

How to Change the Brain in Pain
Kris Fant, LMHC, LPC
Progressive Rehabilitation Associates
2016 ORCA Conference
Handouts and Resources

My Pain Reduction Prescription

Fill in each area with a pleasurable activity.

I feel good when I look at _____

I feel good when I smell _____

I feel good when I taste _____

I feel good when I think _____

I feel good when I touch _____

I feel good when I hear _____

I feel good when I do _____

I am grateful for _____

This week, I am committed to trying _____

How the Mind Processes Pain

ANTERIOR CINGULATE CORTEX
 Registers unpleasant feelings when things go wrong, either physically or emotionally. **People who are highly sensitive to pain have greater activity here.**

SOMATOSENSORY CORTEX
 Registers which body part is in pain and the intensity of that pain. **Less activity here when patients focus their attention away from their pain.**

INSULAR CORTEX
 Integrates sensory, emotional and cognitive states; **feels empathy for others' pain.**

THALAMUS
 Receives **pain signals** from spinal cord and relays them to higher brain regions.

PERIAQUEDUCTAL GRAY
 An area rich in natural opioids that act as a **pain reliever.**

AMYGDALA
Anticipates pain and reacts to perceived threats.

PREFRONTAL CORTEX
 Processes pain signals rationally and plans action. **Active when trying to consciously reduce pain.**

MEDIAL PREFRONTAL GYRUS
 Focuses on negative personal implications of pain. **Heightened activity seen in anxious people.**

RIGHT LATERAL ORBITOFRONTAL CORTEX
 Evaluates sensory stimuli and **decides on response**, particularly if fear is involved. Mindfulness meditation calms down this response.

NUCLEUS ACCUMBENS
 Releases **dopamine and serotonin** during pleasure or pain.

Therapeutic Approaches

44% Decrease in pain reported by 15 undergraduates when they focused on a loved one's photo while exposed to a heated probe.	40% Decrease in pain intensity reported by 15 people who learned mindfulness meditation and used it while exposed to a heated probe.	30% Percentage of people in a study of 422 fibromyalgia patients who reported less pain after receiving cognitive behavioral therapy.
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Sources: Sean Mackey, Stanford; PLoS One; Journal of Neuroscience; Archives of Internal Medicine

http://865592213.r.lightningbase-cdn.com/wp-content/uploads/2013/06/How_Brain_Processes_Pain.jpg

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Books

General

Explain Pain by David Butler (expensive, but it's the best out there)

Freedom from Pain by Peter Levine and Maggie Phillips

The Brain's Way of Healing by Norman Doidge

Mindfulness

Mindfulness for Health by Vidyamala Burch and Danny Penman

Full Catastrophe Living by John Kabat-Zinn

Workbooks

Neuroplastic Transformation by Marla Golden, DO, and Michael Moskowitz, MD

Living Beyond Your Pain by Joanne Dahl and Tobias Lundgren

Managing Pain Before it Manages You by Margaret Caudill

Stress

Why Zebras Don't Get Ulcers by Robert Sapolsky

Humor/education

Painful Yarns by Lorimer Moseley

Fibromyalgia

Take Back Your Life by Tami Stackelhouse

Your Fibromyalgia Workbook by Adriaan Louw

Diet

The Anti-inflammatory Diet and Action Plans by Dorothy Calimeris and Sondi Bruner

Also consider the Paleo Diet and the Zone Diet as resources

Trauma

The Body Remembers by Babette Rothschild

Waking the Tiger by Peter Levine

The Body Keeps Score by Bessel van der Kolk, MD

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Videos

Why things Hurt with Lorimer Mosley (Ted Talk) (neuroscience)

<https://www.youtube.com/watch?v=gwd-wLdIHjs>

The Unwelcome Party Guest (acceptance)

<https://www.youtube.com/watch?v=VYht-guymF4>

Passengers on a Bus (acceptance)

<https://www.youtube.com/watch?v=Z29ptSuoWRc>

Why do we have to sleep (sleep)

<https://www.youtube.com/watch?v=3mufsteNrTI>

How to sleep better (sleep)

https://www.youtube.com/watch?v=3eLfn7Ewx_s (all wellcast channel videos can be good!)

Why Sitting is bad for you

<https://www.youtube.com/watch?v=wUEl8KrMz14>

Podcasts

Brain Science with Ginger Campbell

Paniac the podcast for mindful pain management

Backtivity

A Healthy Curiosity

On Being with Krista Tippett

Blogs

Spoon Theory <http://www.butyoudontlooksick.com/articles/written-by-christine/the-spoon-theory/>

Psych Central <http://blogs.psychcentral.com/chronic-pain/>

A fibromyalgia coaches blog <http://myrestoredhealth.com/blog/>

Apps

Stop, Breathe, Think

Calm

Migraine Buddy

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The protectometer app <http://www.noigroup.com/en/Product/EPHP> (currently only for ios)

Biofeedback

Emwave (\$129-300)

Amazon: Stress Thermometer (\$22)

Support Groups

Progressive Rehabilitation Associates

Portland – Chronic Pain Support Group Monday's from 12-1

Vancouver – Chronic Pain Support Group Wednesday's from 2-3

(both on meetup as well)

Meetup Groups

<http://www.meetup.com/The-East-Portland-Fibromyalgia-Chronic-Pain-Fatigue-Meetup/>

<http://www.meetup.com/Fibromyalgiasupport/>

General Portland/Vancouver Lists

<http://www.fmcpaware.org/support-groups/browse-support-groups.html?sid=95:Oregon>

http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Arthritis/Documents/art_hsupport.pdf

Online

<http://www.livingwithfibro.org/>

Websites

<http://www.noigroup.com/en/Category/EP>

<http://www.fmcpaware.org/>

Local pain speciality centers

These places will often treat clients for a short time for the Chronic Pain, while the client remains in therapy with their therapist. They offer the skills, tools, and groups that can be helpful with pain, while you remain the longer term contact. They will also often consult with you so the client is getting the same message across treatment.

Progressive Rehabilitation Associates www.progrehab.com (Portland and Vancouver)

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Evergreen Behavioral Health <http://evergreenbehavioralhealth.com/> (Vancouver)

Portland Psychotherapy Clinic <http://portlandpsychotherapyclinic.com/> (Portland)

Local for practitioners

Monthly Pain Society Dinners - <http://www.westernpainsociety.org/>

Monthly peer consult group for ACT

<http://portlandpsychotherapytraining.com/acceptance-and-commitment-therapy-peer-clinical-consultation-group/>