

Developing Chronic Pain Treatment Programs With NIR Therapy (Pt. 1)

Rob Berman | DIGITAL EXCLUSIVE

Whenever a person experiences prolonged pain for whatever reason, their immediate need is to seek medical care to get that pain erased or reduced as quickly as possible. So, it is not surprising that "[p]ain is the most common reason for physician consultation in the United States."¹ But it is surprising that so many people across America experience chronic pain.

"In 2016, an estimated 20.4% of U.S. adults (50.0 million) had chronic pain and 8.0% of U.S. adults (19.6 million) had high-impact chronic pain, with higher prevalence associated with advancing age."² An earlier Internet-based survey from 2010 found: "Primary chronic pain was most commonly attributed to lower back pain, followed by osteoarthritis pain."³

Chronic pain continues to be a prevalent and expensive problem on a national level. A study done in 2011 found, "Chronic pain contributes to an estimated \$560 billion each year in direct medical costs, lost productivity, and disability programs."⁴ In today's dollars, that substantial figure would be even higher.

Not only is chronic pain having a large negative effect on the U.S. financially; it is also having a negative social impact. "Pain is a component of many chronic conditions, and chronic pain is emerging as a health concern on its own, with negative consequences to individual persons, their families, and society as a whole."⁵ Chronic pain has been connected to "restrictions in mobility and daily activities, dependence on opioids, anxiety and depression, and poor perceived health or reduced quality of life."⁶

A Great Opportunity for DCs

When it comes to treating chronic pain, specifically chronic musculoskeletal pain, modern medicine's standard procedures are fraught with a wide spectrum of side effects, possible complications and overall risks. "Currently accepted therapies consist of non-steroidal anti-inflammatory drugs, steroid injections, opiate pain medications and surgery, each of which carries their own specific risk profiles."⁷ But more and more people suffering from chronic musculoskeletal pain are becoming wary of these treatments advocated by allopathic medicine, especially taking opiates or undergoing surgery. They are opting instead for a more natural and non-invasive approach. And this presents a great opportunity for chiropractors to offer treatment programs for the chronic pain patient.

The Value of a Multidisciplinary Approach

In order to stand out above the increasing competition, and at the same time provide faster and more effective pain relief to patients, more and more chiropractic clinics are taking a multidisciplinary, comprehensive approach to treating chronic pain, integrating several modalities

into one program.

Many years ago, Mark Shelley, DC DACNB, founder and director of Olympic Spine and Sports Therapy in Edmonds, Wash., realized - during his search for effective treatment for his own injuries - that in order to recover to the fullest degree possible, he needed the expertise of several healing modalities. As a result of his success with this approach, he developed one of the first multidisciplinary injury rehabilitation clinics in the greater Puget Sound area.

His clinic currently combines chiropractic care, spinal decompression, massage therapy, physical rehabilitation, laser therapy, and NIR (invisible near-infrared and visible red light) therapy to achieve faster and more complete results for his patients, most of whom have peripheral neuropathy and chronic spine conditions.

Brian McKay, DC, owner of Core Health in Darien, Conn., has a similar story. "I had a bad back for probably two years. Chiropractic alone was not enough to get it better. So I ended up seeking out other therapies. I learned about lasers; NIR therapy; EMS (electrical muscle stimulation); and ATM2 (Active Therapeutic Movement). I started to find what works. After a while, I did start getting better by using these additional therapies."

Today, Dr. McKay's clinic utilizes all of these therapies in addition to chiropractic care. His clinic also offers massage, physical therapy, and spinal decompression to give his patients "the most thorough non-surgical back pain program possible."

NIR Light Therapy

Although you may not be able to - or wish - to put as many alternative healing modalities on your treatment menu as Dr. Shelley or Dr. McKay, there is one modality both doctors utilize that will serve as a strong foundation for any chronic pain program: NIR (near infrared /red light) therapy, also known as low-level light therapy ("LLLT"), both the laser and LED (light-emitting diode) variety. If you had to choose only one alternative healing modality to introduce into your practice that would bring the fastest, most effective and most cost-effective results to your chronic pain patients, NIR therapy might be your best choice.

In short, LLLT "is a rapidly growing alternative approach to many medical conditions that require relief from pain and inflammation, stimulation of healing, and prevention of tissue death after injury or infarction."⁸

Dr. Shelley describes NIR/LLLT therapy as "a powerful tool" and "one of the treatments that I would say is most beneficial. If it's neuromusculoskeletal pain, then NIR is one of my go-to's." He is a firm believer in NIR therapy, revealing, "Almost every night I use NIR therapy for my own issues. I have my own unit at home, and it gets used all the time."

Strong Scientific Evidence

Dr. McKay brought NIR therapy into his clinic because "There's a lot of science behind it. And that is what attracted me. The science really made sense. It was easy to do, easy to explain, and easy to implement. It was a good part to add to my program."

According to clinical research, "For over forty years, low level laser (light) therapy (LLLT) and LED (light emitting diode) therapy (also known as photobiomodulation) has been shown to reduce inflammation and edema, induce analgesia, and promote healing in a range of musculoskeletal pathologies."⁹ And furthermore, "According to the more than 4,000 studies on pub.med.gov, it can

be concluded that the majority of laboratory and clinical studies have demonstrated that LLLT has a positive effect on acute and chronic musculoskeletal pain."¹⁰

Medical-grade NIR therapy devices have received FDA-clearances for temporarily increasing local circulation; and for the temporary relief of pain, stiffness and muscle spasms.

Triggers Beneficial Chemical Changes

NIR therapy produces a beneficial photochemical reaction within the cells of the body in a process called "photobiomodulation," or "PBM" for short. Simply put, the light induces a cascade of biochemical changes within the cells, similar to how photosynthesis operates in plants.

"Although the exact mechanism of its effect is still unknown, it seems beyond dispute that LLLT induces a variety of stimulating processes at the cellular level affecting cell repair mechanisms, the vascular system and lymphatic system."¹¹

Like chiropractic, NIR therapy supports the body's innate healing abilities. "Low doses of light have demonstrated the ability to heal skin, nerves, tendons, cartilage and bones."¹² But in order to be effective, NIR therapy devices must generate light that has a very specific range of intensity and wavelengths. "The wavelengths of light used for LLLT fall into an 'optical window' at red and NIR wavelengths (600-1070 nm)."¹³ This is because penetration of skin and soft and hard tissues is maximized in this range.

NIR therapy can be used on every external area of the body except the eyes, has no known negative side effects, and generally no contraindications, except for use over a developing fetus or an active cancer. However, under a doctor's supervision, LLLT can provide palliative relief for cancer patients.

Editor's Note: Part 2 of this article discusses NIR therapy for pain, acute and chronic conditions, and tips for maximizing its therapeutic and practice-boosting value.

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