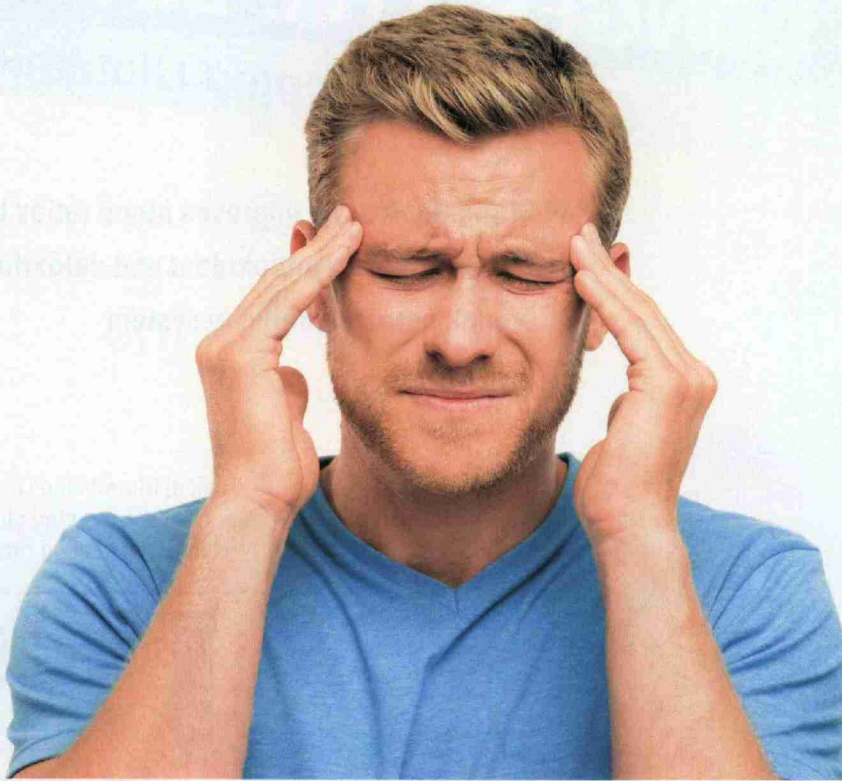


Good Health LIFESTYLES



SOLVING THE PAIN PUZZLE

A whole body approach to easing suffering

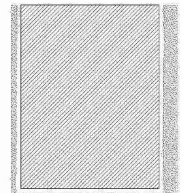
by Jacob Teitelbaum, MD

In today's fast-pace world, no one's got time for pain. So we pop some aspirin to stop a headache, reach for the naproxen to ease arthritic joints, or grab a couple ibuprofen to soothe sore muscles. While the aisles of your neighborhood drug store yield plenty of over-the-counter options to temporarily interrupt everyday aches and pains, those with chronic pain often turn to prescription pain killers for relief. But routinely taking medication for pain doesn't come without a cost.

Among the most popular pain relievers, non-steroidal anti-inflammatory drugs (NSAIDs) like aspirin or the prescription drug diclofenac work by blocking both COX-1 and COX-2 enzymes, temporarily reducing inflammation and pain. But

long-term NSAID use can cause gastrointestinal problems, including ulcers and intestinal bleeding. Studies also show that they may increase the risk of heart attack or stroke. Side effects are so common that the *American Journal of Medicine* reports that more than 100,000 people are hospitalized each year due to complications from NSAID use.

Doctors also frequently choose to treat chronic pain by prescribing a narcotic like the opioids Vicodin or Percocet instead of searching for the fundamental cause. Yet these narcotics have the potential for moderate-to-severe stomach upset and can interact with alcohol or other medications. And, while they can offer temporary relief, they can leave you with a long-term



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addiction. Fortunately, there are a host of natural alternatives that can safely reduce both the pain and the underlying inflammation.

Eat Away Inflammation

The typical American diet is filled with foods that promote inflammation, including sugar, overly processed convenience foods, and refined carbs. Extinguish systemic inflammation by opting for antioxidant-rich fruits and vegetables, and healthy fats like those found in avocados, olives, and nuts. Balancing your intake of omega-6 fatty acids and omega-3s is key. According to Artemis Simopoulos, MD, president of the Center for Genetics, Nutrition, and Health in Washington, D.C., most Americans consume a diet that

TIP: Avoid foods high in sugar or high fructose corn syrup. Why? That chocolate chip cookie or handful of M&Ms can cause a rapid rise in blood sugar. This, in turn, can trigger a pro-inflammatory response. Over time, a diet high in sugar can lead to chronic inflammation that can incite or worsen pain. Satisfy your sweet tooth safely by trading in those sugary treats for naturally sweet fruits packed with pain-taming antioxidants.

typically contains 20 to 30 times more omega-6 than omega-3 fatty acids. This imbalance can contribute to chronic inflammation. However, striving to consume more omega-3s can bring you closer to a healthful ratio of 4:1. Your primary sources for both omega-3 and omega-6 fats should be organic, unrefined oils such as olive oil and avocado oil, raw milk and butter, free-range eggs, grass-pastured beef, wild-caught fatty fish, and whole seeds. Oils and fats you should avoid include corn, canola, soy, and margarine.

Get Enough Sleep

Getting seven to nine hours of sleep each night allows your body tissues and joints the time they need to repair. It can also help you manage stress.

When you are well rested, you can tackle your problems better and lower your risk for illness. Yet, among those who report experiencing chronic pain, approximately 65 percent report having sleep disorders, such as disrupted or non-restorative sleep. If pain keeps you up at night, try taking one or two 20- to 30-minute "power naps" during the day.

Workout Your Pain

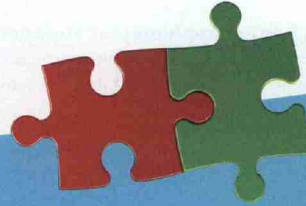
Exercise stimulates the release of endorphins, the body's own feel-good hormones. Endorphins also help your body produce GABA, a neurotransmitter that inhibits pain. But if you suffer from arthritis, muscle pain, or a chronic pain syndrome, take care so you don't overdo it. Talk with your doctor about what types of physical activity are best for your personal situation. A gradual and gentle exercise program such as yoga, tai chi, or water-based exercises often works well for people with long-lasting muscle and joint pain.

Decompress Stress

Stress and pain are often linked. Headaches, neck pain, and tense muscles are all familiar signs of feeling stressed. On the flip side, chronic pain can make you anxious and tense, setting the stage for an uptick in stress hormones and a greater perception of pain. Chronic stress can foster inflammation and muscle tension which create fertile ground for even more pain. A recent study in the journal *Brain* also found that people with chronic pain have higher levels of the stress hormone cortisol, which may explain the vicious pain-stress cycle. But learning to manage your stress may help to lessen your pain. Relaxation techniques such as deep breathing, guided imagery, and meditation can also decrease the emotional and physical impact stress has on your body.

The Power of Touch

From massage to chiropractic therapy, touch and physical manipulation can relieve stress-related pain, a pinched nerve, or a compressed spinal disc. A recent study involving 400 people with chronic low back pain demonstrated that a weekly hour-long massage



The Inflammation Link

Chronic pain can be caused or worsened by inflammation—a response by the immune system to injury. When you are injured, the body responds with COX-2—an enzyme that speeds up the production of certain chemical messengers called prostaglandins that play a key role in promoting inflammation and increase the sensitivity of pain receptors. While this can be a good thing in the short-term and aid in healing an injury, chronic low-level inflammation is thought to contribute to chronic pain. In one study, published in the *Journal of Neuroscience*, researchers at the University of Toronto discovered that inflammation increases a protein responsible for persistent pain. This may cause the brain to remember and mimic the pain long after the source or stimulus has been removed. Other research suggests that chronic inflammation in the brain may be an underlying cause of persistent pain. Making matters worse, many modern lifestyle choices—a diet high in pro-inflammatory foods, sedentary habits, smoking, and alcohol abuse—can prolong pain by stoking the fires of low-level inflammation throughout the body.

reduced pain and increased the ability to maintain daily activities. Another review featured in the *Journal of Manipulative Physiological Therapeutics* found that chiropractic manipulation was more effective than conventional treatments in those with neck pain.

Get Some Supplemental Support

The following herbs and nutrients can alleviate the pain and inflammation for a variety of conditions.

CURCUMIN: Because inflammation is an underlying cause of pain, taking action to tame low-level swelling is a smart move. But instead of relying on NSAIDs, try curcumin, the compound in the curry spice turmeric that is responsible for its vibrant yellow hue. Because of its potent anti-inflammatory properties, a growing number of studies suggest that curcumin not only reduces inflammation, it may even help to preserve the integrity of spinal discs in those suffering from back pain and protect the structure of joints in those at risk of osteoarthritis. During a randomized clinical trial involving 28 adults with moderate osteoarthritis of the knee, a proprietary combination of curcumin and boswellia was compared to the prescription drug Celebrex over the course of 12 weeks. Half of the participants were given the herbal supplement and the other half got the drug. At the end of the study, researchers found that, while both groups experienced comparable improvement in their range of motion and in the sensation of bone-on-bone friction, those taking the curcumin/boswellia supplement reported better pain relief and improved walking distance. And the herbal supplement was better tolerated than the drug by the study participants. This led the researchers to conclude that the combination of curcumin and boswellia yielded safer and superior results compared to Celebrex for active osteoarthritis.

But standard curcumin supplements are notoriously difficult to absorb because they lack solubility. Curcumin is also quickly metabolized in the gastrointestinal tract and shuttled out of the body. Fortunately, researchers have developed a very unique form

of curcumin with greatly enhanced bioavailability. This distinctive formulation, known as BCM-95, is created by combining curcumin with turmeric essential oils—a strategy that increases absorption into the bloodstream 10-fold and boosts blood retention 7-fold compared to standardized curcumin supplements.



BOSWELLIA: The active compounds in boswellia are known as boswellic acids, and the most important is acetyl-11-keto-beta-boswellic acid (AKBA). AKBA modulates 5-LOX, an enzyme that activates inflammation-inducing molecules known as leukotrienes. One randomized, double-blind, placebo-controlled crossover study involving 30 patients with osteoarthritis found that supplementing with boswellia for eight weeks led to decreased knee pain, increased knee flexion, and increased walking distance. The study, which appeared in the journal *Phytomedicine*, noted that the frequency of swelling in the knee also lessened. Boswellia not only blocks the formation of leukotrienes, it is one of the rare herbs that decrease elastase, an inflammatory mediator found to be elevated in those with fibromyalgia. But, like curcumin, boswellia is not well absorbed by the body. Luckily, a special bio-enhanced

boswellia extract has been developed. This novel boswellia, known as BosPure, is standardized to provide at least 70 percent boswellic acids, including 10 percent AKBA. It's proven so effective that researchers report that combining BosPure boswellia with BCM-95 curcumin delivers even better results than the arthritis drug celecoxib.

DLPA: The amino acid, DL-phenylalanine (DLPA) eases pain by blocking the enzymes that break down endorphins and enkephalins, the body's natural pain-killing chemicals. In 20 patients with longstanding pain, most reported that their pain was cut in half after taking DLPA for just two weeks. Other research shows that DLPA helps reduce chronic pain associated with migraines, multiple sclerosis, and fibromyalgia by stimulating nerve pathways in the brain that control pain. It's so effective that a clinical trial by French researchers discovered that it alleviates the pain often experienced by late-stage cancer patients.

NATTOKINASE: Increasing circulation provides critical oxygen and nutrients to reduce pain in joints and relax sore muscles, ligaments, and tendons. Better blood flow also decreases muscle spasms and can increase your range of motion. Nattokinase, a highly purified enzyme produced by fermenting soybeans, is a potent fibrinolytic (anti-blood clotting) agent that promotes blood flow to painful tissues. This is especially beneficial for the pain of peripheral artery disease and other painful circulatory conditions. ■



Jacob Teitelbaum, MD, is a board-certified internist and an expert in chronic pain. He is the author of numerous books and booklets, the most recent being the *Better Nutrition Healthy Living Guide, Conquer Chronic Pain.*"