia and Recent Advancements in Treatment: Is Medicinal Cannabis a New Hope? Cureus. 2021 Aug 20;13(8):e17332. doi: 10.7759/cureus.17332. PMID: 34567876; PMCID: PMC8451533.

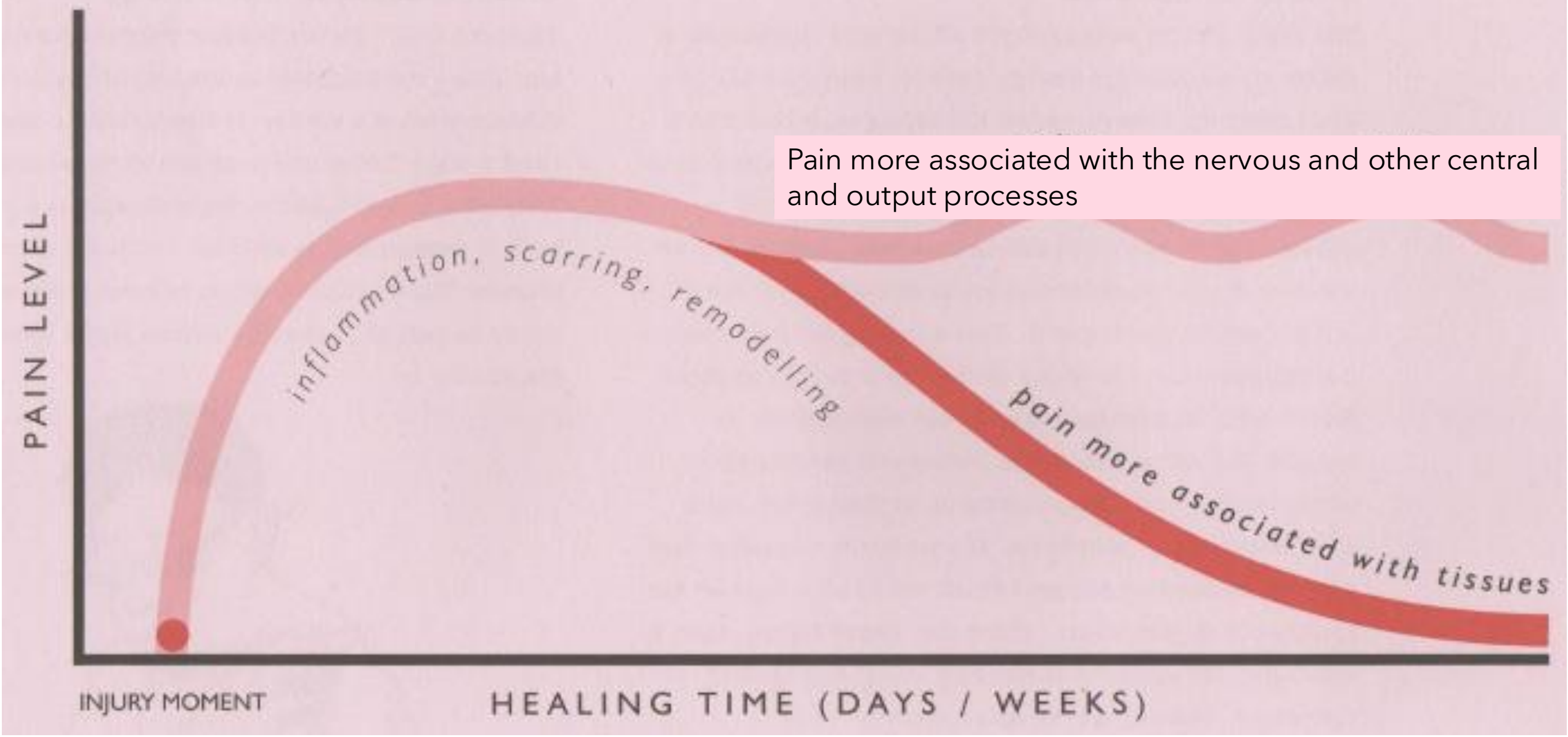
Dorsal vagal: Immobilization/freeze (defensive)

Immobilization:
Inhibition of viscera, slowing of system for survival, decrease HR, breathing

Survival

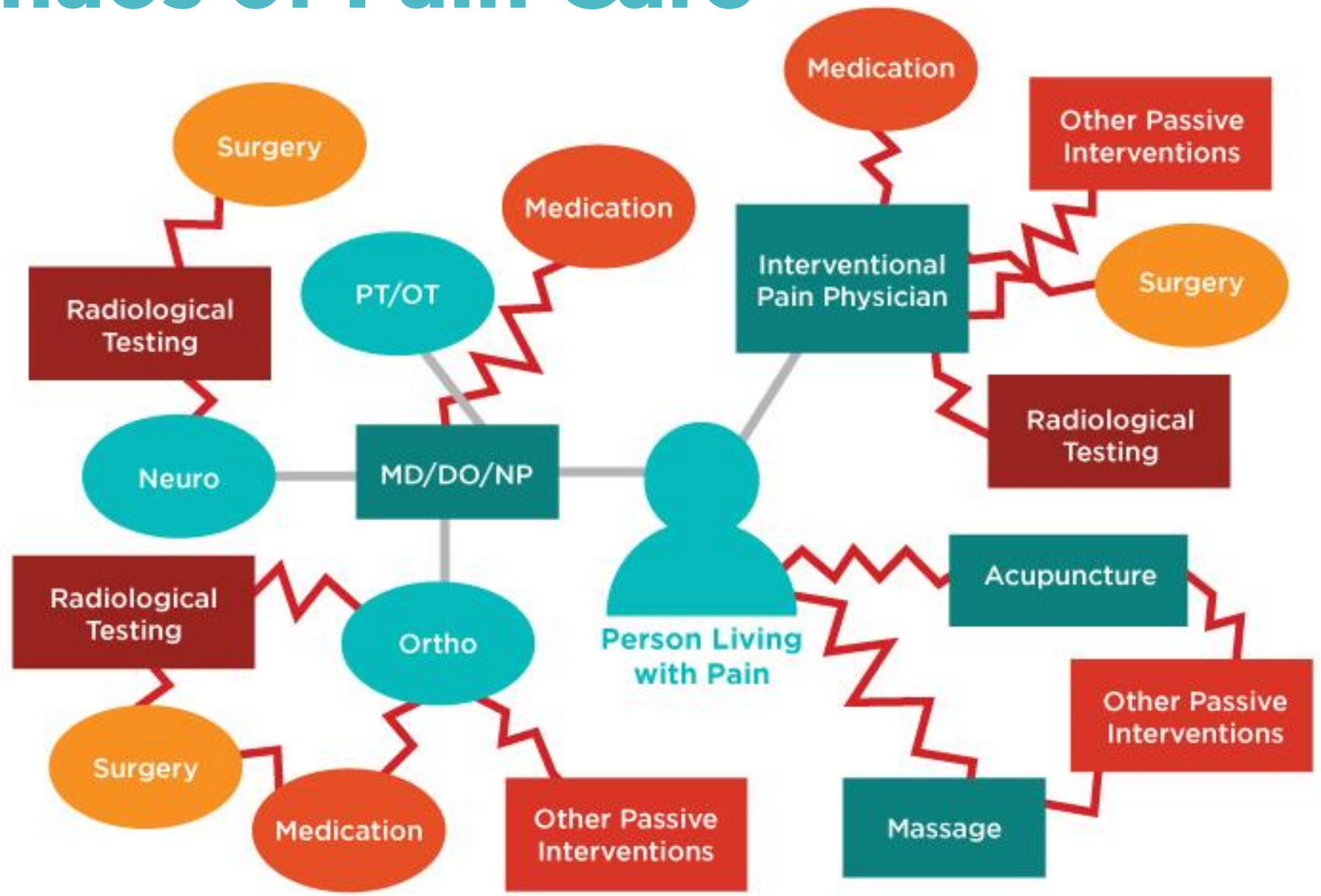
Disembodied, numb, poor ability to read cues or feel safe with people
Poor interoception and poor felt sense

Marlysa B. Sullivan,[1,*] Matt Erb,[2] Laura Schmalzl,[3] Steffany Moonaz,[4] Jessica Noggle Taylor,[5] and Stephen W. Porges[6,] , "Yoga Therapy and Polyvagal Theory: The Convergence of Traditional Wisdom and Contemporary Neuroscience for Self-Regulation and Resilience," Front Hum Neurosci. 2018; 12: 67



Modified from Butler, DB, and Moseley, GL, "Explain Pain," Noigroup Publications, Adelaide, Australia, 2003

The Chaos of Pain Care



Shifting the Conversation and Developing a Care Plan

Armed with this knowledge- how do we approach the patient?

- From fixer to coach
- From solution to process
- From Pain to Function

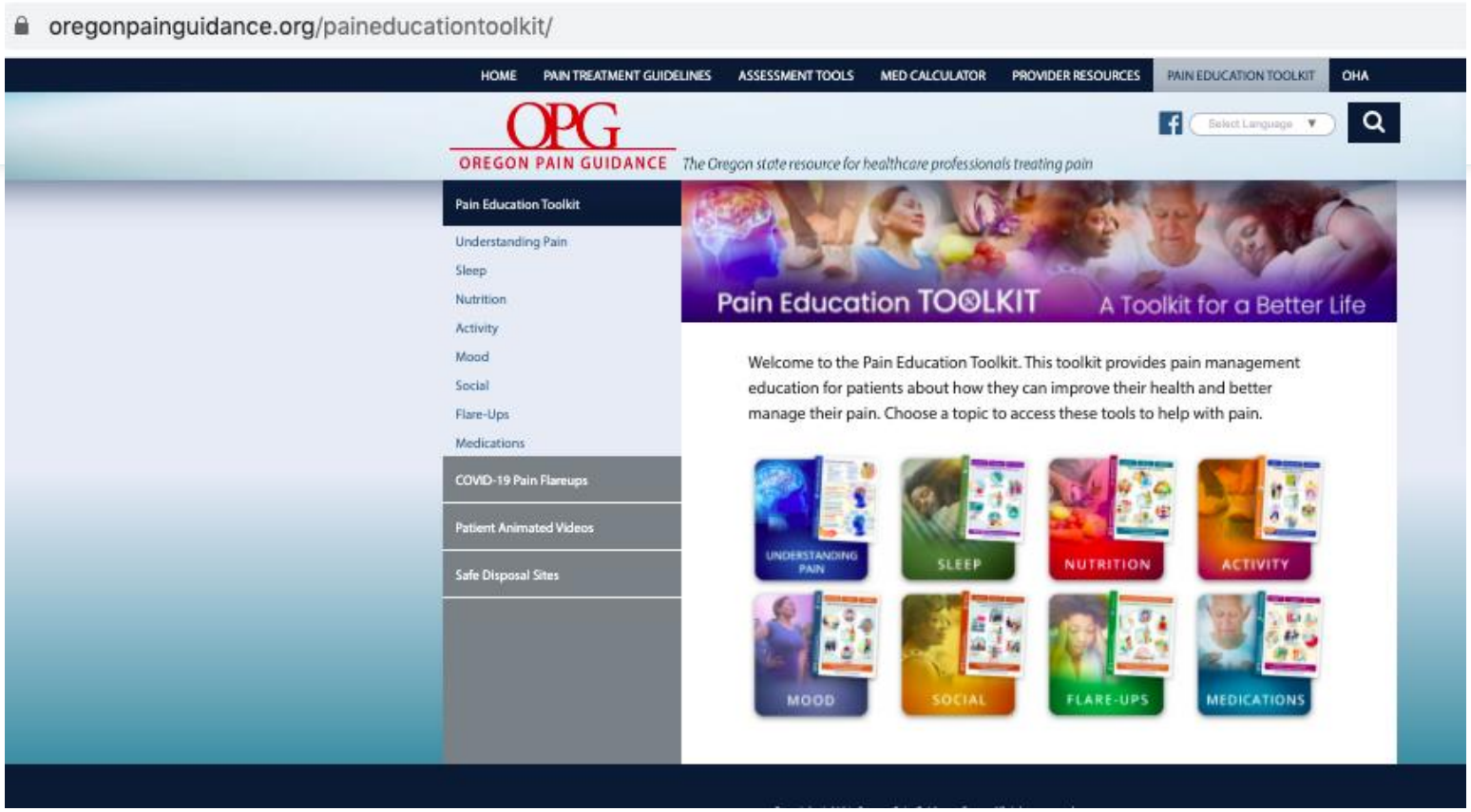
Introductory phrasing

"It sounds like you have been through a lot with your pain. There are things that we know about pain now that are helping a lot of folks. I want to understand the whole picture for you.

If you are willing, I would like to ask you to watch a video that talks about how pain works, and then follow up with you on it.

You may already know everything in the video, but it will help me to understand your pain better and help us make a plan together. Is that ok?"

State Patient Pain Education Resources



Oregon Pain Guidance Resources for Patients, Community and Clinicians

Patient Resource Video About Chronic Pain

HNEHealth, 'Understanding Pain,' YouTube, uploaded by HNEHealth 1/31/16. https://www.youtube.com/watch?v=qEWc2XtaNwg

What Would a History Show to indicate Nociplastic Pain Syndrome?

- Childhood and adolescent symptoms of pain (headache, abdomen, low back)
- General symptoms such as fatigue and cognitive problems
- Hypersensitivity to environmental stimuli (light, sound)
- Psychological symptoms (anxiety, depression)
- Symptoms causing high level of emotional strain
- Family history of chronic pain and mental disorders
- High health care utilization (many doctor visits, surgeries, imaging studies)
- Poor/no response to conventional analgesics (including opioids)

Risk Factors over the Lifespan

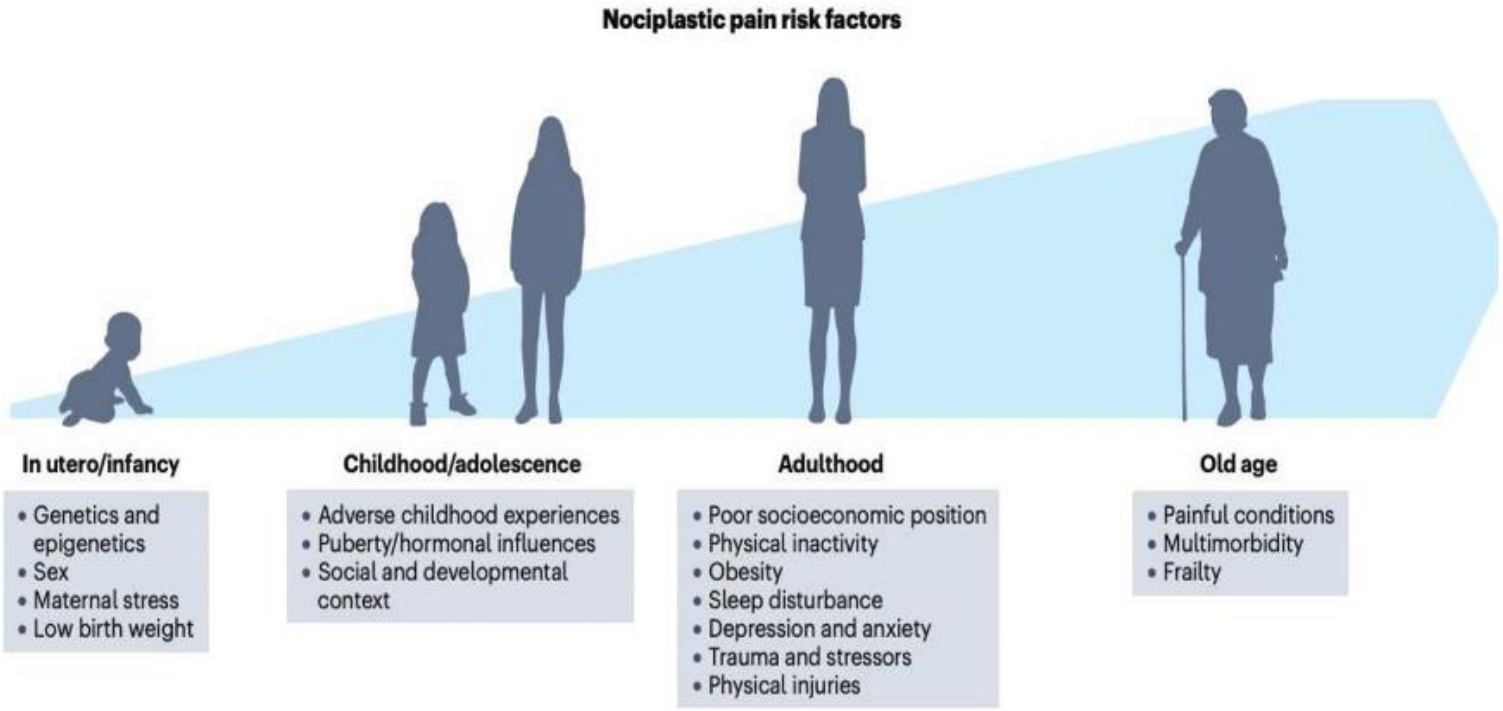
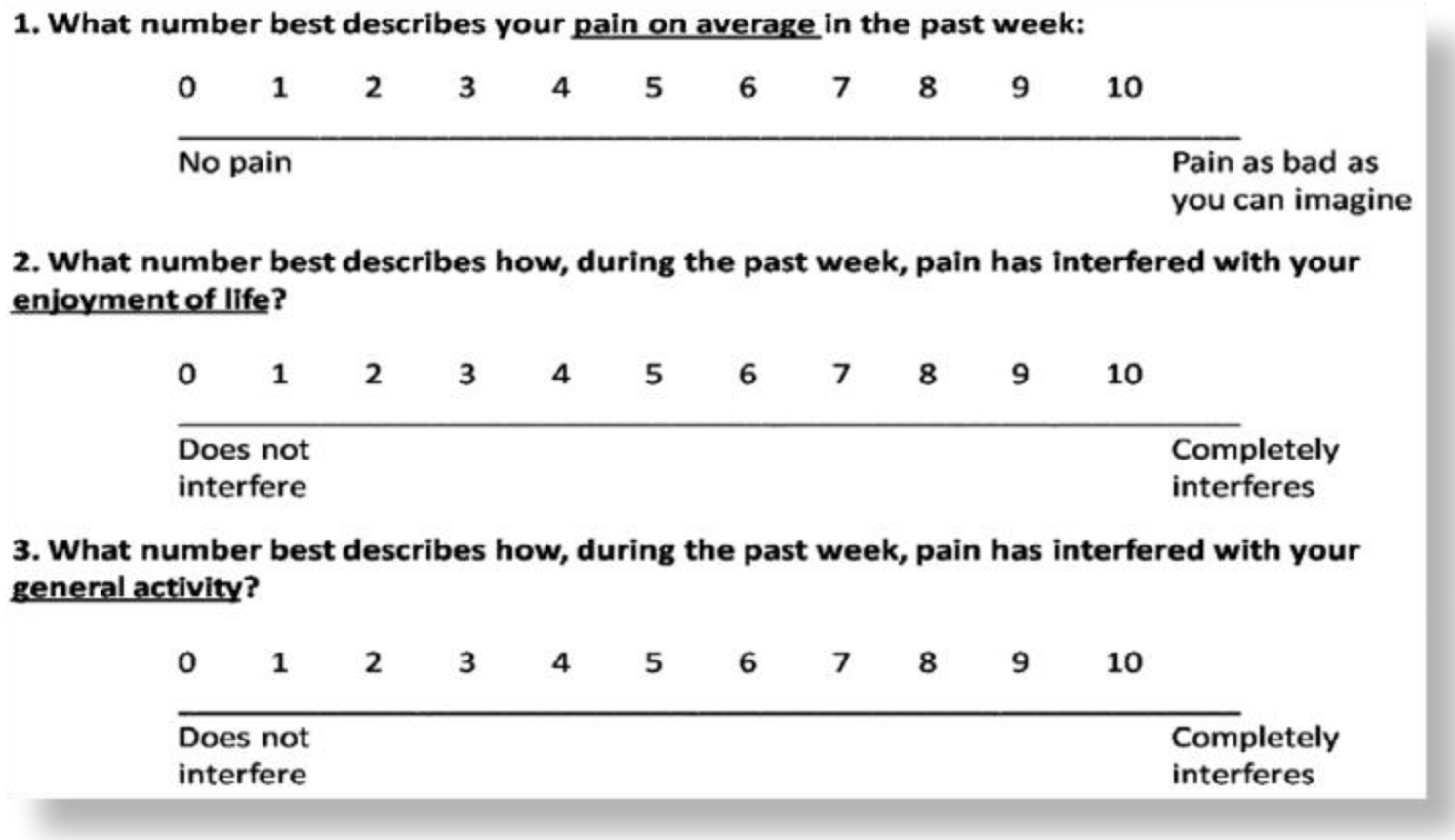


Figure 2 Risk factors for nociplastic pain (from *Nature Reviews Neurology*).

Clauw DJ. *Ann Rheum Dis* 2024;**0**:1–7. doi:10.1136/ard-2023-225327

PEG Tool
Focus the Conversation on Function

- The **P**ain, **E**njoyment of Life, and **G**eneral Activity Scale
- It's in Epic! (Flowsheets)



1. What number best describes your pain on average in the past week:

0 1 2 3 4 5 6 7 8 9 10

No pain — Pain as bad as you can imagine

2. What number best describes how, during the past week, pain has interfered with your enjoyment of life?

0 1 2 3 4 5 6 7 8 9 10

Does not interfere — Completely interferes

3. What number best describes how, during the past week, pain has interfered with your general activity?

0 1 2 3 4 5 6 7 8 9 10

Does not interfere — Completely interferes

(Krebs, 2009)

Five Diagnostic Categories: What to Put on the Problem List…

Chronic pain in ≥1 anatomic regions associated with significant emotional distress or disability that cannot be explained by another chronic pain condition.

- Chronic widespread pain (Fibromyalgia)
- Complex regional pain syndrome
- Chronic primary headache and orofacial pain

Below, these presume nocioceptive processing dysfunction (unlike somatic symptom disorders)

- Chronic primary visceral pain
- Chronic primary musculoskeletal pain
- Coming in ICD-11: *primary pain*[1]

[1]Nicholas M, Vlaeyen JWS, Rief W, Barke A, Aziz Q, Benoliel R, Cohen M, Evers S, Giamberardino MA, Goebel A, Korwisi B, Perrot S, Svensson P, Wang SJ, Treede RD; IASP Taskforce for the Classification of Chronic Pain. The IASP classification of chronic pain for ICD-11: chronic primary pain. Pain. 2019 Jan;160(1):28-37. doi: 10.1097/j.pain.0000000000001390. PMID: 30586068.

Diagnostic Standardization: Fibromyalgia Example

- Created by Clackamas Health Centers by applying existing diagnostic tools
- Removed pain catastrophizing screening questions
- Is one page, easy to use
- Helps start the conversation

OPG
OREGON PAIN GUIDANCE

CLACKAMAS Health Centers

Widespread Pain Index (WPI)

(1 point per check box; score range: 1–19)

Please check the boxes below for each area in which you have had pain or tenderness **during the past 7 days**.

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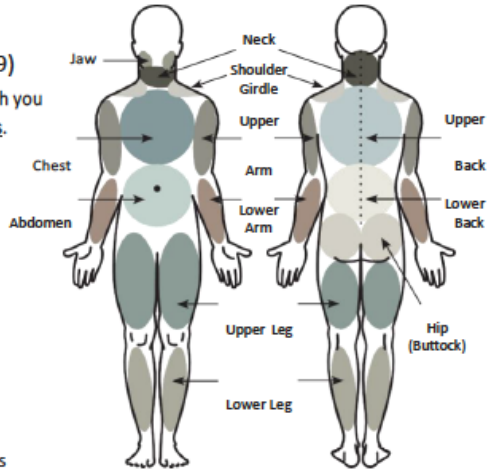
- ☐ Lower leg right
- ☐ Jaw left
- ☐ Jaw right
- ☐ Chest
- ☐ Abdomen
- ☐ Neck
- ☐ Upper back
- ☐ Lower back
- ☐ None of these areas



WPI score:_____

Symptom Severity (score range: 1–12)

For each symptom listed below, use the following scale to indicate the severity of the symptom **during the past 7 days**.

	No problem	Slight or mild problem	Moderate problem	Severe problem
Points	0	1	2	3
A. Fatigue	☐	☐	☐	☐
B. Trougle thinking or remembering	☐	☐	☐	☐
C. Waking up tired (unrefreshed	☐	☐	☐	☐

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

	Points	0	1
A. Pain or cramps in lower abdomen		☐ No	☐ Yes
B. Depression		☐ No	☐ Yes
C. Headache		☐ No	☐ Yes

SS score:_____

Additional criteria (no score)

Have the symptoms listed on this sheet, and widespread pain been present at a similar level for at least 3 months?

☐ No ☐ Yes

TOTAL score:_____

Symptom Severity Score and Total

- Widespread Pain Index

  +

- Symptom Severity Score

- Value on a continuous spectrum
- (Diagnosis of Fibromyalgia or 'pre-FMS/fibromyalgia-ness')

What Your Scores Mean

A patient meets the diagnostic criteria for fibromyalgiaif the following 3 conditions are met:

1a. The WPI score (Part 1) is greater than or equal to 7**AND** the SS score (Part 2a & b) is greater than or equal to 5

OR

1b. The WPI score (Part 1) is from 3 to 6 **AND** the SS score (Part 2a & b) is greater than or equal to 9.

2. Symptoms have been present at a similar level for atleast 3 months.

3. You do not have a disorder that would otherwiseexplain the pain.

For example:

If your WPI (Part 1) was 9 and your SS score (Parts 2a &b) was 6, then you **would meet** the new FM diagnostic criteria.

If your WPI (Part 1) was 5 and your SS score (Parts 2a & b) was 7, then you **would NOT** meet the new FM diagnostic criteria.

*The new FM diagnostic criteria did not specify the number of "Other Symptoms" required to score the point rankings from 0 to 3. Therefore, we estimated the numberof symptoms needed to meet the authors' descriptive categories of:

0 = No symptoms
1 = Few symptoms
2 = A moderate number
3 = A great deal of symptoms

* Wolfe F, et al. Arthritis Care Res DOI 10.1002/acr.20140 [Epub ahead ofprint] February 23, 2010.

For information about Fibromyalgia Network, call our office Monday through Friday, 9:00 a.m. to 5:00 p.m. (PST) at (800) 853-2929 or visit us online at www.fmnetnews.com.

This survey is not meant to substitute for a diagnosis by a medical professional. Patients should not diagnose themselves. Patients should always consult their medical professional for advice and treatment. This survey is intended to give you insight into research on the diagnostic criteria and measurement of symptom severity for fibromyalgia.

[1]Wolfe et. al. *Arthritis Rheum.* Jun 15 2009;61(6):715-716.

Is This a Binary Diagnosis? Enter: Fibromyalgia-***ness***

- Term coined by Wolfe to indicate that the symptoms of FM occur as a continuum in the population rather than being present or absent [1]
- In OA, back pain, and lupus, this is a better predicter of pain level and disability than objective data (imaging, labs)
- The benefit of diagnosing this BEFORE opiates start- consider Prediabetes as an analogy. Or- the tip of the iceberg

Clinical Management:
Implications of Nociplastic Pain

Surgery

Injections

Medications:

NSAIDs,
Opioids ☹

Recommendation	Level of evidence	Grade	Strength of recommendation	Agreement (%)*
Overarching principles				
Optimal management requires prompt diagnosis. Full understanding of fibromyalgia requires comprehensive assessment of pain, function and psychosocial context. It should be recognised as a complex and heterogeneous condition where there is abnormal pain processing and other secondary features. In general, the management of FM should take the form of a graduated approach.	IV	D		100
Management of fibromyalgia should aim at improving health-related quality of life balancing benefit and risk of treatment that often requires a multidisciplinary approach with a combination of non-pharmacological and pharmacological treatment modalities tailored according to pain intensity, function, associated features (such as depression), fatigue, sleep disturbance and patient preferences and comorbidities; by shared decision-making with the patient. Initial management should focus on non-pharmacological therapies.	IV	D		100
Specific recommendations				
Non-pharmacological management				
Aerobic and strengthening exercise	Ia	A	Strong for	100
Cognitive behavioural therapies	Ia	A	Weak for	100
Multicomponent therapies	Ia	A	Weak for	93
Defined physical therapies: acupuncture or hydrotherapy	Ia	A	Weak for	93
Meditative movement therapies (qigong, yoga, tai chi) and mindfulness-based stress reduction	Ia	A	Weak for	71–73
Pharmacological management				
Amitriptyline (at low dose)	Ia	A	Weak for	100
Duloxetine or milnacipran	Ia	A	Weak for	100
Tramadol	Ib	A	Weak for	100
Pregabalin	Ia	A	Weak for	94
Cyclobenzaprine	Ia	A	Weak for	75

*Percentage of working group scoring at least 7 on 0–10 numerical rating scale assessing agreement.

Intervention Review

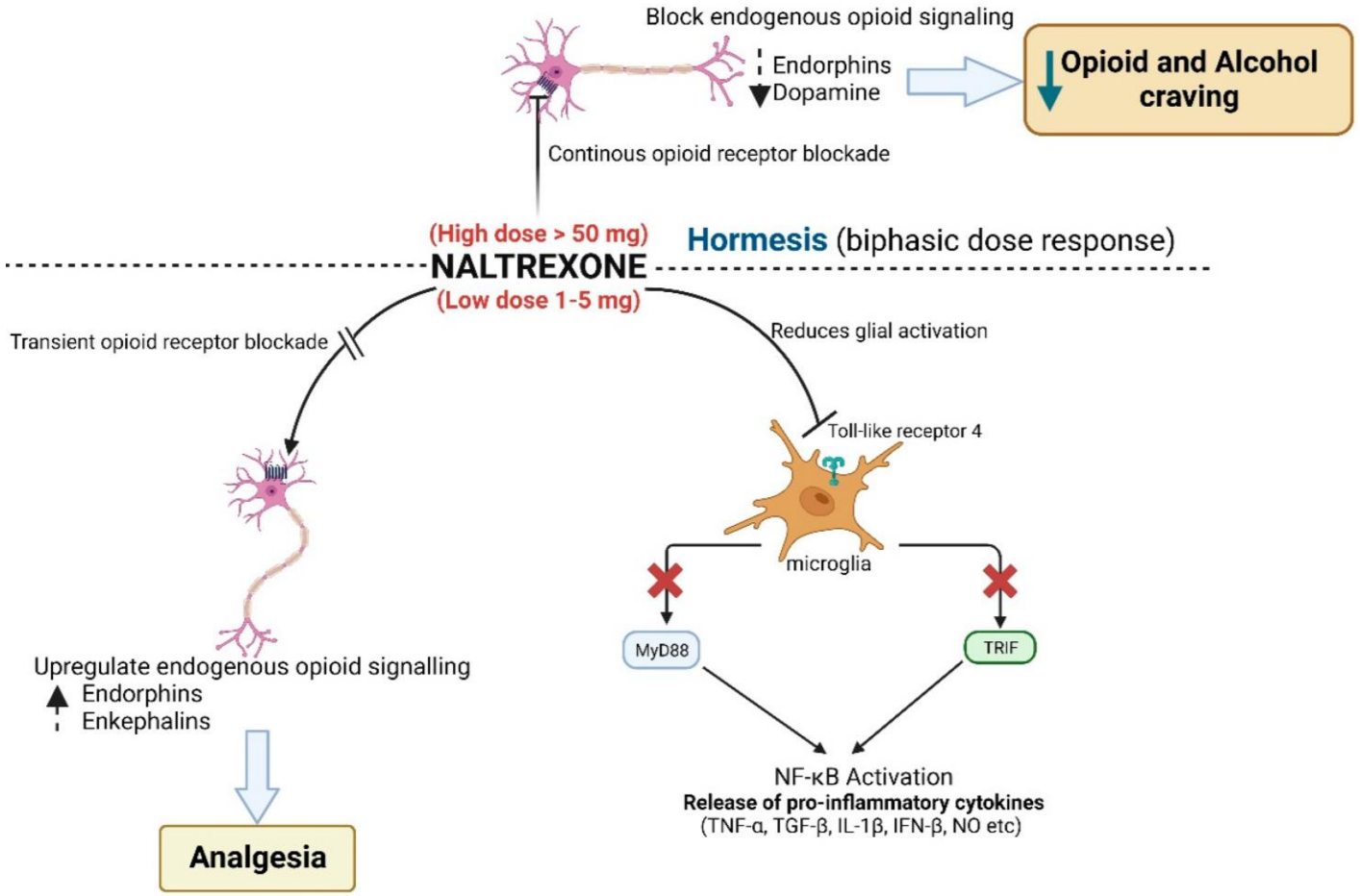
Macfarlane GJ et al. *Ann Rhuem Dis* 2017; **76**: 318-328.

Pharmacologic Choices for Nociplastic Pain

Strong Evidence	▪ Dual reuptake inhibitors such as ▪ Tricyclic compounds (amitriptyline, cyclobenzaprine) ▪ SNRIs and NSRIs (milnacipran, duloxetine) ▪ Gabapentinoids (pregabalin, gabapentin)
Modest Evidence	▪ Tramadol ▪ Older less selective SSRIs ▪ Gamma hydroxybutyrate ▪ Low dose naltrexone ▪ Cannabinoids
Weak Evidence	▪ Growth hormone ▪ 5-hydroxytryptamine ▪ S-adenosyl-L-methionine
No Evidence	▪ Opioids ▪ Corticosteroids ▪ NSAIDs ▪ benzodiazepine and nonbenzodiazepine hypnotics

Clauw DJ, Fibromyalgia: A Clinical Review. *JAMA* 2014 311(15):1547-55

Enter an Unexpected Medication



Naltrexone

- Biphasic dose response at μ-opioid receptor (hormesis):
  - high dose- inhibitor
  - low dose- agonist
- Data is unclear, though some studies are promising, watch this space
- Very easy to make low dose formulation- water soluble

Dara, P.; Farooqui, Z.; Mwale, F.; Choe, C.; van Wijnen, A.J.; Im, H.-J. Opiate Antagonists for Chronic Pain: A Review on the Benefits of Low-Dose Naltrexone in Arthritis versus Non-Arthritic Diseases. Biomedicines 2023, 11, 1620. https://doi.org/10.3390/biomedicines11061620

Cannabis for Chronic Pain

- It Depends. Stronger evidence for synthetic products.
- THC:CBD ratio key (> THC = more effect)
- Real Side effects:
  - Dizziness, psychiatric risk, cognitive impacts, hyperemesis
- Conclusion:
  - More study needed

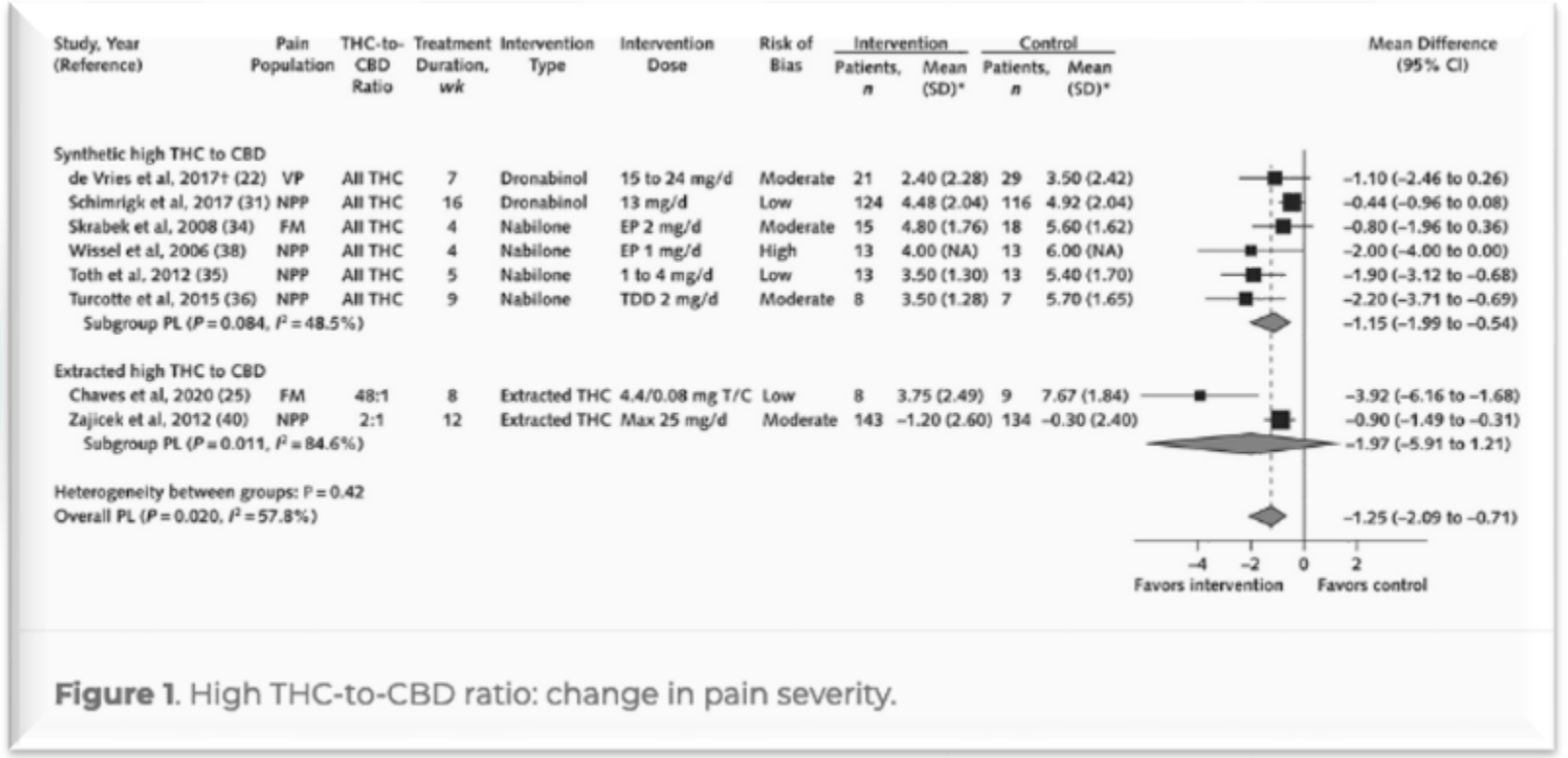


Figure 1. High THC-to-CBD ratio: change in pain severity.

McDonagh MS, Morasco BJ, Wagner J, Ahmed AY, Fu R, Kansagara D, Chou R. Cannabis-Based Products for Chronic Pain : A Systematic Review. Ann Intern Med. 2022 Aug;175(8):1143-1153. doi: 10.7326/M21-4520. Epub 2022 Jun 7. PMID: 35667066.

What a PCP can do:

- Ground yourself
- Consistent messaging across care continuum and team:

- Ensure that active interventions are part of the plan (through PT, BH)
  - Simple home activities or walking program
  - Pain-informed PT
  - Pain education
  - Behavioral health
  - Mindfulness
  - Trauma-informed yoga
  - Increasing socializing

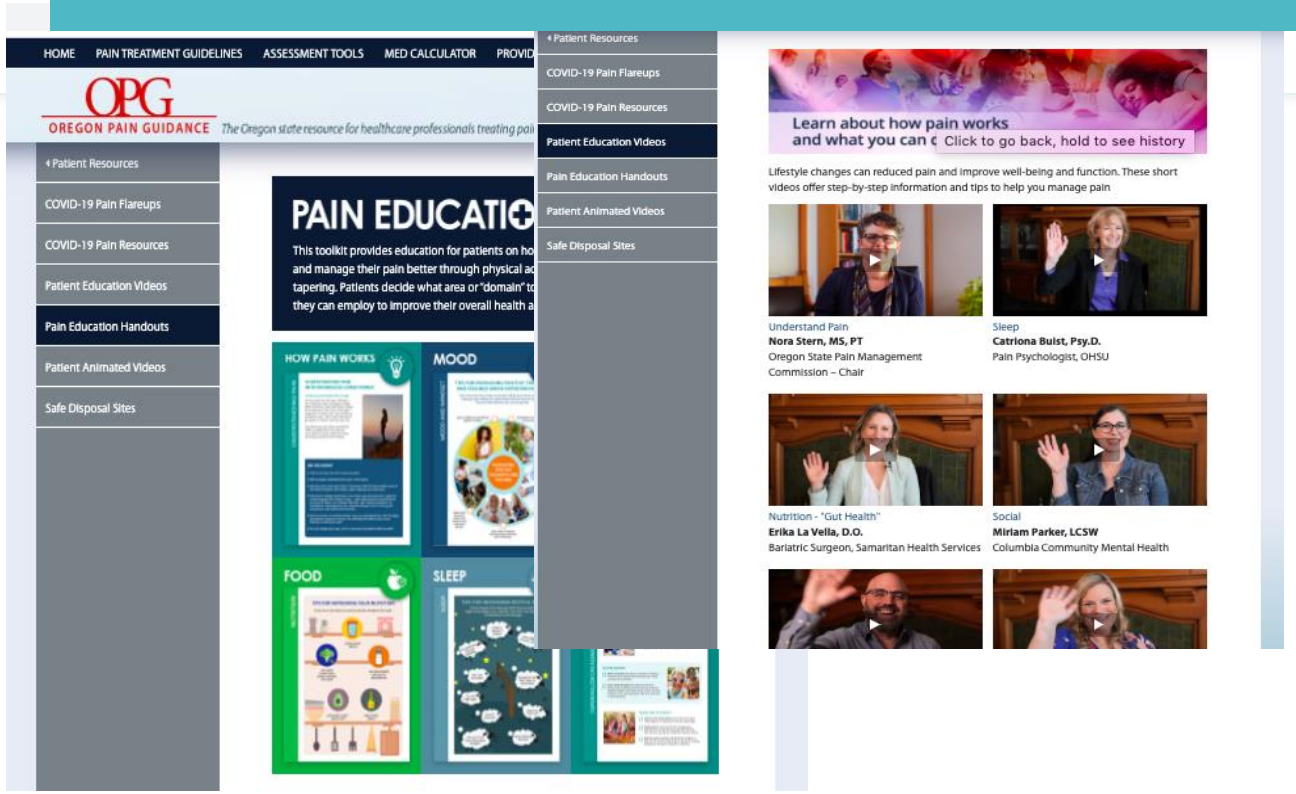
Understanding Pain
Key phrases

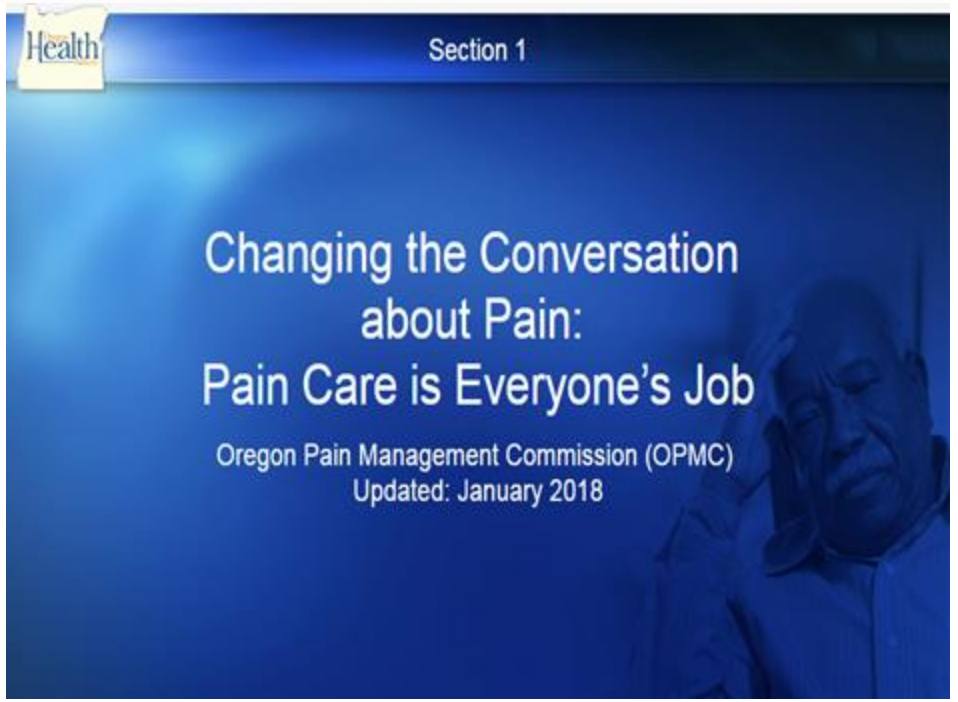
- Your pain is very real
- Your pain can change
- There are many things that contribute to pain and many ways to help pain improve. No pain is a result of bodily injury alone.
- Rewiring the brain to change pain involves things that YOU do actively, rather than things that are done to you passively.
- Motion is lotion
- Start low, go slow, keep going.
- Sore but safe.
- PAIN ≠ HARM

Possible Team Roles using tools

Team Member	Workflow
Primary Care Provider:	Phrasing and introduction of video Follow-up reinforcement of care plan
Case Manager/MA/Peer Support:	Set up with video and handout
Integrated BH/PT:	Follow-up on video Use Shared Decision-making tool to explore plan of care

State Pain Education Resources





Oregon Pain Guidance Resources for Patients, Community and Clinicians

OPMC Changing the Conversation About Pain

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Thank You and Questions