Mind-Body Paths to Managing Cancer Pain

Solid evidence supports integrative care, such as acupuncture, yoga and cryotherapy, to ease chronic pain for cancer survivors.

March 11, 2024 By Bob Barnett

Cancer often announces its presence with pain. Eric Tandberg, 59, who lives near Seattle, had eight compression fractures when his smoldering multiple myeloma became active in 2010. “A fentanyl patch was the only thing that could address the pain,” he remembers. But in 2020, after the cancer returned, the treatment left him with chemotherapy-induced peripheral neuropathy (CIPN), a type of nerve damage (see Basics: Neuropathy Pain). “My feet had a little tingling but later started to hurt real bad,” he says. “Even soft slippers were painful.” Tandberg took medication to help with the pain, but he also tried acupuncture twice a week for three weeks and then weekly as maintenance. “Over six weeks, my pain went away, though I still have some numbness and tingling,” he says. “My wife and I can now take two-and-a-half-mile walks.”

“For neuropathy, pharmacological approaches have shown limited success to date,” says Yale School of Medicine oncologist Maryam Lustberg, MD, MPH, president of the Multinational Association of Supportive Care in Cancer. “Integrative modalities, such as acupuncture and massage, are very much needed.”

Nearly a third of all cancer patients experience CIPN that lasts at least six months after treatment ends. Most breast cancer patients receive aromatase inhibitors to protect against recurrence, and about half of them experience joint pain a year later and beyond. Even immunotherapy, which can replace more toxic chemotherapy, can lead to arthritis-like pain.

“There is evidence, now for decades, that non-pharmacological approaches to cancer pain are helpful, and now we have multiple guidelines,” says Lorenzo Cohen, PhD, director of the Integrative Medicine Program at the MD Anderson Cancer Center in Houston. Even if these therapies don’t work on their own, he says, painkiller dosages may still be reduced—“the true concept of integrative care.” Cohen practices what he preaches: About five years ago, when he had lymph nodes surgically removed to treat melanoma, he scheduled acupuncture for the next day and ramped up his yoga practice.

In 2022, the Society for Integrative Oncology (SIO) and the American Society for Clinical Oncology (ASCO) collaborated on the guide “Integrative Medicine for Pain Management in Oncology.”

(Education modules are available at IntegrativeOnc.org.) It concluded that the following therapies are evidence-based when used for these indications:

- Aromatase inhibitor–related joint pain: acupuncture, yoga
- General cancer pain or musculoskeletal pain: acupuncture, acupressure, reflexology, massage, Hatha yoga, guided imagery
- CIPN: acupuncture, reflexology, acupressure
- Procedural or surgical pain: acupuncture, hypnosis, music therapy
- Pain during palliative care: massage.

Acupuncture & Cryotherapy

“There is robust evidence of acupuncture for chronic non-cancer pain and, in the last 15 years, for cancer survivorship,” says Jun Mao, MD, chief of the Integrative Medicine Service at Memorial Sloan Kettering Cancer Center in New York City and lead author of the SIO/ASCO guide. By stimulating the brain to release neurotransmitters, including endorphins and dopamine, acupuncture can provide immediate pain relief, he explains. But by sending signals to the limbic system, which is involved in cognition, it can help rewire the brain. “Chronic pain can be a learned phenomenon,” he says. “Acupuncture helps you unlearn pain.” This therapy works for about 60% to 70% of people who try it. Often, six to 12 sessions are required, but acupuncture can have long-lasting effects. A related therapy, acupressure, involves applying pressure to specific points on the body.

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With little risk of side effects, acupuncture can be safely combined with other approaches. To prevent CIPN, cryotherapy “is starting to be standard of care at different institutions,” says Heather Greenlee, PhD, MPH, founder and medical director of the Integrative Oncology Program at Fred Hutchinson Cancer Center in Seattle. Cryotherapy involves cooling the hands and feet during chemotherapy infusions to restrict small blood vessels so that toxic agents don’t reach peripheral nerves. It can be as simple as holding an ice bag during infusions, but special cooling gloves and socks are available (See Good Stuff). Greenlee is studying cryotherapy plus acupuncture for colorectal cancer patients.

Exercise

Physical activity during and after treatment has many benefits, including managing pain. “Being more active during treatment reduces the risk of neurotoxicity and helps with a host of other symptoms,” says Lustberg.

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Scott Capozza, PT, a physical therapist at Smilow Cancer Center who is board-certified in oncology, was a competitive runner when he was diagnosed with testicular cancer 25 years ago at age 22. He ran the Boston Marathon within the year. Today, he helps cancer patients manage all kinds of pain and often starts with belly breathing exercises. “I can get someone from an 8 to a 4 [on a 10-point pain scale] just by focusing on breathing,” he says. Then he’ll move to gentle exercises—including cardiovascular and strength training—tailoring them to the patient’s needs and treatment schedule. For people with joint pain, he’ll teach a new wake-up routine, including stretching ankles, feet, knees and hips in bed. “It takes two minutes to ‘lubricate’ your joints to decrease pain with mobility,” he says. For CIPN, he’ll focus on balance and toe-scrunching exercises to increase circulation in the tiny muscles of the toes. “If you can’t feel your feet, you’re at an increased risk of falls,” he cautions.

If your cancer center doesn’t offer specialists, your regular therapist can easily access shared knowledge on listservs, such as one run by the American Physical Therapy Association’s Academy of Oncologic Physical Therapy.

Massage

According to Memorial Sloan Kettering Cancer Center, massage can help reduce short-term pain after surgery, chemotherapy or radiation. Massage can also help lower anxiety and depression, improve sleep and help you cope with your situation. Your cancer center may have a list of massage therapists who have experience with cancer patients. For self-care, Greenlee recommends Me Time Acupressure, an app developed at the University of Michigan and tested for cancer patients; it’s free on Apple and Google.

Music Therapy

If your nurse puts on “The Blue Danube” waltz before a procedure to help you relax and reduce postoperative pain, that’s music medicine. Listening to enjoyable music can stimulate pain-relieving brain neurochemicals, says Drexel University music therapy professor Joke Bradt, PhD.

Music therapy goes beyond listening to prerecorded music. Whether used in a one-on-one session or in a group with a board-certified music therapist, music can address factors that exacerbate your pain, such as stress, anxiety, depression and loneliness.

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“People with cancer may be invited to engage in active music-making, such as singing with the therapist or playing instruments, to explore stressors and express feelings,” says Bradt. “They also learn music-based strategies for self-management of symptoms at home.” In her 2023 study working with people with advanced cancer, six sessions of music therapy helped people feel more in control of their pain, which in turn reduced pain intensity and the degree to which pain interfered with normal activities.

Most of the National Cancer Institute–designated cancer centers offer music therapy, but if yours doesn’t, ask for a referral or search on the American Music Therapy website (MusicTherapy.org). If you can’t access or afford therapy, you can still use music. “Pay attention to how music makes you feel so you can use it to manage pain,” says Bradt. “Create an inventory so you can call on music when you need it.”

Mindfulness Meditation

Linda E. Carlson, PhD, a professor of psychosocial oncology at the University of Calgary in Canada, was already practicing Buddhist meditation in graduate school when she learned about Mindfulness-Based Stress Reduction (MBSR), an evidence-based program that improves depression, anxiety and chronic pain. In 1998, she and colleagues adapted the approach for their cancer patients at the Tom Baker Cancer Centre at the University of Calgary, creating Mindfulness-Based Cancer Recovery (MBCR). Relaxation is part of mindfulness training through MBCR, but so is breaking down fear of pain.

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“Resistance to pain magnifies the suffering,” says Carlson. You may fear that you won’t be able to tolerate the pain, which can actually intensify pain. By paying attention, you may realize that pain shifts, changes, comes and goes. “In a lot of studies, when we ask people with cancer how mindfulness meditation affects their pain, they say, ‘Well, I still have the pain, but it doesn’t interfere with my life as much.’”

Many cancer centers offer mindfulness meditation; some offer MBCR. One guide is Carlson’s home-study book, Mindfulness-Based Cancer Recovery: A Step-by-Step MBSR Approach to Help You Cope with Treatment and Reclaim Your Life (MindfulCancerRecovery.com). She also recommends the app Insight Timer, which is available for free and has a range of guided meditations. “Yoga and tai chi help with physiological and mental relaxation too, and talking with a counselor or joining a support group can help you understand how stress is affecting your body,” Carlson says.

Yoga

Leigh Leibel, a certified yoga therapist who works with people with cancer at Columbia University’s Irving Medical Center in New York City, was already practicing yoga when she was diagnosed with cancer in 2016. “I got the best medical treatment, but it was grueling,” she says. Yoga helped her manage stress and calm her mind. When she finished chemotherapy, she studied yoga therapy and cancer at S-VYASA, a higher education yoga institution in Bangalore, India, where she is now getting her PhD. “The beauty of yoga,” says Leibel, coauthor of Yoga Therapy Across the Cancer

Care Continuum, “is that it can help teach you the tools to manage your stress at any stage of cancer.”

For cancer pain, the 2022 SIO guide recommends Hatha yoga, a gentle form that combines breathing, movement and meditation. “You can learn the tools of yoga and do them at home,” says Leibel. She has taught people how to use them during MRI scans and chemotherapy infusions.

Most yoga teachers have 200 hours of training, and yoga therapists, who have at least 1,000 hours, can complete additional cancer education. To find a yoga teacher, check Yoga Alliance (YogaAlliance.org). To find a yoga therapist, search the International Association of Yoga Therapists website (IAYT.org). Each type of yoga has a role, says Leibel. If you have, say, CIPN, aromatase inhibitor joint pain or bone metastasis, an oncology-trained yoga therapist is appropriate, “whereas a yoga teacher with cancer training would be beautiful to work with in a community yoga studio or a YMCA if you’re a cancer survivor who doesn’t have complex conditions or risk factors.”

An Inclusive Model

Integrative cancer care is becoming more available, especially at major cancer centers, but there is a long way to go. In 2006, Julie Deleemans, then a high school senior in Ontario, Canada, was diagnosed with Stage IV laryngeal cancer and had surgery (removal of her larynx, thyroid and several lymph nodes), chemotherapy and radiation. She had severe head and neck pain but wasn’t referred to any supportive care. “After four years of depression, anxiety, PTSD and bouts of suicidality, I decided no one was going to save me, so I had to save myself,” she says. She learned MBCR, improved her nutrition by eating more high-fiber plant-based foods and started receiving massage therapy and acupuncture treatments. She exercises and practices yoga daily. Deleemans’s pain is now under control—“a 1 or a 2,” she says. In 2022, Deleemans completed her PhD in psychosocial oncology, with a focus on integrative oncology, but she says, “I wish I’d had the supportive care I needed right after treatment—it would have prevented a lot of suffering.”

Although half of all people with cancer use integrative care, there are significant health disparities. Even proven approaches may not be covered by insurance. Surveys reveal that people who seek integrative care are more likely to be well-educated, employed, insured, white and female; practitioners, too, are more likely to be white, heterosexual, woman-identified and nondisabled, according to an SIO survey.

Cancer survivor Marsha Banks-Harold, an engineer and certified yoga therapist and trainer specializing in trauma care, is the owner of PIES Fitness Yoga Studio. One reason she opened the studio is her experience as a large African-American woman whose great-grandmother was enslaved. “I didn’t experience feeling welcome going into yoga studios,” she says. “PIES studio is a great place if you’re dealing with cancer, dealing with pain, large-bodied, LGBTQ+, a child, older, Black, Indigenous or any person of color,” she says. “Because I am the face of the studio, people feel safe.”

“Every patient should be treated based on evidence-based guidelines for integrative care,” sums up Cohen, the integrative medicine specialist at MD Anderson Cancer Center. “It should be part of the standard of care wherever you are treated. As a society, we need to do more. With integrative care, patients will go through the process better and, in the end, may come out even healthier than they were before they were diagnosed.”

SIDEBAR STORY:

Can Cannabis Ease Pain?

In 1993, explorers unearthed the 2,500-year-old body of a woman near Russia’s border with China. Preserved in permafrost, the remains showed evidence of metastatic breast cancer. She had been buried with cannabis.

In the United States today, between 25% and 40% of people with cancer use cannabis, most often to manage pain, anxiety or both. Yet you won’t find cannabis recommended in official guidelines for pain. “The problem is, we don’t have a lot of data to base our recommendations on,” says Heather Greenlee, PhD, MPH, founder and medical director of the Integrative Oncology Program at Fred Hutchinson Cancer Center in Seattle. One reason is that research into potential benefits is still largely illegal due to federal law.

Integrative oncologist Donald Abrams, MD, a professor emeritus of medicine at the University of California San Francisco who practices at the Osher Center for Integrative Health, is more positive. “All animals have an endogenous cannabinoid system, and there’s good evidence that its purpose is to help us forget pain,” he says. “Cannabis is very useful in the treatment of pain.” Abrams has been an oncologist for 40 years; in the 1990s, he helped people with AIDS manage neuropathy pain, which convinced him of the botanical’s analgesic effects. For cancer-induced peripheral neuropathy, he says, using cannabis before chemotherapy may reduce neuropathy risk based on data from an Israeli observational study. He generally recommends whole cannabis—as a tincture or inhaled through a bong or vaporizer—rather than vaping an oil.

While randomized controlled studies may be lacking, many oncologists already recommend cannabis. In one survey of 400 oncologists, 67% reported that cannabis is “useful as an adjunct for pain management.”
