

Mindfulness for Chronic Pain Management

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What is Mindfulness?

“Mindfulness is ‘paying attention in a particular way: on purpose, in the present, and nonjudgmentally.’”⁴
(Kabat Zinn, 2009)

Mindfulness has a rich history originating from a blend of modern psychology and ancient meditation practices. In healthcare, mindfulness has two essential components:

- *Focused attention*

Focused attention includes noticing and thinking about an object or sensation (such as breathing, warmth, a light, movement, something being held, a taste or smell).

- *Open monitoring*

Open monitoring is the act of noticing thoughts and mental experiences while at the same time reflecting on the process of thinking (nonjudgmental observation).^{2,3}

Chronic pain is pain that lasts *longer* or is *stronger* than what is considered to be normal within the healing period. Chronic pain can be the result of modulation (see Figure 1). In other words, pain signals can be altered and changed in the spinal cord—making them stronger than expected.⁶ This means the experience of pain can be changed (modulated), if we find the right techniques.

Why Mindfulness?

- Mindfulness is an evidence-based approach to dealing with chronic pain that has been tested and proven effective for over 35 years.⁷

- Mindfulness reduces reports of pain as well as use of pain medications.⁷
- Mindfulness-based approaches to reducing stress can increase coping ability, reduce pain, and lessen psychological distress (e.g., depression, worry, sadness, or anxiety).^{8,9}
- Mindfulness has long-lasting effects: the changes in attention and thinking can continue to control pain even after it is practiced.^{7,10}
- Mindfulness can be used anywhere and at any time to reduce pain.

Addiction to Pain Medication

Opioids have two effects in the brain, 1) an analgesic (pain-reducing) effect, and 2) a learned association of feeling relief. As the connection between medication and relief strengthens over time, lower levels of pain start to trigger the need for pain relief. This may result in early, inappropriate use of pain medication.¹¹



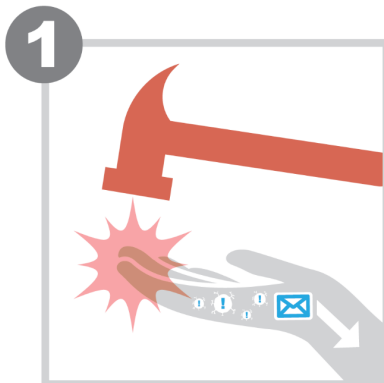
Treatment of chronic pain with opioids can create the experience of more pain (hyperalgesia) because of the changes in pain

perception. The increase in pain can lead to increased stress. The pain and stress can start an addictive process of seeking more medication. The result can be a feeling of needing more medicine, even though the medicine isn't helping as much as it did in the beginning.¹⁰ In other words, over time, individuals may feel more pain despite increasing their medication dosage, resulting in substance misuse.

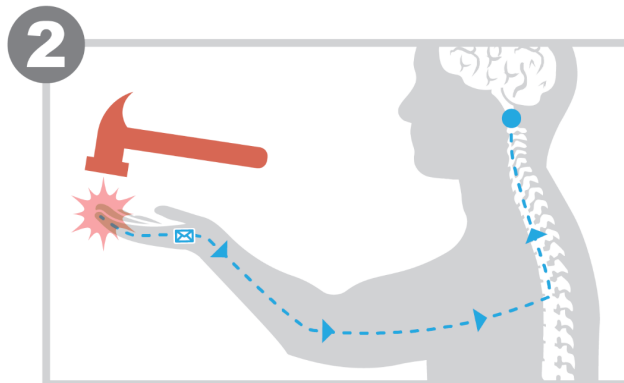
Figure 1. Anatomy of Pain

There are four steps in the pain process:

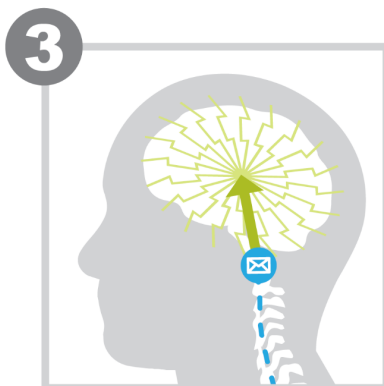
1. Sensory neurons respond to harmful stimuli (i.e., trauma, inflammation, infection) sending the pain signal to the brain.
2. The signal of pain moves from the initial site of injury, through the spinal cord, to the brain stem.
3. The brain stem activates the brain centers where sensations, reactions, and emotional responses to pain are created.
4. Pain sensations can change or be blocked in the spinal cord. This can result in more or less pain than would be normal for the injury. This process is called modulation.⁵



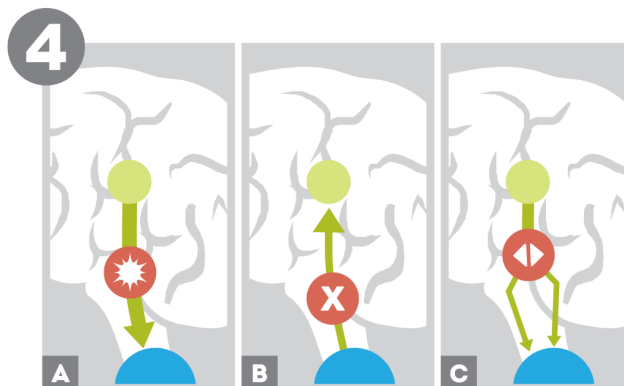
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2 The signal of pain moves from the initial site of injury, through the spinal cord, to the brain stem.



3 The brain stem activates the brain centers where sensations, reactions, and emotional responses to pain are created.



4 Pain sensations can change or be blocked in the spinal cord. This can result in A—more pain than expected, B—blocked or less pain than normal for the injury, or C—a change in how or where the pain is experienced. This process is called modulation (Wood, 2008).

How Mindfulness Works

Mindfulness targets sections of the brain that can be affected by stress, pain, and addiction.¹² Mindfulness can restore the ability to mentally manage pain, emotion, and behavior.¹⁰ Instead of avoiding pain, mindfulness increases the ability to bear the unpleasant feeling without distress.

Mindfulness is a type of mental training to develop skills in:

- Self-regulation—regulating pain, emotions, and actions without outside help
- Attentional re-orienting—not allowing a distracting thought or feeling to linger, or shifting attention away from distractions, back to the point of focus
- Metacognition—being aware of your thoughts
- Reappraisal—looking at something a second time to determine its meaning
- Inhibitory control—changing habitual reactions to things/situations



Mindfulness changes the way the brain experiences rewards.

It restores positive feelings that have become harder to achieve over time.¹

Through this process, comfort and contentedness can be restored.

Getting the Most Out of Mindfulness¹³

- **Bring a beginner’s mind.** Allow yourself to experience each moment as fresh and new without any expectations of what it could become.
- **Nurture nonjudgment.** It takes practice to slow things down and let distractions pass you by without passing judgement on likes/dislikes.
- **Cultivate acceptance** by actively recognizing that things are the way they are.
- **Focus on non-striving** by experiencing each moment of life without trying to make anything happen.

“Wherever you go, there you are.”
(Kabat Zinn, 2009)

- **Let go.** Allow things to be what they are, without dwelling, and recognize that mindfully letting go is your doorway to freedom.
- **Practice gratitude.** Focus on the positive, don’t allow yourself to take the amazing things happening in your life each day for granted.

Some Examples of Every-Day Mindfulness Activities

Use your five senses to cultivate mindfulness in your daily life (sight, sound, taste, touch, and smell).



What	How
Mindful stretching or relaxation in the morning	Before getting out of bed in the morning, notice your breathing and take a few deep breaths or do some light stretching while focusing on the present moment and mentally accept the experiences this day will bring.
Mindfulness during daily grooming	During daily grooming tasks (teeth brushing, bathing, hand washing, etc.) notice your five senses (i.e., smells, sights, sounds, tastes, sensations from touch) in the moment and be present in your experience to minimize a wandering mind.
Mindful walks	Be mindful by noticing what is going on around you and focus on your five senses (i.e., smells, sights, sounds, tastes, sensations from your feet touching the ground) or focus on finding things in your environment for each color on the color wheel (i.e., red, orange, yellow, green, blue, and purple) to stay present
Mindful eating	Focus on each aspect of eating through your five senses (i.e., smells, sights, sounds, tastes, sensations from touch) with emphasis on taste in the moment and be present in your experience to minimize a wandering mind
Mindfulness during repetitive tasks	During repetitive tasks (i.e., dish washing, waiting in lines, laundry) notice your five senses (i.e., smells, sights, sounds, tastes, sensations from touch) in the moment and be present to experience mindfulness.
Mindful meditation, pondering, or prayer at morning or night	Experience your thoughts or prayers in a nonjudgmental and accepting way, notice any judgements you may have and let them go, or replace negative thinking with a focus on things you are grateful for or keep a gratitude journal.

Getting Started in Mindfulness Meditation¹³

- Set aside a time and place to meditate.
- Sit comfortably in a chair or on the floor with your back straight.
- Close your eyes, or loosely focus your gaze on an object.
- Breathe slowly, deeply, and gently.
- Keep your mind focused inward or on an object. If your mind wanders, gently guide it back to center.
- Breathe peace and quiet into your heart and mind.
- Be kind to yourself and let go of judgments or negative thoughts you may be having.
- Start small, without expectations or judgment of how long or how often to practice.

Mindfulness Resources**

Websites:

1. American Mindfulness Research Association (AMRA): <https://goamra.org/>
2. Self-Compassion (Dr. Kristin Neff): <https://self-compassion.org/>
3. UC San Diego Health (Center for Mindfulness, Videos About Stress and Mindfulness): <https://health.ucsd.edu/specialties/mindfulness/resources/Pages/video.aspx>
4. UC San Diego Health (Center for Mindfulness, Guided Audio Files to Practice MBSR): <https://health.ucsd.edu/specialties/mindfulness/programs/mbsr/Pages/audio.aspx>

Books:

1. The Mindfulness Solution to Pain: Step-by-Step Techniques for Chronic Pain Management by Jackie Gardner-Nix
2. Mindfulness for Beginners by Jon Kabat-Zinn
3. Wherever you go, There you are by Jon Kabat-Zinn
4. Mindfulness: An Eight-Week Plan for Finding Peace in a Frantic World by Danny Penman and J. Mark G. Williams

Disclaimer

*Always consult a doctor when considering treatment or management of a medical condition.

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