

heat, to injuries. That's the little secret behind how I use my far infrared heating pad... it doubles as a cold pack!

Since my heating pad easily wraps around a leg, knee, shoulder or other injured area, I keep mine in the freezer so it's ready to go as a cold pack in an instant.

If I get too carried away during my Muay Thai workout or get some other injury, I grab it from the freezer and wrap it around the injury.

Its jade stones retain and transfer cold just like they retain and transfer far infrared heat and easily wrap around an injury so I never have to thaw a bag of frozen vegetables trying to ice a banged-up knee or sprained ankle again.

And I use the built-in Velcro strap to hold the cold... or heat... exactly where I need it.

If I need cold, I grab it from the freezer. When I need heat, I simply plug it in and turn it up. In minutes I get the deep, soothing heat I'm looking for.

When you want deep penetrating, soothing heat, you just can't beat far infrared. And by using the same pad for cooling you get the best of both worlds in one device. Highly recommended!

References

Vatanserver F, Hamblin M. Far infrared radiation (FIR): its biological effects and medical applications. *Photonics Lasers Med.* 2012 Nov 1; 4: 255–266.

6 Ways to Break the Cycle of Chronic Pain

Dr. Todd A. Born, ND, CNS



Pain is considered chronic when it lasts for weeks, months and even years. Etiologies include trauma and conditions such as arthritis, cancer, infection, degenerative disc disease and neuropathies. Common complaints are headaches, low back pain, arthritis and neurogenic pain (pain that results from damaged central nervous system or peripheral nerves).

According to the American Academy of Pain Medicine, more than 1.5 billion people worldwide suffer from chronic pain. In 2016, the Centers for Disease Control (CDC) estimated 20.4% of U.S. adults had chronic pain (defined as pain most days or every day in the past six months). That equates to more than 50 million Americans. What may be even more concerning is the fact that the 2016 National Survey of Children's Health

reported a 6% prevalence of chronic pain among U.S. children.

How does chronic pain impact quality of life? The National Institutes of Health (NIH) survey revealed that almost two-thirds (59%) of respondents reported deleterious impact on their overall enjoyment of life. More than three-quarters (77%) reported feeling depressed; 70% said they have trouble concentrating; 74% said their energy level is impacted by their pain; and 86% reported an inability to sleep well.

Chronic pain is a very complex and difficult health concern to treat. One reason is that the longer it goes on, the more systems become affected, along with many people experiencing the phenomenon of pain sensitization syndrome.

This is when even mildly noxious stimuli activate receptors and cause more pain. This can happen to the point where pain can be constant even without a triggering event. It can also increase in intensity and in other regions of the body.

Pharmaceutical strategies include non-steroidal anti-inflammatory drugs (NSAIDs), acetaminophen, topical and oral steroids, narcotics, opioids (in the class of narcotics), anticonvulsants and antidepressants. These may help with acute pain but are not very effective with chronic pain, and the side effects tend to be worse than what they are treating.

A lot of people take acetaminophen because they think it's safe. When the maximum recommended dose is not exceeded, it relatively is. However, it must be used at high doses for effective pain control, and it is often combined with other medications. Thus, it is easy to overshoot the maximum amount in a 24-hour period. Acetaminophen toxicity is the number one cause of acute hepatic (liver) failure in the U.S. I saw this a few times during my rotations in the emergency department. The treatment is N-acetyl-cysteine (NAC), which naturopathic physicians use all the time for other health issues!

NSAIDs such as ibuprofen (Advil, Motrin) have cardiovascular and gastrointestinal side effects, including ulcers and GI bleeding. Oral steroids suppress the immune system, leaving one more prone to infection. They also have blood sugar regulation issues and can cause insomnia, bone loss and thinning of the skin, which in turn can cause easy bruising and bleeding along with swelling.

Narcotics may make people extremely tired, constipated and spacy. They are also highly addictive, and the body builds tolerance to the medications, thus causing the individual to have their dosage increased and typically more medications added to address the chronic pain.

Anticonvulsants (e.g., gabapentin and pregabalin) have common side effects of constipation, difficulty walking or controlling muscle movements, nausea, slurred speech, tremors and weight gain.

Antidepressants can cause nausea, increased appetite and concomitant weight gain, sexual side effects, fatigue, drowsiness, insomnia, dry mouth, blurred vision, constipation, dizziness, agitation, restlessness and anxiety.



In my experience, by the time patients seek out a naturopathic physician they are usually on a combination of the aforementioned medications, which normally are not working very well and/or the side effects are too debilitating. My treatment strategies are usually two-fold: 1) decrease the side effects of the medications, and 2) target pain management so the drugs work better and therefore can be decreased or discontinued.

The science and mechanisms of how natural therapeutics address chronic pain are beyond the scope of this article. Instead, I will discuss ways to address chronic pain from a therapeutic order standpoint — i.e., least invasive/least forceful interventions first, drugs and surgery last. My patients have usually been dealing with chronic pain for many, many years. This necessitates being very aggressive with natural agents to get ahead of the pain, and then gradually decreasing them.

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Diet

If you're overweight, attempting to lose those extra pounds is a must. Every case of chronic pain I've ever seen has involved a food sensitivity or intolerance. Therefore, it is prudent to put patients on a gluten-free, casein-free, allergy elimination diet. This involves removing many "usual suspects" of food intolerances for two to three weeks. Then they are systematically challenged every 72 hours to see if there is a reaction. A reaction can take on almost any form, from irritability to sleep issues to increased pain. Studies have shown that the allergy-elimination diet can lead to a 30-40% reduction in chronic pain.

Stretching, Exercise, Physical Therapy, Massage Therapy, Chiropractic Care and Acupuncture

I'll lump these together for simplicity. Exercise – even a little – is a must. More movement equals less pain. The rationale is two-fold: 1) endorphins are released that improve mood and decrease pain, and 2) studies consistently show that sedentary lifestyles exacerbate pain.

Physical therapy and massage can help strengthen bones, ligaments, tendons and fascia (fibrous tissues that surround muscles and groups of muscles). Chiropractic therapy is based on the premise that musculoskeletal dysfunction is from misalignment of the spine. Clinical trials have shown chiropractic treatments to be superior to placebo and medication in the treatment of low back pain.

Acupuncture has been around for thousands of years in Asia. It has been proven effective in hundreds of clinical trials and is now used in many hospitals and pain clinics throughout North America to treat pain. In 2017, the American College of Physicians low back pain guideline

recommended to include spinal manipulation along with heat, massage and acupuncture as first line interventions for chronic low back pain.

Mind-Body Medicine and Yoga

Most people with chronic pain also end up suffering from depression. Clinical trials have shown that craniosacral therapy, talk therapy, counseling, meditation, etc. can reduce depression as well as the pain, along with helping to decrease dependence on medications. Yoga can help with balance, stress, pain and the insomnia that usually accompanies chronic pain.



Homeopathy

Homeopathy is considered an "energetic" medicine which does not interact with other medications, supplements or herbs. Much like naturopathy, it takes a person's physical, mental and emotional picture and puts the pieces together like a jigsaw puzzle to match them to one of about 5,000 remedies – a seemingly daunting task. Although the science and art behind homeopathy are challenging, a good naturopathic physician can usually find the right remedy.

Botanical Medicine

Botanical medicines are very effective in this arena because there are so many, and they cover different actions and types of pain.

Botanicals include anti-spasmodics, anodynes and analgesics (pain relievers), adaptogens (enable the body to better adapt to physical and emotional stress), nervines (calm the nerves), anti-inflammatory, inflammation modulating herbs, etc.

Supplements

Calcium and magnesium are vitally important. Both are involved in muscle contraction and relaxation; calcium more so in the former, magnesium in the latter. In the body they are found in a 2:1 ratio, and that's the way they should be taken in supplements. If you want just the anxiolytic and muscle relaxation portion, magnesium should be taken away from calcium by at least a few hours.

Omega-3 essential fatty acids, mostly derived from fish oils, are crucial in pain management. To be effective, they must be taken in very high doses. This may cause easy bruising and bleeding, and therefore should be supervised by a physician. Furthermore, the oils should be molecularly distilled to be free of contaminants and heavy metals. That is why high-quality fish oil supplements cost more than their low-budget counterparts. Other fatty acids like gamma linolenic acid (GLA) from borage, evening primrose and black current oils are also great anti-inflammatories.

Vitamin D plays a pivotal role as an anti-inflammatory, and it helps the body absorb and utilize calcium and magnesium properly. However, too much vitamin D can lead to kidney stones, bladder stones and arteriosclerosis (hardening of the arteries).

Finally, a tried and true home remedy that is almost always overlooked is Epsom salts. Using three to four cups in a warm, not hot (as this stimulates the nervous and cardiovascular systems), bath for 20 minutes can help in more ways than you can imagine. The magnesium in the salts goes to the muscles for relaxation, and the sulfate from the salts can donate a sulphur

amino acid to aid in liver detoxification.

All of this is just a snapshot into an integrative approach to chronic pain. There are many, many more options. With naturopathic medicine, which is tailored to the individual patient and the specific cause or causes of the pain, much can be done for this complex condition and improve people's lives.

Even One Natural Approach Can Make a Difference

Here is one example of how powerful the tools in a naturopathic doctor's tool chest can be:

When I was a second-year medical student my neighbor injured his knee playing hockey. He was walking with a significant limp and using crutches. His primary care doctor said to take ibuprofen and/or naproxen every few hours for the pain.

Weeks went by and he wasn't any better. He had an MRI which showed some grade two and three tears in his menisci and anterior cruciate ligament. Not surprisingly, an orthopedist scheduled him for surgery. My neighbor knew I was in medical school and asked my advice.

I recommended the only thing I really knew at that point – homeopathic Arnica. He dissolved five pellets of 30C (the strength or potency) in his mouth twice a day for a week. After a few days he wasn't using his crutches. After a week, 90% of his limp resolved. He took it for another week and was completely symptom free.

I don't know if it corrected the damage to the ligaments, but the orthopedic surgeon said to cancel his surgery. He lived near me for another year or so and had absolutely no problems with his knee.

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Surprising Cure for Restless Legs Syndrome?

Jesse Cannone, CFT, CPRS, MFT

Up to 10% of Americans have restless legs syndrome (RLS), a neurological disorder that leads to unpleasant sensations in your legs, including throbbing, creeping or pulling.

There is also an overwhelming urge to move your legs in order to find relief, and since this urge often occurs at night or when you're trying to relax, it can disrupt your sleep and leave you fatigued during the day.

Imagine, you've just gotten into bed for the night, or you're in a movie theater trying to enjoy a movie, or you're into the first hour of a three-hour plane trip – and it starts. A creepy-crawly feeling in your legs, which is also sometimes more like throbbing or itching. Movement, walking or jiggling your legs is the only way to get the sensations to stop so you can have some peace.

Many people with restless legs syndrome also periodically twitch or kick their legs throughout the night, a condition known as periodic limb movement of sleep (this can be disturbing not only for you but also for your partner).

It's unclear why some people struggle with RLS and others do not, but it's thought to be related to an imbalance of the "pleasure chemical" dopamine in your brain. Dopamine is also involved in the control of muscle movement. In fact, some of the medications approved by the U.S. Food and Drug Administration (FDA) to treat

RLS work by increasing dopamine in your brain, which helps to reduce motion in your legs.

The problem is that these drugs carry side effects, including nausea, lightheadedness and fatigue, along with impulse control disorders (such as compulsive gambling) and daytime sleepiness (one of the symptoms many with RLS are trying to get rid of).

Trigger Dopamine Release Naturally to Relax Your Muscles

What if there was a *natural* way to increase dopamine in your brain and help your muscles to relax?

There are several. Exercise, for instance, is known to increase dopamine release. (Have you ever heard of a runner's high?) So does meditation, listening to music and even engaging in hobbies you enjoy, such as knitting, quilting, drawing or photography.

But there's yet another option. Dopamine is closely related to sex. Not only do high levels of dopamine increase sexual desire, but sexual behaviors, and specifically orgasm, also flood your brain with a dopamine release.

The release of dopamine with orgasm is so intense it's like a powerful drug. Writing in the *Journal of Neuroscience*, researchers noted,