

Don't Miss These Opportunities to Learn the Latest in Pain Science and Treatment

- Physical Therapy Journal May 2018 Issue is devoted exclusively to nonpharmacological approaches to pain management. <https://academic.oup.com/ptj/issue/98/5>
- A webinar on the topic Navigating at the Intersection of Chronic Pain and Substance Abuse Disorders is scheduled for July 10, 4:00 – 5:00 pm EST at the APTA Learning Center <http://learningcenter.apta.org/student/MyCourse.aspx?id=7c310be5-1bde-46b8-bc5c-b73215df99a0&programid=dcca7f06-4cd9-4530-b9d3-4ef7d2717b5d>

#### Breathing, Relaxation and Mindfulness Meditation:

As evidence suggests stress may amplify pain through both central and peripheral mechanisms,<sup>1,2</sup> providing patients with skills to self-regulate the stress reaction makes common sense. Diaphragmatic breathing, relaxation exercises and mindfulness meditation are restorative techniques that can help patients calm the sympathetic nervous system and, in turn, may minimize stress-related adverse effects due to exercise<sup>3</sup> and, more broadly, may improve pain, mobility, depression and enhance quality of life.<sup>4,5</sup>

One simple technique that often elicits a positive response from patients consists of supported physical rest combined with slow breathing and conscious relaxation. This can calm a patient after they perform physically challenging exercises or when they feel emotionally distressed. This practice has no religious or cultural undertones and is simple to teach. The therapist need only:

1. Help the patient find a comfortable, supported position
2. Show the patient how to slowly and easily transfer in and out of a that position
3. Explain the benefit of slow, diaphragmatic breathing and relaxation and guide the practice
4. Encourage the patient to practice the technique on their own

A simple practice of 2 to 5 minutes of calm breathing and relaxation can easily be added to the end of an exercise program. In addition, if a patient is interested and motivated, they can make this an individual practice and take 10 to 30 minutes for calm breathing or other relaxation or meditation practices.

For patients willing to pursue additional breathing or relaxation exercises or mindfulness meditation, there are multiple online resources available. Here are some links to guided relaxation and meditation practices:

- PMSIG member, Nora Stern, MSPT, was closely involved in developing the following guided exercises available free at the Providence Health and Service website. These practices are available in English, Spanish and Russian: <https://oregon.providence.org/our-services/p/providence-persistent-pain/persistent-pain-toolkit/patient-and-families-toolkit/videos-relaxation/>
- PMSIG President, Carolyn McManus, MSPT, MA, has produced four free 10-minute practices available at her website: <https://carolynmcmanus.com/guided-meditations-free-downloads/>
- UCLA offers several free guided meditations, 3 to 19 minutes in length, in English and Spanish: <http://marc.ucla.edu/mindful-meditations>

There are also several popular apps that help patients learn to meditate and relax, time their practices, and track their continued practice over weeks and months. Two free options are:

- Insight Timer
- Smiling Mind

Popular apps that are free initially, but ultimately charge a monthly fee are:

- Headspace
- Calm

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<sup>1</sup> Vachon-Preseau E. The stress model of chronic pain: evidence from basal cortisol and hippocampal structure and function in humans. *Neuroimage*. 2012;63(1):54-62.

<sup>2</sup> Chen X, Green PG, Levine JD. Stress enhances muscle nociceptor activity in the rat. *Neuroscience*. 2011;185:166-73.

<sup>3</sup> Daenen L, Varkey E, Kellmann, Nijs J. Exercise or not to exercise, or how to exercise in patient with chronic pain? Applying science to practice. *Clin J Pain* 2015;31(2):108-114.

<sup>4</sup> Hilton L, Hempel S, Ewing BA, et al. Mindfulness meditation for chronic pain: Systematic review and meta-analysis. *Ann Behav Med*. 2017;51(2):199-213.

<sup>5</sup> Bard C, Sands L. A pilot study of the effectiveness of guided imagery with progressive muscle relaxation to reduce chronic pain and mobility difficulties of osteoarthritis. *Pain Manag Nurs*. 2004;5(3):97-104.

This Clinical Pearl was provided by Bill Rubine, MSPT and Carolyn McManus, MSPT, MA. Clinical Pearls reflect succinct, clinically relevant information drawn from your experience that can benefit patient care but may not be found in the medical literature. We'd love to hear your suggestions. Please send your ideas for a Clinical Pearl to Bill at [Rubineb@ohsu.edu](mailto:Rubineb@ohsu.edu) .