



Chronic Pain & Addiction

EVAN ESPINOSA, PSY. D.

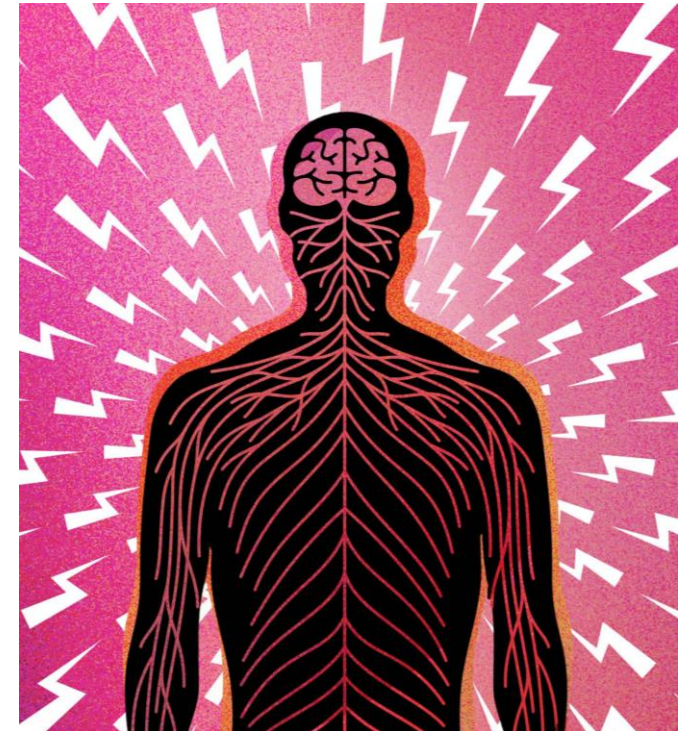
What is Pain?

Pain is a complex experience that differs greatly from person to person, even between those with similar injuries and/or illnesses.

Pain can be very mild, almost unnoticeable, or explosive. You may experience pain as pricking, tingling, stinging, burning, shooting, aching, or electric sensations.

Pain warns you that something is not quite right in your body and can cause you to take certain actions and avoid others.

Pain can significantly impact your quality of life—by adversely affecting your physical and emotional well-being; upsetting relationships with family, coworkers, and friends; and limiting your mobility and participation in daily activities.



What is Chronic Pain?

In researching chronic pain, it is widely agreed upon as:

- Persistent or recurrent pain lasting longer than 3 months
- The severity of pain can be rated in terms of intensity, pain-related distress, and functional impairment.
- Can present without any history of an injury or operation

Why is chronic Pain tricky to define?

- Subjective Reporting
- Personal experience with pain makes it different for everyone



Who Can Experience Chronic Pain

Age

- All ages groups are susceptible to chronic pain.
- Chronic Pain is positively correlated with age.
- Chronic pain is particularly common and problematic in older adults (\geq age65) where it is associated with significant suffering, social isolation, disability, and greater costs and burden to health care systems.
- Pharmaceutical treatment of chronic pain in older adults is usually only partially effective and is often limited by side effects.
- Chronic pain in childhood is common. In epidemiological surveys, the median prevalence of chronic pain reported in community samples of children and adolescents is 11 to 38 percent. (Huguet, A., & Miro, J. (2008))



Who Can Experience Chronic Pain

All genders are susceptible to chronic pain

- In modern studies performed on both sexes, women are not only more likely to suffer from chronic pain—70% of people with chronic pain issues are women.
- Women also feel pain more often, for longer periods, in more areas, and even more intensely. (Pain Institute).
- Men and women differ in their responses to pain, with increased pain sensitivity and risk for clinical pain commonly being observed among women.
- Also, differences in responsivity to pharmacological and non-pharmacological pain interventions have been observed; however, these effects are not always consistent and appear dependent on treatment type and characteristics of both the pain and the provider.

(National Health Institute)



Who Can Experience Chronic Pain?

Cultural Influences

- Evidence supports the idea that culture can influence many pain-related factors, including but not limited to:
 - how an individual communicates pain
 - an individual's emotional responses to someone else's pain (empathy)
 - pain intensity and tolerance
 - beliefs about and coping with pain
 - pain catastrophizing.
- Across studies, African-Americans are found to report the highest level of chronic pain.
- Hispanic/Latin population consistently report higher levels of chronic Pain compared to non-Hispanics whites.



Common Diagnoses Associated With Chronic Pain

Autoimmune Disease

Cancer

Rheumatoid Arthritis

Fibromyalgia

Degenerative Diseases

HIV/AIDS

Ligament Damage

Muscular/Skeletal Issues

Diabetes

Phantom Pain

Trauma

Wear and Tear

Viruses

Genetic

Liver Disease

Kidney Disease

Headaches

Nerve Pain

Any others you can think of?

Where Does Addiction Fit In?

Many routes of intervention for this population.

Acute vs. Chronic interventions

Acute

- Surgeries
- Short term medications
- Physical Therapy

Chronic

- Long term medications
- Chronic pain focused surgeries
- Opiate-based pain relief
- Self driven pain relief (The increase of illicit or prescribed substance use as chronic pain increases (alcohol, benzodiazepines, Cannabis, etc.).



The Problem With Long Term Opioid Use

Central Sensitization

- a pathophysiologic process in which the central nervous system undergoes changes that alter its processing of pain and other sensory stimuli. (Cleveland Clinic)
- hypersensitivity to stimuli from things that are not typically painful. (Cleveland Clinic)

Hyperalgesia

- An increased sensitivity to feeling pain and an extreme response to pain.
- a symptom where you feel pain in situations where feeling it is normal, but the pain is much more severe. (Cleveland Clinic)

Physical Dependence (up to 10x the starting dose)

Opioid Epidemic

Addiction

Cultural Implications

THE OPIOID EPIDEMIC BY THE NUMBERS



70,630
people died from drug overdose in 2019²



10.1 million
people misused prescription opioids in the past year¹



1.6 million
people had an opioid use disorder in the past year¹



2 million
people used methamphetamine in the past year¹



745,000
people used heroin in the past year¹



50,000
people used heroin for the first time¹



1.6 million
people misused prescription pain relievers for the first time¹



14,480
deaths attributed to overdosing on heroin (in 12-month period ending June 2020)¹



48,006
deaths attributed to overdosing on synthetic opioids other than methadone (in 12-month period ending June 2020)²

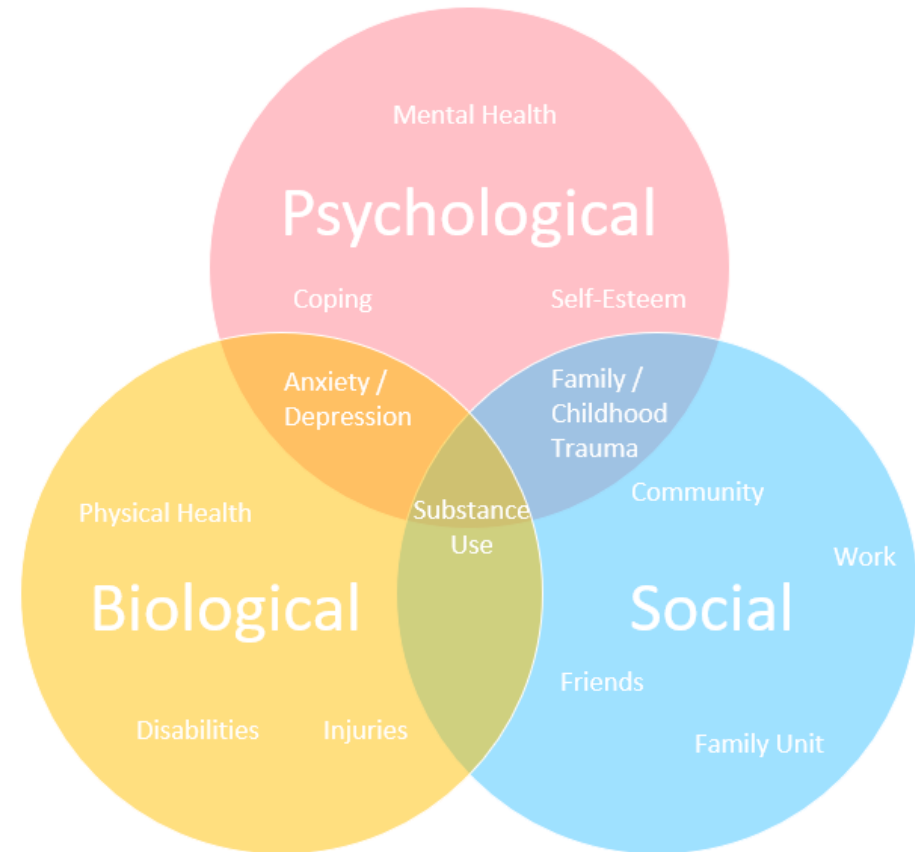
SOURCES

1. 2019 National Survey on Drug Use and Health, 2020.
2. NCHS Data Brief No. 394, December 2020.
3. NCHS, National Vital Statistics System. Provisional drug overdose death counts.

Treatment

Do opioids really help a person restore function?

- **Meaning?**
 - Connection to behaviors that offer psychological benefit
- **Purpose?**
 - A reason for continuing to give effort
- **Function?**
 - Overall increase in life activities



Treatment

The Biopsychosocial Approach

- Very strong supported evidence for MBSR and CBT for Chronic Pain
- Behavioral modification to promote better self-care
- Continued medical support with appropriate interventions
- Detoxification
- Chronic Pain focused PT
- What if these all came together?

Psychoeducation and new ways of looking at Chronic Pain...



A New Approach

Neuro Orthopedic Institute (NOI)

- Australia based institute turned international
- 30 years, over 100 seminars across the world per year
- Team of physical therapists with a multidisciplinary audience
- Dedicated to 'quality education and resource distribution'
- Biopsychosocial approach; psychological/social environments paired with the biology of pain, stress and performance
- Treatment includes emphasis on psychoeducation and management of physiology of the nervous system *focus on neuroplasticity



Neuro Orthopaedic Institute

A New Approach

Neuro Orthopedic Institute

1. Injury or disease does not mean that you feel pain
2. The nervous system moves and stretches as we move
3. Pain, stress and performance are outputs of the brain
4. Knowledge and movement are the greatest pain and stress liberators
5. Nervous system plasticity gives new hope and technique

Explain Pain

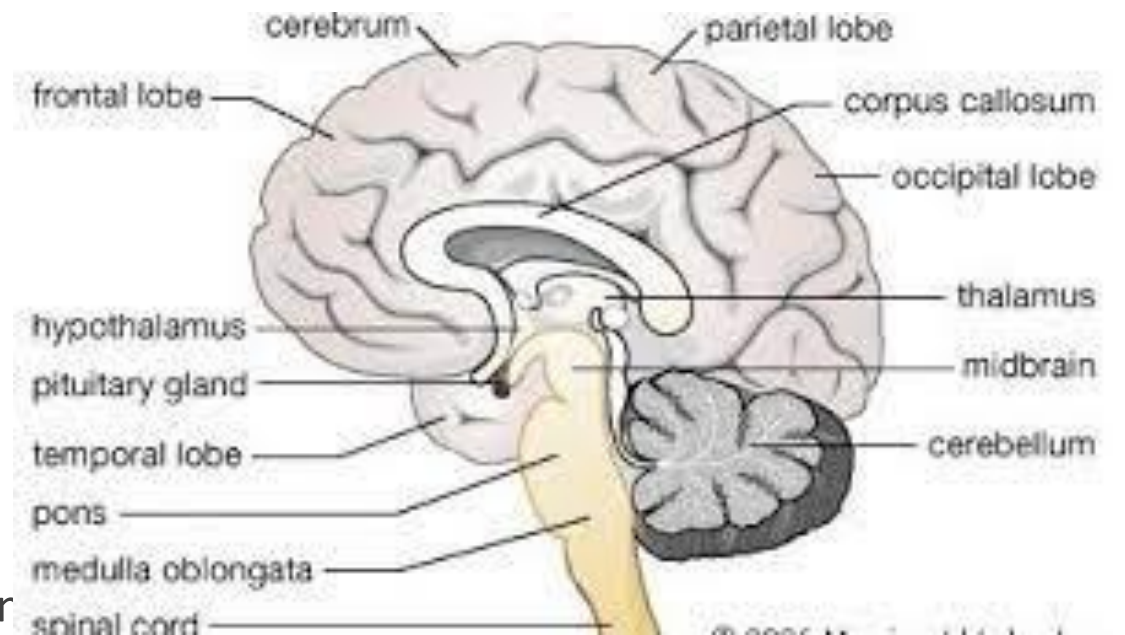
1. Pain is normal, personal and always real.
2. There are danger sensors, not pain sensors.
3. pain and tissue damage rarely relate.
4. pain depends on the balance of safety and danger.
5. pain involves distributed brain activity.
6. pain relies on context.
7. pain is one many protective outputs.
8. we are bioplastic.
9. learning about pain can help the individual and society.
10. active treatment strategies promote recovery.

Explain Pain

Basically: how you think about your pain impacts the way you feel; you can have pain without any physical stimuli

Your nervous system may be 'learning' pain if:
it's hard to move regularly
you're more sensitive to things
your pain changes quickly with your mood
your pain spreads or comes on without warning

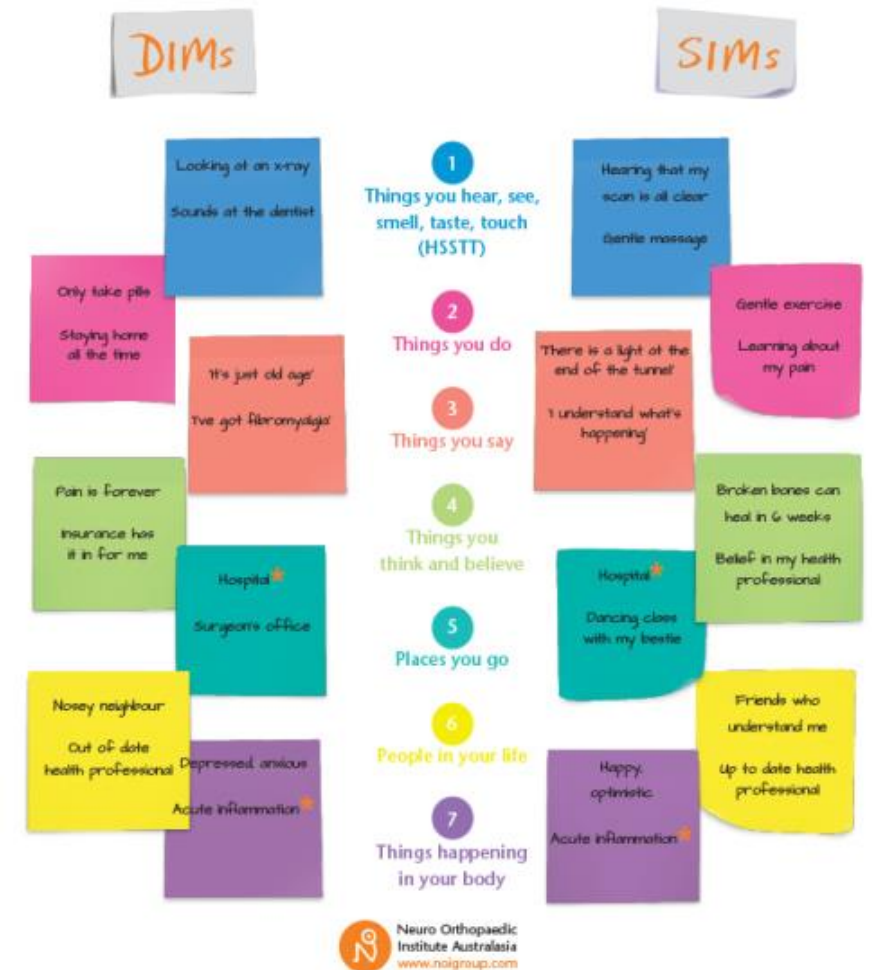
Pain reduction can be achieved by:
moving more often than normal
being honest about how you're feeling
buying into the treatment process and asking question



Explain Pain

Brain Smudging

- If the brain makes the conclusion that more protection is needed for a part of the body, it calls on additional cells to assist. This can be helpful short term, but long term it can lead to difficulty recognizing a difference between body parts or feeling as though a body part is not connected to you.



Integrated Care Model

- Treatment from a biopsychosocial & mind-body perspective
- Team of multidisciplinary professionals under the same roof
 - Behavioral health (1 on 1 and group counseling, psychosocial education, behavioral modules, EMDR, biofeedback)
 - *Physical therapy (Central Nervous System, neuroplasticity, functional yoga, tai chi, and skills on retraining the pain system, nutrition education)*
 - *Medical Support (With or without Medication Assisted Treatment)*
- Coordination of care between all our providers to ensure a truly comprehensive approach to treatment
- Evidence-based curriculum & modules for each patient to help them reach their goals safely



Physical Therapy for Chronic Pain

Reduction in passive treatment

- Focus on Pt's active involvement in their PT
- Minimal modalities
- Manual treatment is not central focus

Central nervous system calming

- Education on difference between SNS and PNS
- Diaphragmatic breathing + CNS calming exercises

Pain science education

- NOI
 - Pain is a protector
 - All pain is real
 - Danger sensors, not pain sensors
 - DIMS and SIMS
- When you understand why you hurt, you hurt less



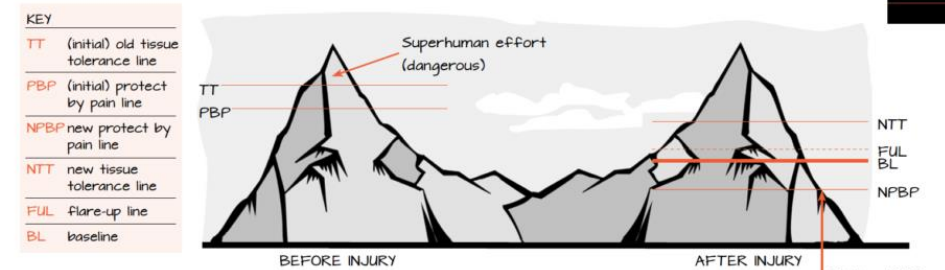
Physical Therapy for Chronic Pain

Learning safety in movement

- NOI mountain

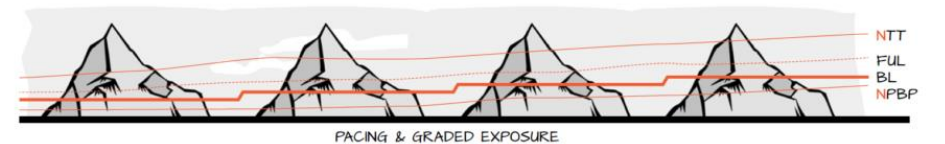
Graded Motor Imagery

- Brain-based treatment targeting the activation of different brain regions in a graded manner
- 3 stages
- Left/right discrimination, explicit motor imagery, mirror therapy



And now plan your 'training'. Let's walk through the first of the small mountains in the figure below.

- A.** Starting below the flare-up line, gradually increase your activity, planning steps in advance: **'always do more than you did yesterday, but not much more'**.
- B.** The flare-up line will slowly lift along with your training level. This is because you are training your brain, reducing the perceived threat, accessing the virtual body in a non-threatening way.
- C.** The protect by pain line will slowly lift – the sensitivity of the system reduces.
- D.** The tissue tolerance line will also lift – this is one of the beautiful properties of highly adaptable beings – the tissues get stronger, fitter and better controlled.



Substance Abuse for Chronic Pain

Opioids

- Suboxone induction and maintenance, naltrexone, Vivitrol
- Withdrawal management using comfort medications as needed
- Suboxone micro dosing in challenging cases

Alcohol

- Naltrexone, Vivitrol, acamprosate, Antabuse
- Management of minor withdrawal
- Potential for serious withdrawal will require inpatient detox prior to start of program

Benzodiazepines

- Tapering with Valium, Ativan, or Klonopin

Others

- Stimulants, THC, hallucinogens, synthetics, kratom

✓ **Social Use**

✓ **Abuse**

✓ **Dependence**

Behavioral Health for Chronic Pain

Psychoeducation on NOI principles

Motivational Interviewing

Mindfulness Based Stress Reduction

CBT (ACT, DBT, CT, BT)



Effectiveness of an Integrated Model

FUNCTION = 99.52% reported function improved by an avg of 77.17%

- Patient Specific Functional Scale (PT), n=421
- **Increased function means better quality of life, repaired relationships, lower health care costs/utilization**

PAIN = 83.19% reported a reduction in pain of 60.25%

- Pain Disability Index (PT), n=336 Visual Analog Scale (PT), n=403 Pain Scale (Med), n=344

MENTAL HEALTH = 80.35% reported improvement in their mental health of 61.91%

- CIEQ-I (BH), n=460 CIEQ-C (BH), n=451 PHQ-9 (BH), n=463 FFQ-Fear (BH), n=436 FFQ-Fatigue (BH), n=435

MONTHLY MORPHINE EQUIVALENT = 71.05% Had a Reduction in MME by an average of 85.97%. 70.90% achieved an MME of 0

- MME (Med), n=76

Questions?



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Behavioral Health Awareness Series

If you are an Evernorth or Cigna customer and have questions about Substance Use treatment or about your benefits and how to use them, please contact:

Stephanie Gissal - 800.274.7603 x398516

Wanda Russell – 800.274.7603 x342063

Kari Mack – 800.274.7603 x1034994

Jordan Nielsen – 800.274.7603 x382620