



Seeing the Whole Person with Chronic Pain

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21 July 2020 – Broadcasting from San Antonio



Attendance Code

To obtain CPE credit for this activity, you are required to actively participate in this session. You will need this attendance code in order to access the evaluation and CPE form for this activity. Your CPE must be filed by **21 October 2020** in order to receive credit.



CPE Information and Disclosures

I, David W. Bobb “declare no conflicts of interest, real or apparent, and no financial interests in any company, product, or service mentioned in this program, including grants, employment, gifts, stock holdings, and honoraria.”



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CPE Information

Target Audience: Pharmacists and Pharmacy Technicians

ACPE#:

0575-0000-20-093-L08-P

0575-0000-20-093-L08-T

Activity Type: Knowledge [Pain Management]



Learning Objectives

At the conclusion of this activity, participants will be able to:

1. Understand DHA intent on treatment of pain
2. Articulate the problems with the pain reduction model
3. Gain an introductory understanding of Pain Neuroscience Education
4. Consider how to get more involved in helping patients in an interdisciplinary approach

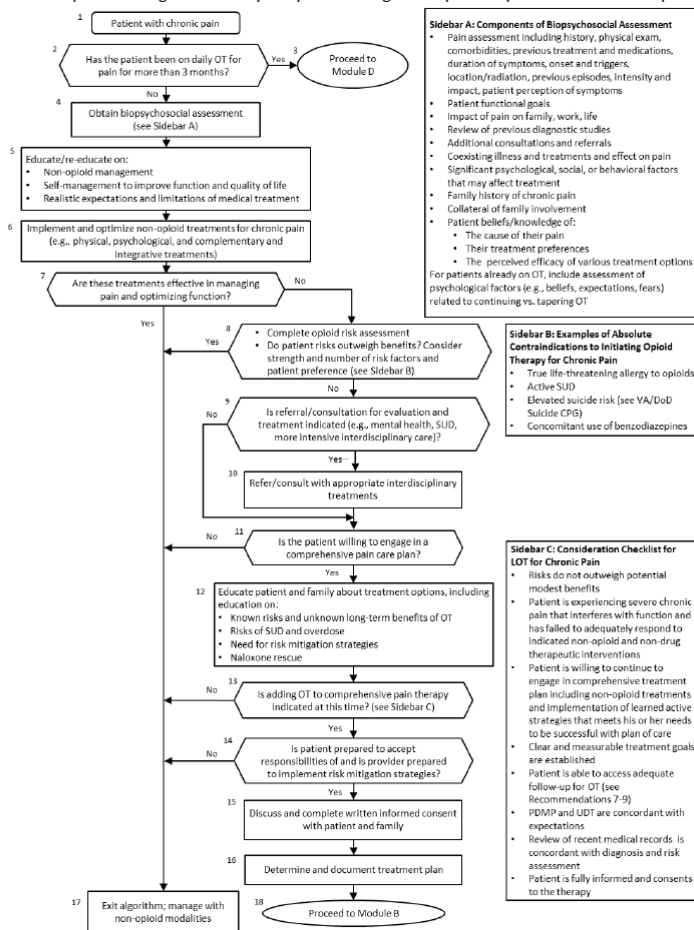


VA/DoD Clinical Practice Guideline for Opioid Therapy for Chronic Pain, 2017



II. Module A: Determination of Appropriateness for Opioid Therapy

Note: Non-pharmacologic and non-opioid pharmacologic therapies are preferred for chronic pain.



Abbreviations: LOT: long-term opioid therapy; OT: opioid therapy; PDMP: Prescription Drug Monitoring Program; SUD: substance use disorders; UDT: urine drug test; VA/DoD Suicide CPG: VA/DoD Clinical Practice Guideline for the Assessment and Management of Patients at Risk for Suicide

I. Summary of Recommendations

Recommendations were made using a systematic approach considering multiple domains: the confidence in the quality of the evidence, balance of desirable and undesirable outcomes, patient or provider values and preferences, and other implications, as appropriate (e.g., resource use, equity, acceptability).

For the treatment of chronic pain

We recommend:

Alternatives to opioid therapy (OT) such as self-management strategies, other non-pharmacological treatments, and, when pharmacologic therapies are used, non-opioids over opioids

We recommend against:

Initiating long-term opioid therapy (LOT) for chronic pain, particularly in the following patient populations due to increased risk of adverse events with OT: untreated substance use disorder (SUD), concurrent benzodiazepine use, less than 30 years of age



DHA-PI 6025.04

Pain Management and Opioid Safety in the Military Health System (MHS)

CLINICAL OPERATIONS.

d. Opioid Prescribing Guidance

(1) For uncomplicated, opioid-naïve patients, all prescribing providers should limit opioid prescriptions to no more than a 5-day supply of short-acting opioids for acute pain episodes, including postoperative pain from minor outpatient procedures. These patients should rarely require renewals of opioid medications; if renewals are given, they should be limited to a 3-day supply and occur only after clinical re-evaluation and documentation in the electronic health record (EHR).



DHA-PI 6025.04

Pain Management and Opioid Safety in the Military Health System (MHS)

CLINICAL OPERATIONS.

d. Opioid Prescribing Guidance

(4) For patients with postoperative pain from major procedures, all prescribing providers should limit opioid prescriptions to no more than a 10-day supply of short-acting opioids. All patients requiring opioids after major procedures should receive an informed consent with information about the risks of opioids. Renewals may be required depending on the situation. They should be given only if needed after surgical re-evaluation and should not exceed a 7-day supply.



DHA-PI 6025.04

Pain Management and Opioid Safety in the Military Health System (MHS)

CLINICAL OPERATIONS.

d. Opioid Prescribing Guidance

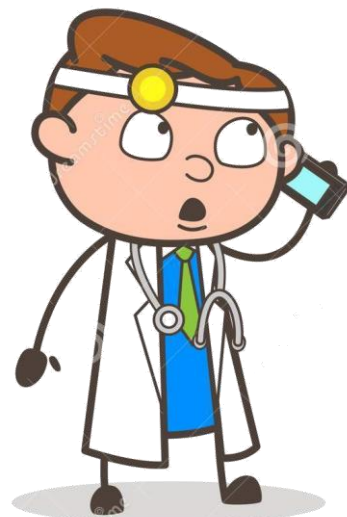
MTF clinicians shall use non-pharmacologic treatments (to include but not limited to acupuncture, chiropractic care, physical therapy, behavioral health treatments) of pain as clinically appropriate. Clinicians may provide or refer for non-pharmacologic treatments not listed here. They will understand what non-pharmacologic pain treatment modalities are available locally. Some non-pharmacologic treatments are not available at every MTF.



Same Page



https://www.freepik.com/premium-vector/pharmacist-pharmacy_4023281.htm



<https://www.dreamstime.com/cartoon-doctor-discussing-client-phone-vector-illustration-design-cartoon-doctor-discussing-client-phone-vector-image103590792>



<https://shop.nybooks.com/products/sigmund-freud-1967>



CDC Guidance

Use nonopioid therapies to the extent possible

Identify and address co-existing mental health conditions (e.g., depression, anxiety, PTSD)

Focus on functional goals and improvement, engaging patients actively in their pain management

Use disease-specific treatments when available (e.g., triptans for migraines, gabapentin/pregabalin/duloxetine for neuropathic pain)

Use first-line medication options preferentially

Consider interventional therapies (e.g., corticosteroid injections) in patients who fail standard non-invasive therapies

Use multimodal approaches, including interdisciplinary rehabilitation for patients who have failed standard treatments, have severe functional deficits, or psychosocial risk factors



NONOPIOID MEDICATIONS			
MEDICATION	MAGNITUDE OF BENEFITS	HARMS	COMMENTS
Acetaminophen	Small	Hepatotoxic, particularly at higher doses	First-line analgesic, probably less effective than NSAIDs
NSAIDs	Small-moderate	Cardiac, GI, renal	First-line analgesic, COX-2 selective NSAIDs less GI toxicity
Gabapentin/pregabalin	Small-moderate	Sedation, dizziness, ataxia	First-line agent for neuropathic pain; pregabalin approved for fibromyalgia
Tricyclic antidepressants and serotonin/norepinephrine reuptake inhibitors	Small-moderate	TCAs have anticholinergic and cardiac toxicities; SNRIs safer and better tolerated	First-line for neuropathic pain; TCAs and SNRIs for fibromyalgia, TCAs for headaches
Topical agents (lidocaine, capsaicin, NSAIDs)	Small-moderate	Capsaicin initial flare/burning, irritation of mucus membranes	Consider as alternative first-line, thought to be safer than systemic medications. Lidocaine for neuropathic pain, topical NSAIDs for localized osteoarthritis, topical capsaicin for musculoskeletal and neuropathic pain



Pain Approach Metaphor: The Ride



**You're WRONG, mama!
Pain is AWESOME**



Pain is the devil!

<https://imgflip.com/memesearch?q=waterboy>

<https://imgflip.com/memesearch?q=waterboy>

https://www.themeparkreview.com/parks/p_35_15979_six_flags_great_adventure_wonder_woman_lasso_of_truth



Pain Reduction as Bullseye

“pain = bad”



Physical domain



Words Matter



Observational Study

Medicine[®]

OPEN

Do lumbar magnetic resonance imaging changes predict neuropathic pain in patients with chronic non-specific low back pain?

Eva Vagaska, MD^{a,b}, Alexandra Litavcova, MD^c, Iva Srotova, MD^{a,b,d}, Eva Vlckova, PhD^{a,b,d}, Milos Kerkovsky, PhD^c, Jiri Jarkovsky, PhD^e, Josef Bednarik, PhD^{a,b,d}, Blanka Adamova, PhD^{a,b,d,*}

Abstract

The aim of this observational, cross-sectional study was to analyse lumbar magnetic resonance imaging (MRI) findings in patients with non-specific chronic low back pain (CLBP), and to evaluate any correlation with pain intensity and their capacity to predict neuropathic pain (NP) in these patients.

Fifty-two patients with non-specific CLBP, between 21 and 62 years of age, 50% men, were investigated. Lumbar MRI was employed to assess disc degeneration, endplate changes, Modic changes, disc displacement, facet degeneration, foraminal stenosis and central lumbar spinal stenosis. The characteristics of pain were evaluated and patients were divided into 2 subgroups: with NP (24 patients) and without NP (28 patients), based on the results of a DN4-interview. Correlations between particular MRI changes and their relations to the intensity of pain were evaluated. Logistic regression was used to disclose predictors of NP.

Lumbar spine degenerative features were frequent in patients with non-specific CLBP, with L4/5 the most affected level. A significant correlation emerged between the severity of degenerative changes in particular lumbar spine structures (correlation coefficient ranging between 0.325 and 0.573), while no correlation was found between severity of degenerative changes and pain. Multivariate logistic regression revealed only 2 independent predictors of NP – female sex (odds ratio [OR] = 11.9) and a mean pain intensity of ≥ 4.5 in the previous 4 weeks (OR = 13.1).

Degenerative changes in the lumbar spine are frequent MRI findings, but do not correlate with the intensity of pain and do not predict NP. However, female sex and pain intensity do predict NP.



Pain Reduction as Bullseye

“pain = bad”

Sadness

Anger

Anxiety

Emotional domain



Pain Reduction as Bullseye

“pain = bad”



<https://www.article.com/product/1170/ceni-volcanic-gray-sofa>



Behavioral domain



Pain Reduction as Bullseye

“pain = bad”

Self-efficacy

Pain = tissue damage

Cognitive domain



Self-Efficacy

You, me, or nobody is gonna hit as **hard** as life. But it ain't about how **hard you** hit. **It's** about how **hard you can get** hit and keep moving forward; how much **you can take** and keep moving forward. **That's** how winning is done!



Self-Efficacy

Rocky Balboa: I see three of him out there.



Paulie: Hit the one in the middle

<https://www.charactour.com/hub/characters/view/Paulie-Pennino.Rocky-Series>



Self-Efficacy



<https://threeowlmedia.com/2019/05/about-your-pain-points/>



Pain Self-Efficacy Questionnaire 2 item version (PSEQ-2)

Please rate how **confident** you are that you can do the following things at present, despite the pain.

1. I can do some form of work despite the pain (“work” includes housework and paid and unpaid work).

0 _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____
Not at all confident Completely confident

2. I can live a normal life despite the pain.

0 _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____
Not at all confident Completely confident



Phantom Pain Case Study: Don't Try This at Home!

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Father builds guillotine and chops off his own hand in bid to end years of agony after accident left him in pain but doctors did not help...and it still hurts

- Mark Goddard, 44, used an axe, some springs and a gate post to cut it off
- Father-of-one from Devon says NHS has ignored his pleas for amputation
- Ten days ago sliced off hand and burnt it in bucket to stop reattachment
- But pain he suffered remains and he has issued deadline for NHS surgery
- 'I've told them that if nothing is done, I will take the arm off,' he said

By MARTIN ROBINSON

PUBLISHED: 07:23 EDT, 28 March 2014 | UPDATED: 14:54 EDT, 29 March 2014

A motorcycle crash victim has amputated his injured hand with a homemade guillotine to end 16 years of unbearable pain only to find his arm still hurts.

Desperate Mark Goddard, 44, says he was driven to cut it off because the NHS refused to, and even burned his severed limb to ensure surgeons could not reattach it.

The father-of-one took a fortnight to build the guillotine using an axe, some springs and an old gate post, which took his left hand off ten days ago.

But unfortunately the DIY amputation in his garden, carried out without any anaesthetic, has failed to take away the pain that has tormented him since he was 28.



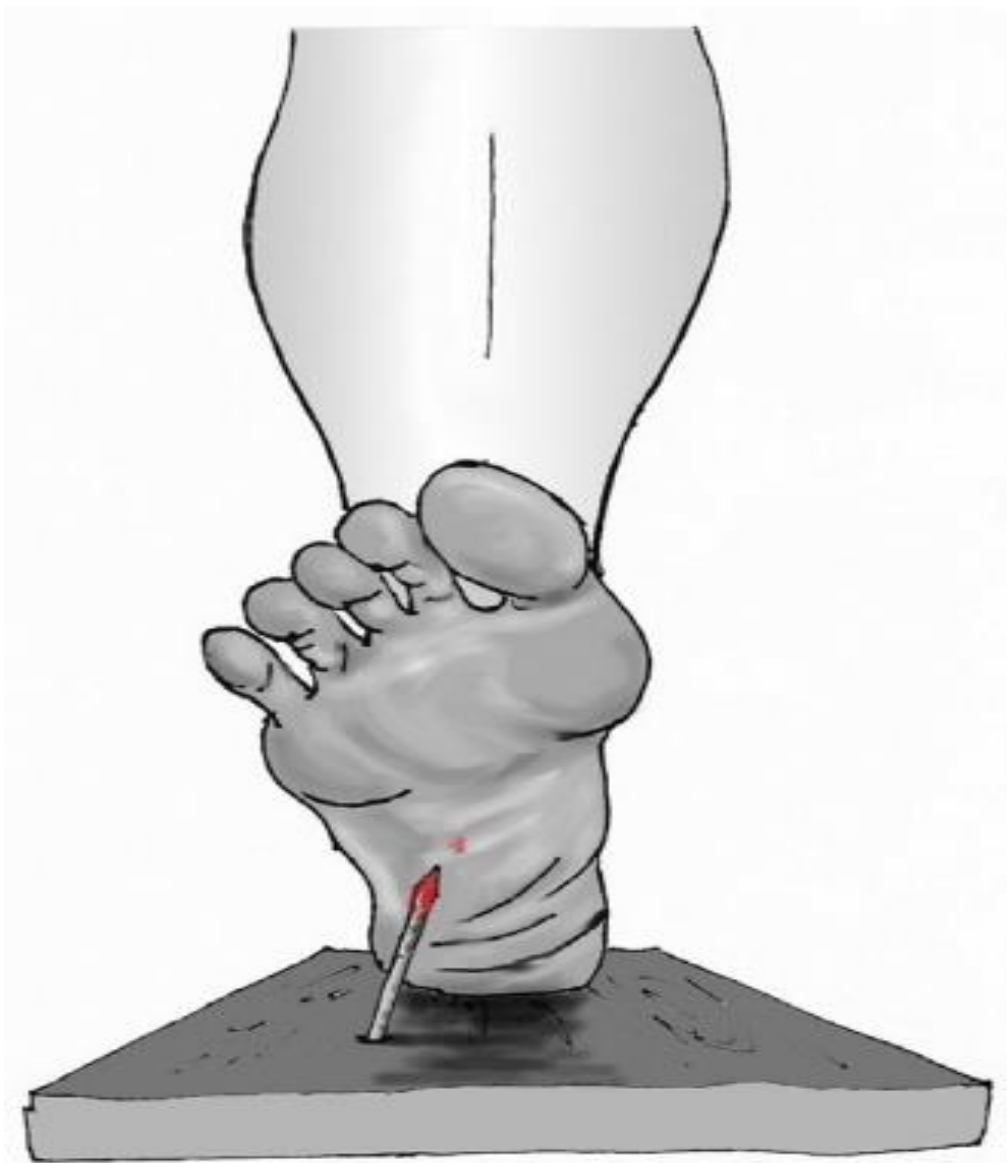
Painful: Mark Goddard, 44, sliced his hand off in his garden with a homemade guillotine to end years of pain - but it still hurts

16 years of left hand pain following motorcycle accident

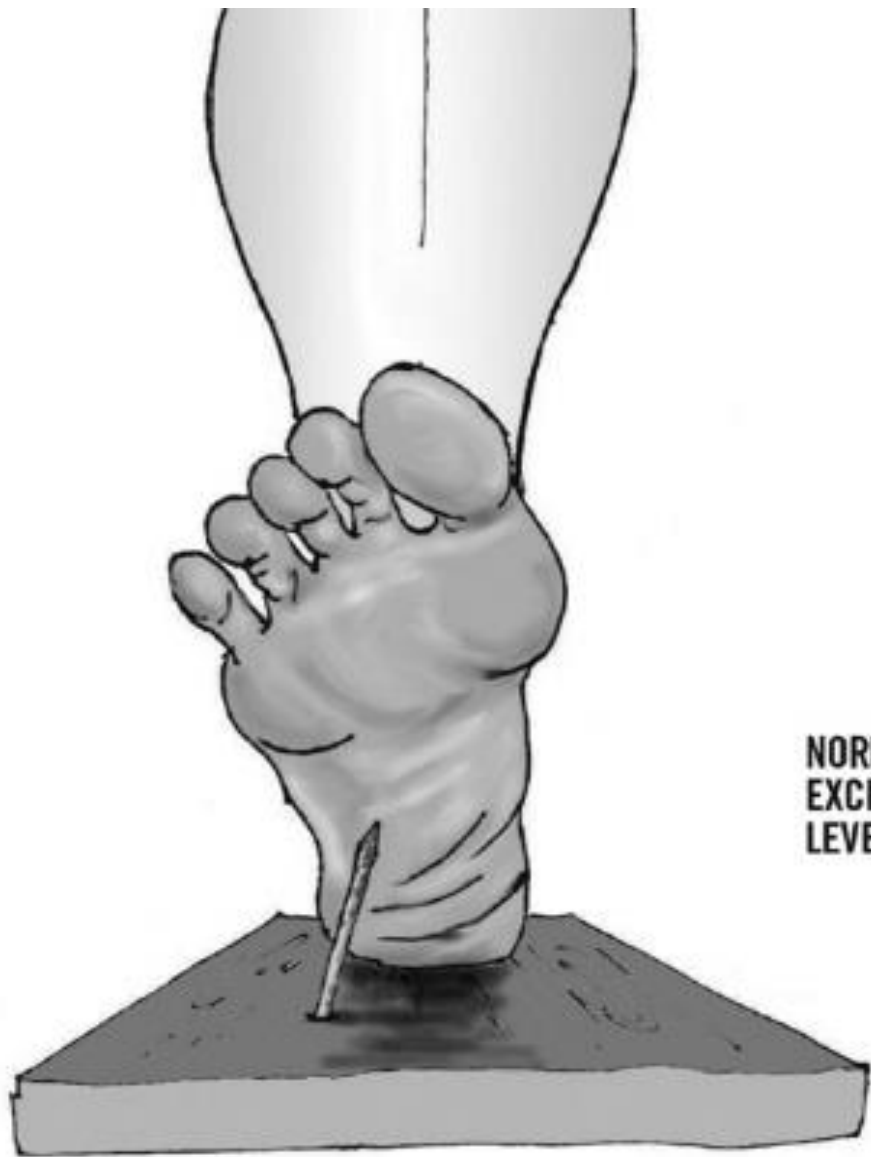
Multiple treatments: 40 medications + Spinal Cord Stimulator

Cut off hand via homemade guillotine/burnt it to prevent reattachment

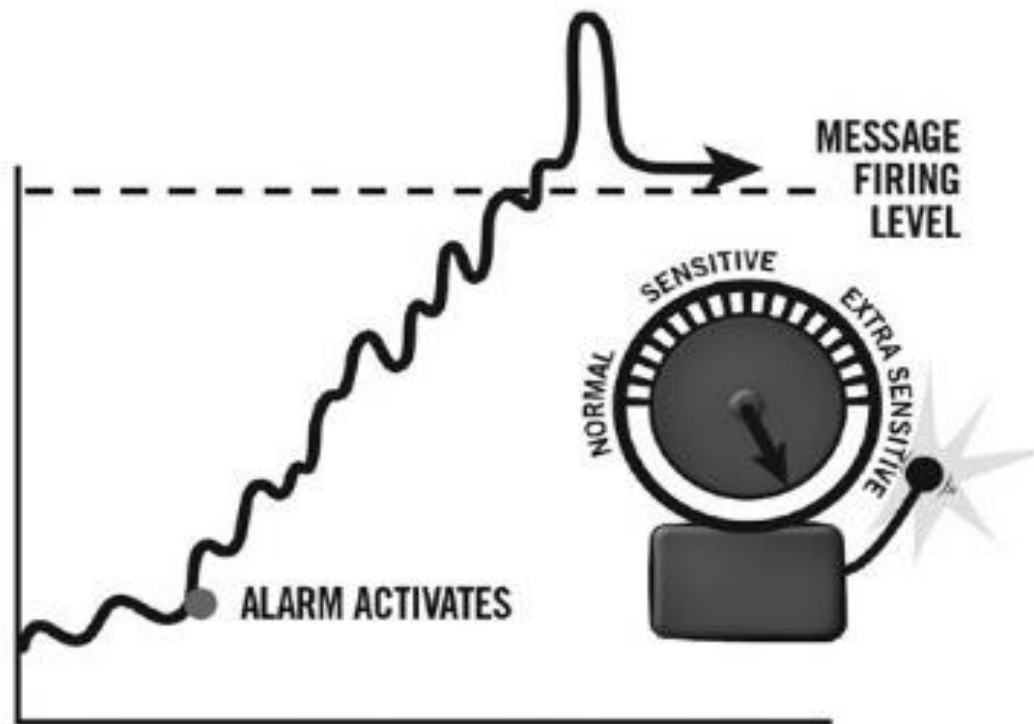
Now experiences left residual limb and phantom limb pain!

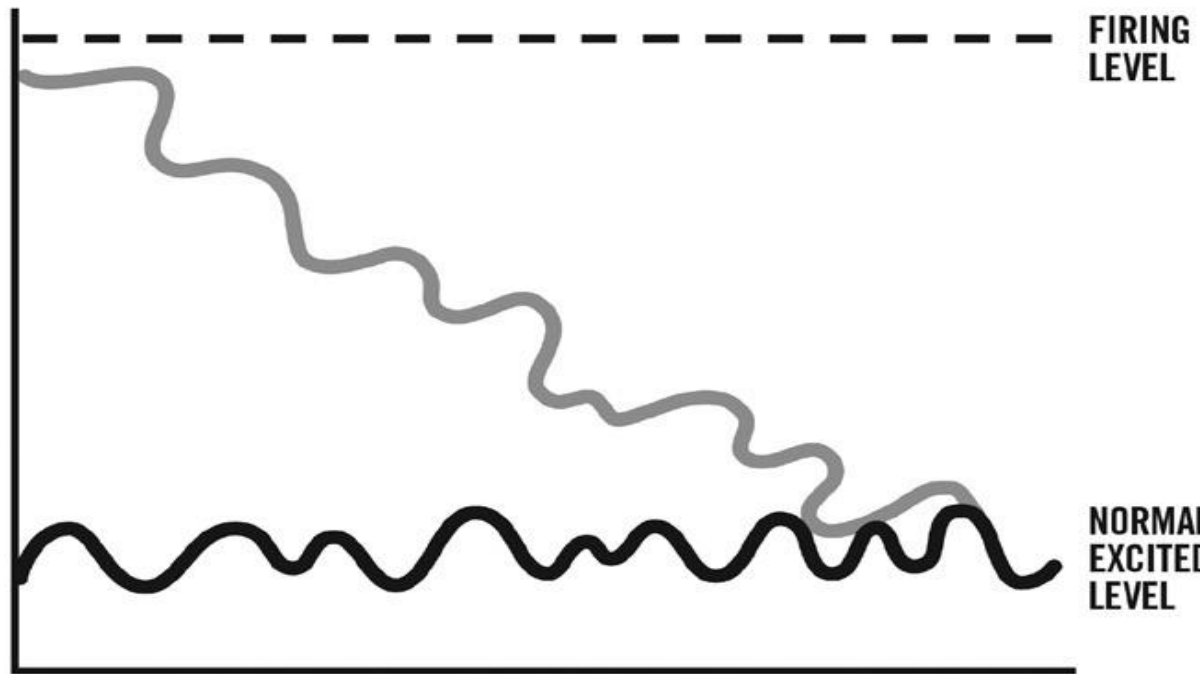


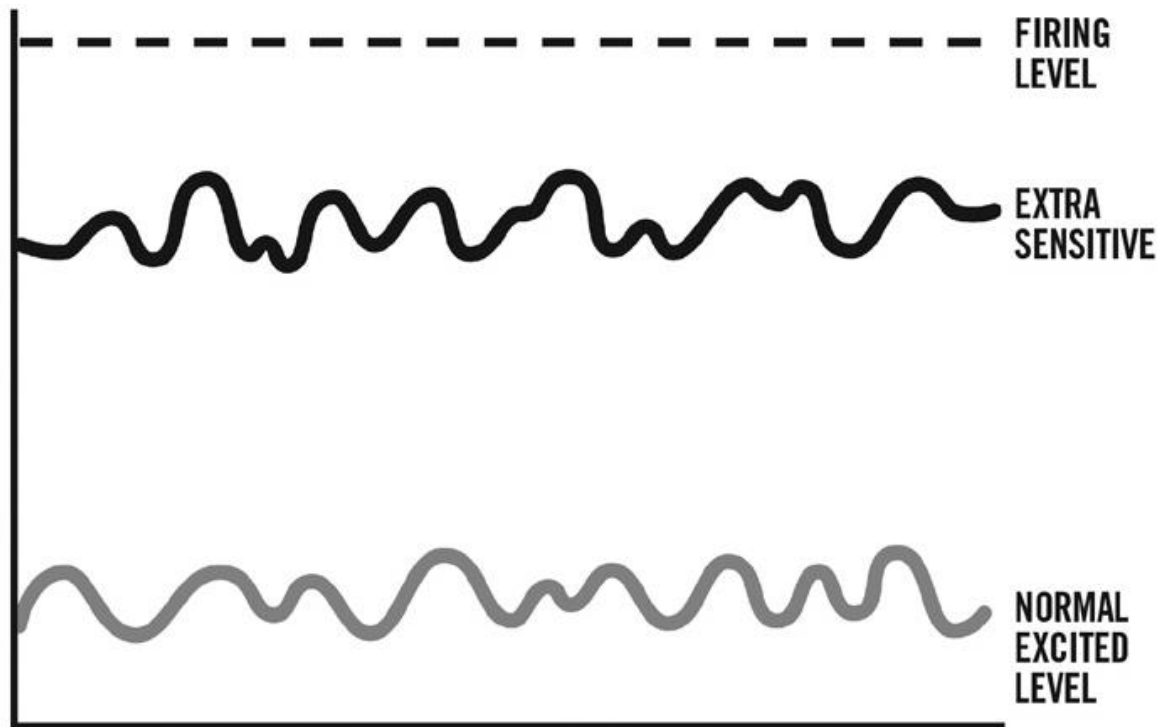




NORMAL
EXCITED
LEVEL







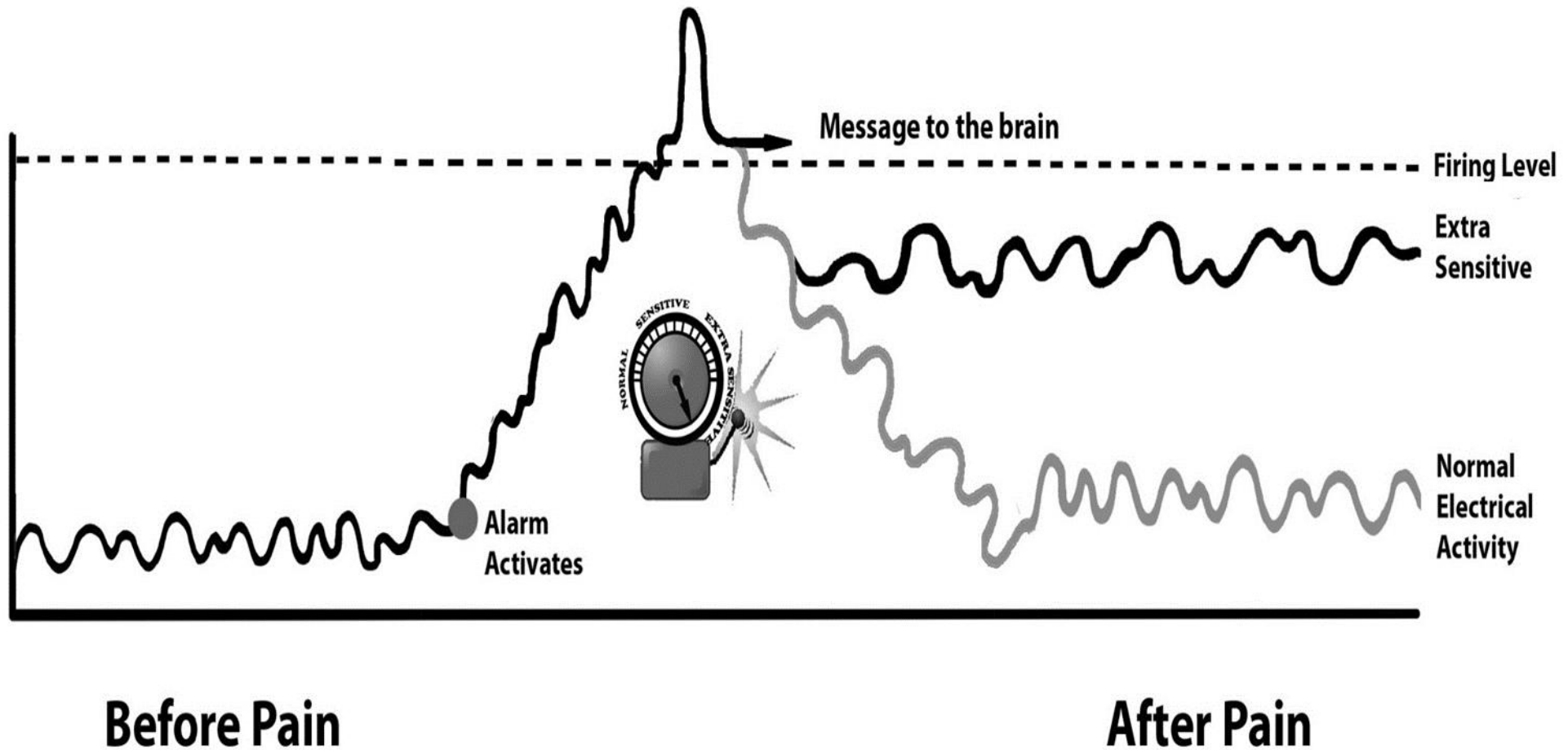




Figure 11: row 1 - patient relaxing. Note no red areas.

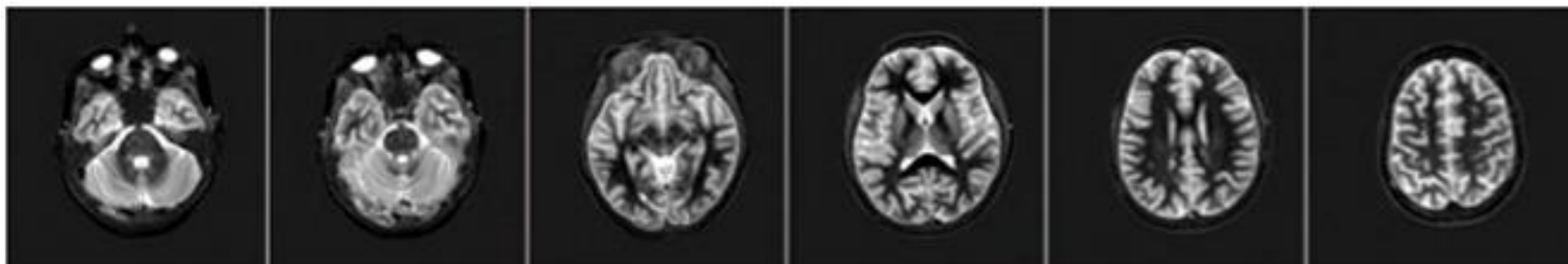


Figure 12: row 2 - patient asked her to move painful back while in scanner. Brain activity related to pain whereby red signifies more pain related activity.

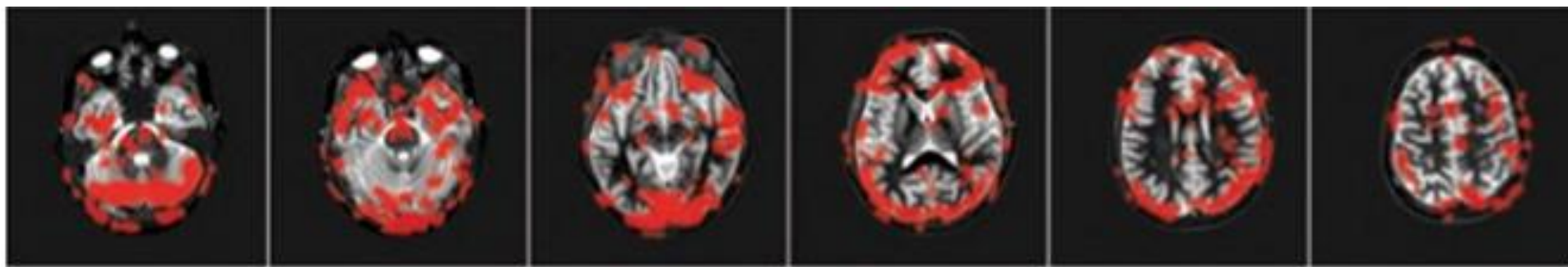
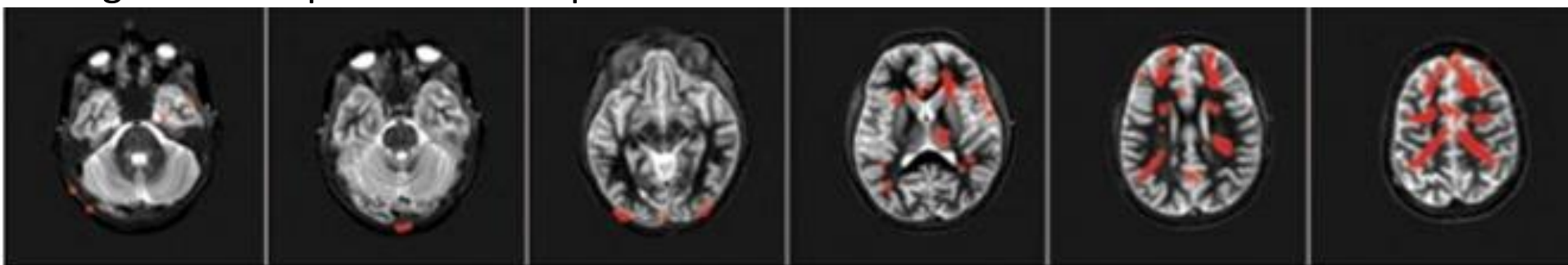
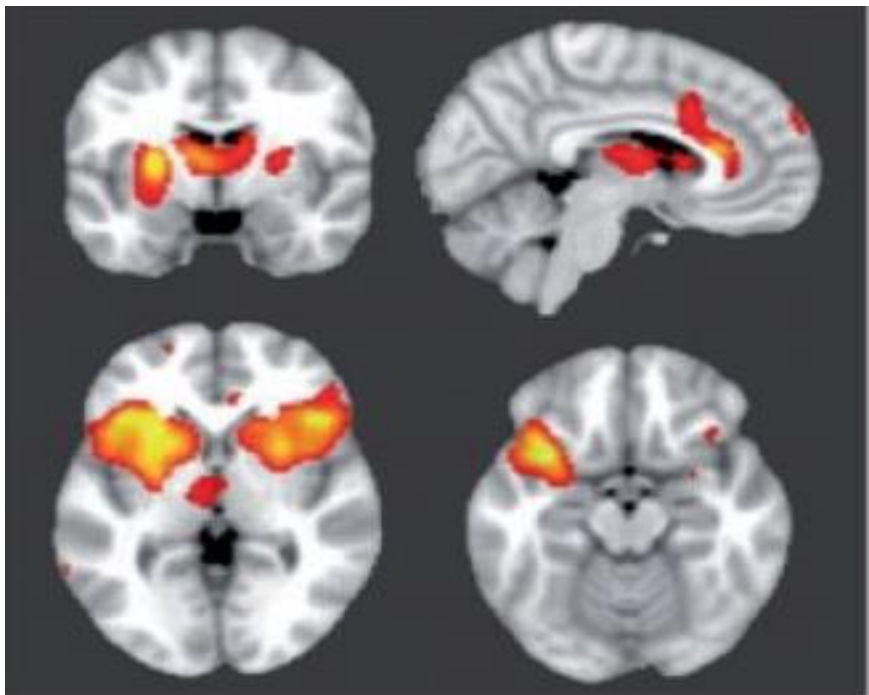


Figure 13: row 3 - patient taken out of scanner & provided with teaching session about pain for 25 minutes. Following this, the scan of the patient was immediately repeated doing the same painful task as performed in Row 2.





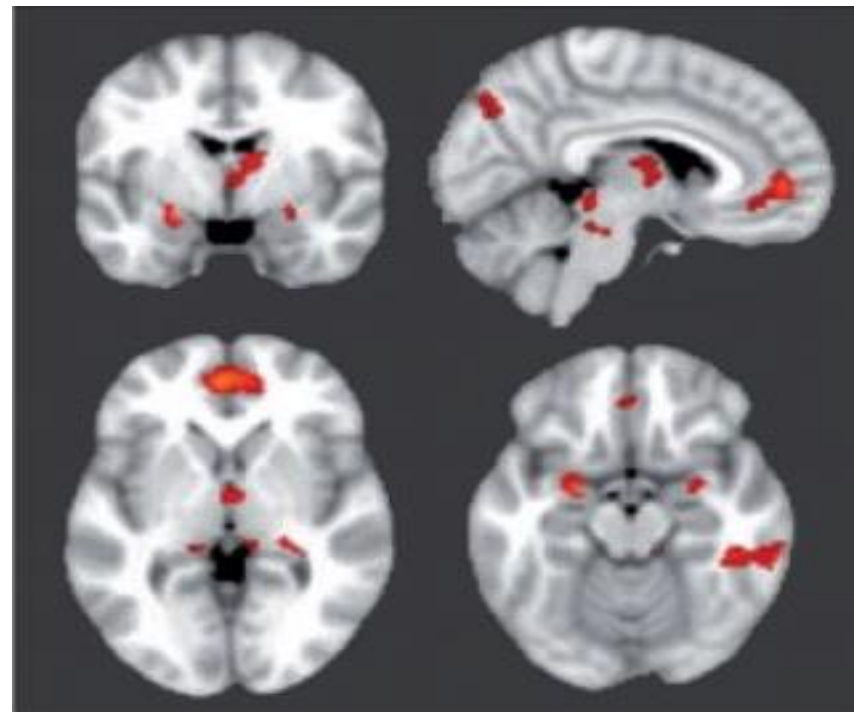
Acute Pain resides in Short Term Memory



Acute Pain Neural Loci:

- Primary/secondary somatosensory cortex
- Thalamus
- Insula

Chronic Pain resides in Long Term Memory



Chronic Pain Neural Loci:

- Medial Prefrontal Cortex
- Anterior Cingulate Cortex
- Amygdala/Hippocampus
- Nucleus Accumbens





Brain Map Experiment: Proprioception

Imagine or sense the exact shape and position of your ears

Rub just the left ear for a few seconds

Compare your ability to sense the left ear and the right.

Much easier to sense the left

- Touching the left ear activated its “mechanoreceptors” → which sent a signal to the brain, → activated the map for that area (only temporary)



Awww... Pain is so aCUTE!



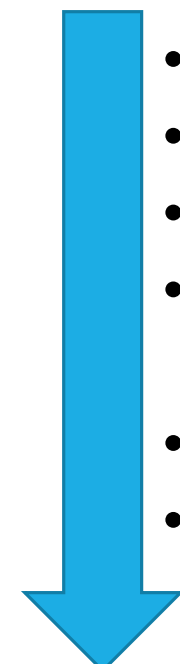
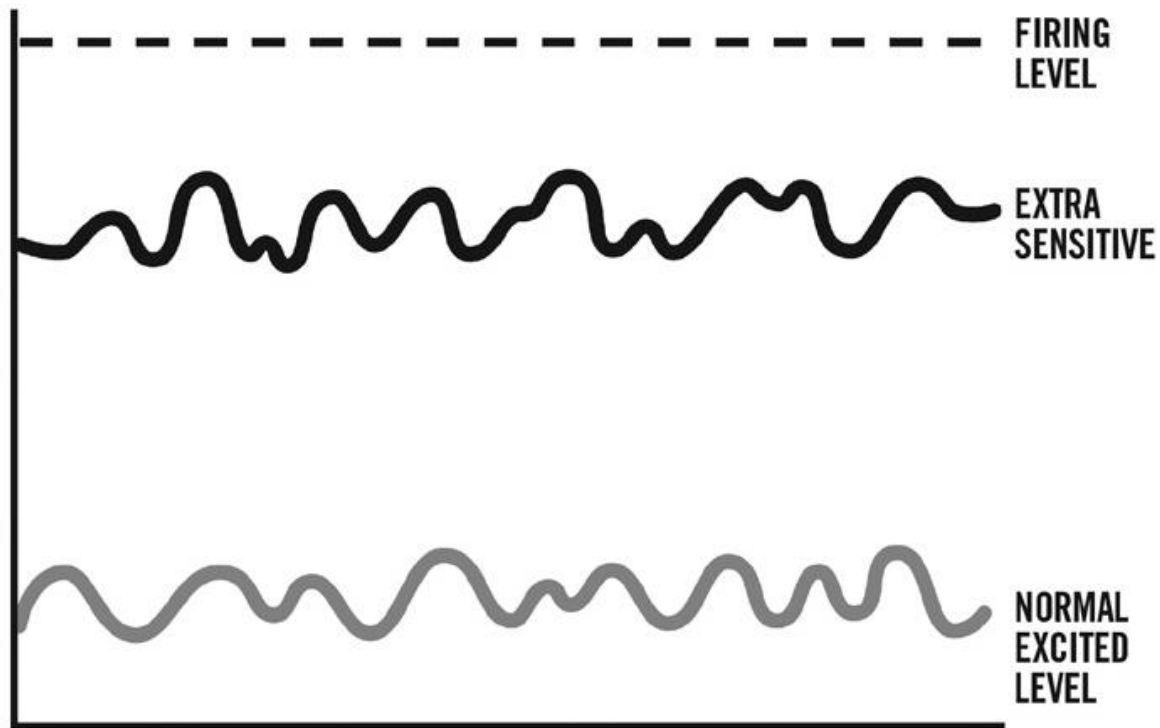
ACUTE PAIN

<https://www.pinterest.com/jmk4828/lipstick-on-a-pig/>



CHRONIC PAIN

<https://www.gambling911.com/politics/lipstick-pig-what%E2%80%98s-got-mccain-and-pal-sow-riled-091008.html>



- Movement
- Motivation
- Mindfulness
- Behavioral Activation
- Meaning
- Safe pain control
- Better Sleep
- Education
- Interdisciplinary Approach!!!

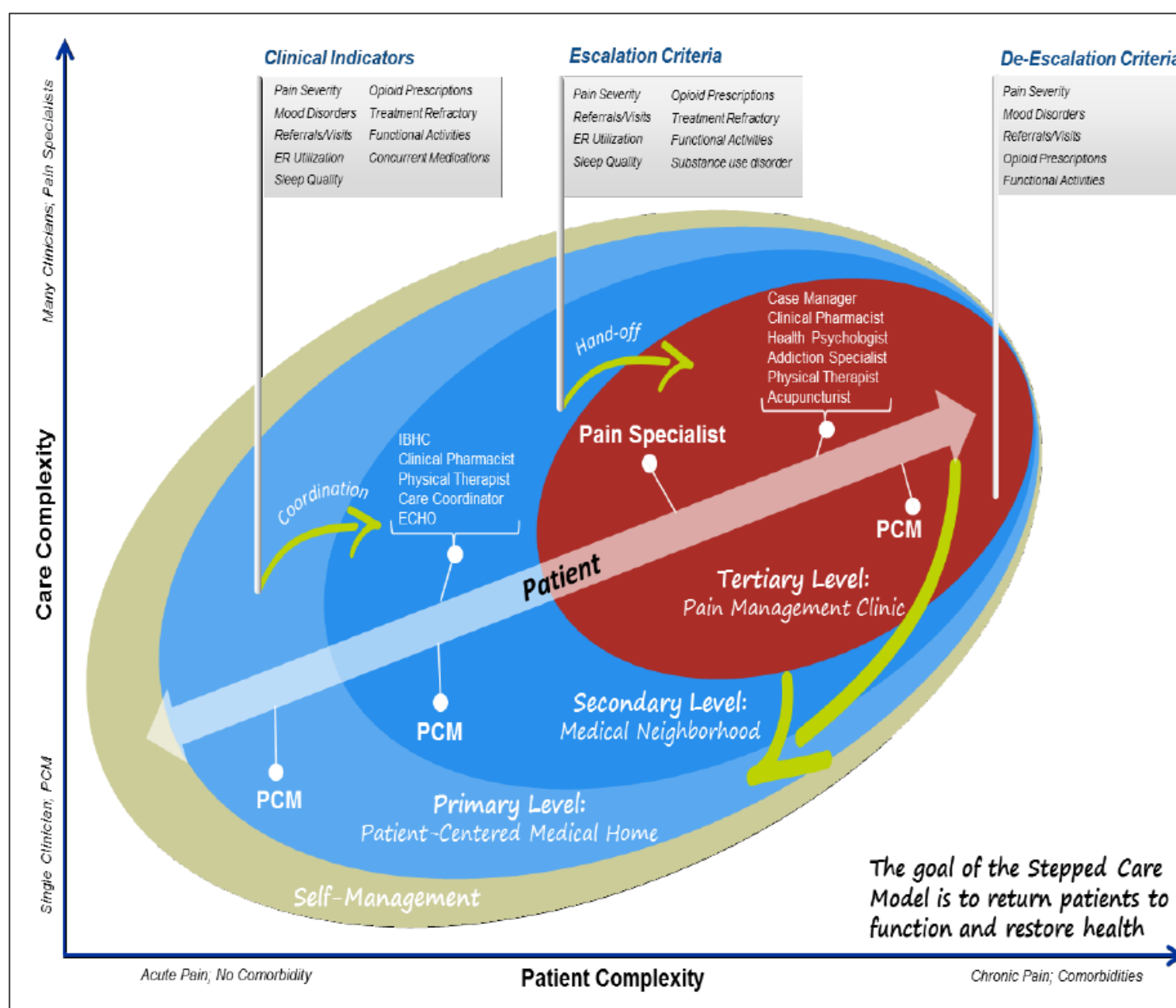


Example

[Video: https://www.dvcipm.org/clinical-resources/joint-pain-education-project-jpep/pain-educational-videos/#understandpain](https://www.dvcipm.org/clinical-resources/joint-pain-education-project-jpep/pain-educational-videos/#understandpain)



Cheesy Stock Photo





References

Coluzzi, F., Bifulco, F., Cuomo, A., Dauri, M., Leonardi, C., Melotti, R. M., ... & Corcione, A. (2017). The challenge of perioperative pain management in opioid-tolerant patients. *Therapeutics and clinical risk management, 13*, 1163.

Jackman, C. (2019). Perioperative pain management for the chronic pain patient with long-term opioid use. *Orthopaedic Nursing, 38*(2), 159-163.

Louw, A., Nijs, J., & Puentedura, E. J. (2017). A clinical perspective on a pain neuroscience education approach to manual therapy. *Journal of Manual & Manipulative Therapy, 25*(3), 160-168.

Nicholas, M. K., McGuire, B. E., & Asghari, A. (2015). A 2-item short form of the Pain Self-efficacy Questionnaire: development and psychometric evaluation of PSEQ-2. *The Journal of Pain, 16*(2), 153-163.

Vagaska, E., Litavcova, A., Srotova, I., Vlckova, E., Kerkovsky, M., Jarkovsky, J., ... & Adamova, B. (2019). Do lumbar magnetic resonance imaging changes predict neuropathic pain in patients with chronic non-specific low back pain?. *Medicine, 98*(17).



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