This document has been written for clinicians. The content was developed by the Integrative Medicine Program, Department of Family Medicine, University of Wisconsin-Madison School of Medicine and Public Health in cooperation with Pacific Institute for Research and Evaluation, under contract to the Office of Patient Centered Care and Cultural Transformation, Veterans Health Administration.

Information is organized according to the diagram above, the Components of Proactive Health and Well-Being. While conventional treatments may be covered to some degree, the focus is on other areas of Whole Health that are less likely to be covered elsewhere and may be less familiar to most readers. There is no intention to dismiss what conventional care has to offer. Rather, you are encouraged to learn more about other approaches and how they may be used to complement conventional care. The ultimate decision to use a given approach should be based on many factors, including patient preferences, clinician comfort level, efficacy data, safety, and accessibility. No one approach is right for everyone; personalizing care is of fundamental importance.
WHOLE HEALTH: CHANGE THE CONVERSATION
Mindfulness Meditation for Chronic Low Back Pain
Clinical Tool

Introduction

Chronic low back pain (CLBP)—the second leading cause of lost work time—is common, costly, disabling, and often refractory to existing treatments.\(^1\)\(^-\)\(^3\) Approximately 80% of U.S. adults experience low back pain during their lifetime, with 2%-8% developing chronic back pain.\(^1\)\(^,\)\(^3\) Americans spend at least $50 billion per year on low back pain, with chronic back pain making up at least 90% of the costs.\(^4\) Individuals with CLBP often need to resort to opioid pain medications to reduce pain and improve function, and CLBP is the leading non-cancer chronic pain condition for which long-term opioids are prescribed.\(^5\) In spite of using potent opioid analgesics, many patients continue to suffer from CLBP, co-occurring mental health problems, and adverse effects of opioids, including overdose and death.\(^5\)\(^-\)\(^10\) There is a critical need for safe and effective treatments for CLBP.\(^5\)\(^,\)\(^9\)\(^,\)\(^10\)

Mindfulness Meditation for Chronic Low Back Pain

Patients with CLBP frequently turn to complementary and alternative medicine (CAM) therapies.\(^11\)

Mindfulness meditation (often referred to just as “meditation”)—a popular and safe complementary mind-body approach—helps train the mind in nonjudgmental attention to the present moment experiences and has great potential as a therapy for CLBP.\(^12\)\(^-\)\(^15\) It is already widely used to improve health, well-being, and pain, and it shows sustained effects over time.\(^14\)\(^,\)\(^16\) Meditation can positively impact many chronic health problems, including depression and anxiety, common in patients with CLBP.\(^2\)\(^,\)\(^9\)\(^,\)\(^10\)\(^,\)\(^12\)\(^,\)\(^14\)\(^,\)\(^17\) It can exert biological effects and has been associated with beneficial changes in brain areas involved in adaptive pain, stress, and affect regulation.\(^18\)\(^,\)\(^19\) Meditation-learned skills can complement those acquired through “traditional” behavioral therapies, such as cognitive behavioral therapy (CBT), which is a part of evidence-based, standard-of-care treatments for CLBP.\(^20\)\(^-\)\(^22\) See the modules Mindful Awareness and Power of the Mind for additional information.

Although meditation has been used clinically in CLBP for several decades, research evidence on its efficacy in this specific patient population is limited, albeit promising. Initial uncontrolled studies in the 1980s have shown promise of mindfulness-based stress reduction (MBSR) for refractory chronic pain and reduction in pain medication use.\(^23\)\(^,\)\(^24\) Since then, five small randomized controlled trials have examined meditation’s efficacy in CLBP, including opioid-treated CLBP, and showed positive effects on pain intensity, function, and pain coping.\(^25\)\(^-\)\(^29\) One study found a reduction in opioid misuse related behaviors in patients with opioid-treated chronic non-cancer pain.\(^29\) Additionally, a recent systematic review and meta-analysis of mindfulness meditation as a therapy for mental
health conditions and well-being showed meditation’s efficacy for reducing pain severity in chronic pain conditions as well as decreasing anxiety and depression symptoms.14

Mindfulness meditation practice facilitates and improves the mind’s ability to pay attention to “the present moment” while maintaining an accepting, nonjudgmental awareness of “the present moment” experiences (e.g., thoughts, emotions, or bodily sensations, such as pain).12–15 As such, meditation may help change the individual’s relationship to pain and other experiences, rather than focusing on changing the content of the experience itself (which, of note, may not be possible), and has the potential to uncouple the physical experience of pain from pain-related suffering. In chronic pain conditions, pain severity and pain-related suffering have been conceptualized as overlapping but unique entities, further supporting the understanding of chronic pain as a multidimensional construct.30 Pain coping skills play a major role in how patients cope with and experience pain. Acceptance-based pain coping has been linked to improved outcomes in chronic pain.31 Mindfulness meditation training may improve adaptive, acceptance-based coping, while reducing unhealthy “fear-avoidance” (e.g., pain catastrophizing) based coping.32,33

Many of the existing mindfulness meditation-based programs have been patterned after mindfulness-based stress reduction, and consist of eight weekly group sessions, guided by experienced instructors, and daily at-home practice. During the program, participants are taught a variety of meditation techniques, including longer, more formal ones (e.g., body scan, breath, or sitting meditation) as well as shorter ones (e.g., urge surfing, other mini-meditations) that may be particularly useful for immediate coping with “acute” challenges brought by daily life. A common mini-meditation practice that may be helpful to implement when faced with a challenge such as a pain flare involves the following:

1. Taking a moment to pause (instead of automatically reacting to the challenge/pain);
2. Noticing what is happening “right now” in the body, mind, and heart (the thoughts, images, emotions, and sensations that are occurring);
3. Focusing on noticing the sensations of breathing, of the air moving or the belly rising and falling with each breath;
4. Expanding one’s awareness to the body and mind as a whole; and, finally,
5. Making a mindful decision about, as opposed to reacting automatically about, what to do next (if anything).21,22,34
### General Resources

#### Useful Websites
- Dharma Seed: [http://www.dharmaseed.org/](http://www.dharmaseed.org/) 
  Downloadable Vipassana meditation teachings and instruction.
  Information on literature, research, classes, and teacher training.
- University of Massachusetts Center for Mindfulness: [http://www.umassmed.edu/cfm](http://www.umassmed.edu/cfm) 
  Home of the mindfulness-based stress reduction (MBSR) program. Information on literature, research, retreats, classes, teacher training.
- University of Wisconsin Department of Family Medicine—Mindfulness in Medicine: [http://www.fammed.wisc.edu/mindfulness](http://www.fammed.wisc.edu/mindfulness) 
  Mindfulness meditation education for clinicians, patient resources, mindfulness meditation recordings.
  Vipassana is a traditional form of mindfulness meditation. Through Vipassana centers, one can enroll in a meditation retreat (usually 10-day long) that charges a donation-type fee (the amount that one can afford); it can be free-of-charge for those who cannot afford donation.

#### Books/Authors of Interest
- A Path With Heart: The Classic Guide Through the Perils and Promises of Spiritual Life (by Jack Kornfield)
- Coming to Our Senses: Healing Ourselves and the World Through Mindfulness (by Jon Kabat-Zinn)
- Full Catastrophe Living (by Jon Kabat-Zinn)
- Insight Meditation: The Practice of Freedom (by Joseph Goldstein)
- Mindfulness for Beginners: Reclaiming the Present Moment—and Your Life (by Jon Kabat-Zinn)
- Mindfulness-Based Cognitive Therapy for Depression (by Zindel V. Segal, J. Mark G. Williams, John D. Teasdale)
- Miracle of Mindfulness (by Thich Nhat Hanh)
- Radical Acceptance (by Tara Brach)
- Seeking the Heart of Wisdom: The Path of Insight Meditation (by Joseph Goldstein, Jack Kornfield)
- Start Where You Are: A Guide to Compassionate Living (by Pema Chodron)
- When Things Fall Apart: Heart Advice for Difficult Times (by Pema Chodron) Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life (by Jon Kabat-Zinn)

#### Other Resources
  Guided Mindfulness Meditation CDs developed by Jon Kabat-Zinn for the Mindfulness-Based Stress Reduction (MBSR) program. Link to order Series 1 (4 CDs), Series 2 (4 CDs) and Series 3 (4 CDs) CDs or MP3’s, complete with descriptions of CDs.
- **Guided Mindfulness Meditation Practice:** 
  Tara Brach: [www.tarabrach.com/audiodharma.html](http://www.tarabrach.com/audiodharma.html) 
  Free guided mindfulness meditations and talks online; links to books, CDs, and other resources.

    Free guided mindfulness meditations and talks online; links other resources

    Free guided mindfulness meditation videos; links to books, CDs, e-course, and other resources.
Mindfulness Meditation Resources

Chronic Pain/Chronic Low Back Pain Resources

- Healing and the Mind with Bill Moyers: Healing from Within (Video) (Bill Moyers)
- Living Well with Pain and Illness: The Mindful Way to Free Yourself from Suffering (Vidyamala Burch)
- Mindfulness Meditation for Pain Relief: Guided Practices for Reclaiming Your Body and Your Life (2-disc CD set) (by Jon Kabat-Zinn)
- Natural Pain Relief: How to Sooth and Dissolve Physical Pain with Mindfulness (Shinzen Young)
- The Mindfulness Solution to Pain: Step-by-Step Techniques for Chronic Pain Management (Jackie Gardner-Nix, Jon Kabat-Zinn)

This is a documentary about people with chronic debilitating illnesses, many with severe chronic pain, and their journey to a better life through mindfulness meditation training.

Whole Health: Change the Conversation Website

Interested in learning more about Whole Health?
Browse our website for information on personal and professional care.

http://projects.hsl.wisc.edu/SERVICE/index.php

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References


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