

Complementary Therapies for Managing Chronic Pain

Fueled by recent news coverage focusing on opioid addiction, a heightened awareness of the dangers of overmedicating has led many to revisit the benefits of complementary therapies to manage chronic pain.



By Amy Scanlin, MS

CHRONIC PAIN, defined as lasting three to six months and longer, can be devastating for those who suffer from it. From growing financial costs, to loss of mobility and productivity at work and home, and psychological and family stress, the implications for those impacted are staggering. An analysis of data from the 2012 National Health Interview Survey found an estimated 25.3 million U.S. adults, or 11.2 percent of the population, had pain every day for the preceding three months, and nearly 40 million adults had severe pain.¹

“Pain is the most common reason for seeking medical care,” explains Wendy J. Weber, ND, PhD, MPH, acting deputy director for the National Center for Complementary and Integrative Health (NCCIH) and branch chief for the Clinical Research in Complementary and Integrative Health Branch, part of the National Institutes of Health (NIH) Pain Consortium. “It’s also the most common reason why people turn to complementary and integrative health approaches.”

While complementary therapies are not new, there is a resurgence in popularity thanks to a trend toward a more holistic approach to care, findings at multiple research centers of evidence-based proof of their effectiveness, anecdotal success from friends and blogs and, of course, curiosity about whether something as seemingly simple as breathing can have a positive effect on one's health. "Physician care guidelines are starting to include complementary health approaches when the evidence base is strong that they may provide benefit and are less likely to cause harm than other available treatments," says Dr. Weber. "For example, the American College of Physicians' treatment guidelines for acute, subacute and chronic back pain recommends the use of several complementary health approaches as first- and second-line treatment for these conditions."

Chronic vs. Acute Pain

What is chronic pain, and how does it differ from acute pain? One way it differs is where it resides in the brain. Acute, or temporary, pain appears in areas of the brain associated with damaged tissue that caused the pain, whereas chronic pain resides in the prefrontal cortex and limbic system where memories, emotions and feelings of pleasure reside. One theory about how chronic pain develops is that continuous signals of pain to and from the brain cause anatomical changes and begin to "wear down" nerve pathways on which they travel to the point that one continually senses pain. In essence, although the body has healed, the pain signals continue. It has even been suggested that chronic pain may reprogram how genes in the immune system work.²

As with opioids, complementary therapies such as meditation, relaxation and yoga provide relief by deadening the sensations of pain. It is believed that pain needs an audience, and when the brain is unable to focus on pain, a person no longer feels it, or feels less of it. Complementary therapies can retrain the body and mind to refocus away from the pain.

Many find comfort by adding complementary therapies to their routine. Although the combination of types of therapies and possible pharma interventions differ from person to person, the ultimate goal is improved quality of life and reduced pain levels. How that happens is very individualistic. "What works depends on the individual," explains Penney Cowan, founder and chief executive officer of the American Chronic Pain Association. "Their needs, what is offered and available to them, their personal motivation, their support at home. We talk a lot about personalized medicine, and healing is not one-dimensional."

Movement Therapies

Overwhelmingly, most who suffer from chronic pain are encouraged to keep active within their pain limits and to strengthen, stretch and improve their cardiovascular systems. While working through the pain of movement, at least initially, may seem counterintuitive, a lack of mobility leads to weaker and tighter muscles making movement even less comfortable. Cardiovascularly, the health risks of not exercising are equitable across the board — chronic pain or not. Inactivity compounds many problems and increases pain and health risks in the long run.

With movement therapy, healthcare providers conduct an initial health assessment, and then encourage individuals to take a multitiered approach. Individuals learn what types of movements are encouraged, how to perform them safely and why they are beneficial. Knowledge is power, and understanding their importance provides an extra incentive to keep going on tough days.

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Movement therapy can take many forms, from simple walking to aquatic exercise and mind-body movements such as tai chi and yoga. Water is a particularly comfortable environment for those who feel pain due to hydrostatic pressure and buoyancy that eases pressure and lessens impact on joints. Mind-body techniques such as yoga and meditation have recently been acknowledged as having a suggested causative link in reducing gray matter degradation in those with chronic pain.³ And, there are a number of gentle movement therapies that are generally considered safe for self-managing pain if performed appropriately.

Fortunately, fitness and recreation centers offer both aquatic exercise and mind-body programs, and experts at these facilities can help individuals choose an appropriate class. Class instructors can help with movement adjustments to make sure the exercises are comfortable and safe. Individuals are encouraged to communicate health concerns to instructors prior to the start of

class, which will allow them to offer modified movements as necessary.

It is common to feel new discomforts when starting an activity, and those with chronic pain may feel them more intensely. As such, some may be tempted to cease activities before the real benefits kick in. If this occurs, individuals should speak with a healthcare professional, physical therapist or exercise professional trained in working with those who have chronic pain to understand if new pain is a normal, short-term result of the exercise; simple stiffness that can be corrected with improved range of motion; or something else such as a compensatory movement (i.e., inadvertently favoring one side of the body to protect the other), which leads to new types of pain or pain in new areas.

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Passive Therapies

The brain can also be retrained to reduce focus on pain with passive techniques that require no physical energy expenditure and that can create new, pain-free pathways for nerve impulses to travel through.

Meditation, particularly mindful meditation, has been shown in numerous studies to have a positive impact in lessening chronic pain by as much as 60 percent to 90 percent, and this is true of both seasoned and beginning meditation practitioners.⁴ By slowing down the mind and focusing on something as simple as breathing, individuals can alter pathways that send pain signals to the brain, as well as alter memories of that pain. Mindful meditation is also helpful in relieving the anxiety and depression that often accompany chronic pain. There are many ways to practice meditation, either solo or in a group setting, and many different types of it. When starting out, it is important for individuals to remember the mind will wander, and that is OK. When it does, individuals can bring the focus back to the

breath, mantra, guided imagery, etc. With time and practice, focusing becomes easier, and the benefits are even greater. Many meditation apps, CDs and classes are available.

Virtual reality is also being studied as a method for managing chronic pain. Though fairly new, it is being successfully used in a number of settings, and results are lasting, in some cases, as long as 48 hours. One such virtual reality game is SnowWorld. Although it was originally designed to help with acute pain, some patients with chronic pain are also finding relief. Much like the principles of yoga and mindful meditation, it helps individuals to refocus away from pain with an analgesic effect that eliminates pain's audience. According to researchers, the more "into" the game an individual is, the better the result. Because the technology is so new, there are no long-term studies to demonstrate effectiveness, but there is hope for continued good results over the long term.⁵ It wouldn't be unreasonable to speculate that some may find similar distractions and benefits while playing other virtual reality games. For instance, the game Tetris was found to lessen the effects of post-traumatic stress disorder by distracting from the trauma.

Other passive modalities can also help. "Spinal manipulation and massage appear to be as effective as other therapies commonly used for chronic low-back pain, such as physical therapy, exercise and standard medical care," says Dr. Weber. Performed by chiropractors, osteopaths and physical therapists, spinal manipulation involves a variety of techniques, depending on the practitioner, and has been recommended since 2007 by the American College of Physicians and the American Pain Society as one of several treatment options to consider when pain does not improve with self-care. Individuals interested in spinal manipulation can ask their healthcare provider for recommendations and should always seek a board-certified practitioner.

Emotional and Social Support as Therapy

Equally important as physical pain is the emotional pain that can accompany it, as is the feeling of isolation as pain limits individuals' ability to enjoy leisure and professional endeavors. "We identify ourselves by what we can accomplish in a day, and pain takes that away. That's depressing," says Cowan. "It takes away our ability to function; it prevents us from doing activities we love." Even family members of those with chronic pain face these challenges, adds Cowan. They have all the same experiences, except for the pain, and they need validation, too.

The challenge of treating chronic pain along with anxiety or depression is often met with a combination of complementary and psychological therapies. Cognitive behavioral therapy

(CBT), a form of psychotherapy that treats problems and boosts happiness by modifying dysfunctional emotions, behaviors and thoughts, is the most widely used psychological intervention for chronic pain. And, CBT's acceptance and commitment therapy (ACT) approach, which uses the insights of mindfulness training, is showing particular success. Those who participate in ACT tend to have more psychological flexibility and are more engaged with managing their pain therapy, resulting in less pain-related anxiety, depression and social isolation.⁶

Again, seeking a referral to a mental health specialist from a healthcare provider can help to find someone who is a good fit. Other options may be found through departments of public health, places of worship and referrals from friends.

The Hard and Anecdotal Science

Just because something is complementary or trendy doesn't mean it is safe and effective for all. Medications, health status and pregnancy are just a few factors that can influence which type of therapy individuals should try and how effective it will be. Close coordination with a healthcare provider, physical therapist, personal trainer and/or counselor will help to ensure that whatever therapies are tried, the road to improvement will be safe and effective.

The NCCIH has been studying integrative health approaches since 1998, both at its NIH intramural laboratories in Bethesda, Md., and through research grants funded around the country, that aim to build an evidence base for the effectiveness and safety of complementary approaches for chronic pain management.

Some conditions for which complementary therapies are showing promising results are:⁷

- Fibromyalgia: Tai chi, yoga and mindfulness have potential therapeutic benefit; however it is still uncertain if the same can be said for acupuncture.
- Osteoarthritis in the knee: Tai chi is showing promise.
- Severe headaches and migraines: Relaxation techniques are showing effectiveness.
- Low-back pain: Tai chi, acupuncture, spinal manipulation and massage may provide benefit.

Personal preference is often the first consideration when deciding which complementary therapy to try, says Dr. Weber, although she hopes future research will help guide that decision-making process. "Discussing options with your healthcare provider is important to make sure that the approach you want to try is safe for you," she explains. "Giving a provider a full picture of what you do to manage your health will help ensure coordinated and safe care. Ask the practitioner if they have

experience working with your pain condition, and find out about their training and experience. Overall, it's important to learn about the complementary health approach or product being considered — especially the scientific evidence of its safety and whether it works."

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How does one know if it's working? It takes time, and "working" will mean different things for different people. "If you have been sitting in a chair for a couple of years, it will take a while to get back," says Cowan. "Everyone is looking for a formula, but give something a chance." If it doesn't seem like it's working, she adds, individuals should talk to a provider to see what else can be done.

Although there are too many complementary options to cover in this article, the take-home message is no matter what method is tried, treating the whole person is what will ultimately lessen chronic pain. Getting back out and enjoying life is not a quick fix, it is a long-term, active solution that must be tended to diligently and carefully. ■

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