

# EFFICACY OF LOW-LEVEL LASER THERAPY ON PAIN AND MUSCULOSKELETAL FUNCTION.

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The progressive opioid crisis has been spiraling out of control, contributing to a culture of chaos, family degradation, professional insufficiency, and personal despair, with an estimated 769,000 deaths have occurring over the last two decades of growing abuse. In 2019, close to ten million individuals misused prescription opiates, compared to 760,000 heroin users. There have been, on average, 160 to 170 overdoses per DAY (Opioid Crisis Fast Facts). The staggering statistics go on and on, but the message is clear, there must be other pain control methods that do not harm nor deliver side effects to fragile and injured people.

Legislation has been very tough recently regarding dispensing pain medications from practitioners, thus leading to another problem: individuals turning to illicit street drugs to cope, which is a problem for many reasons, including purity toxicity and inconsistent dosing. Street drugs can lead to the spread of disease in a vulnerable population. As a result, there are new methods that help control pain in a proven fashion. A dedicated and well-researched leader of this mission is Erchonia lasers. Using cutting-edge technology that looks at outcome assessment and efficacy in research, Erchonia has demonstrated product superiority by taking charge in the vast majority of laser-based research leading to condition-based FDA approval, and one of those is musculoskeletal pain control.

Figure 3

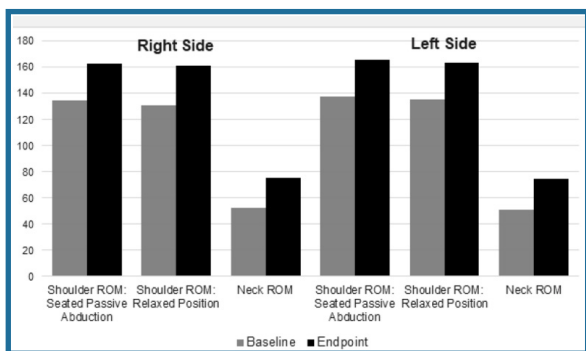
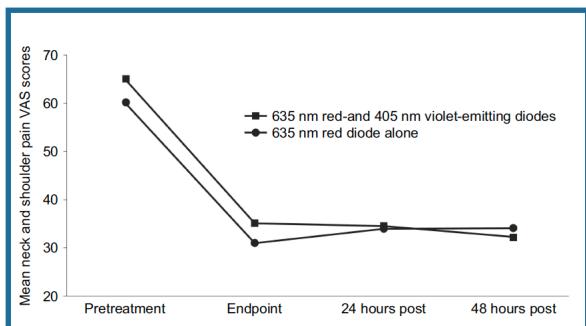


Figure 4



Erchonia's most recent clinical study demonstrates valid methodology and comparative data along with a translational follow-up to support reliability and validity. Validity establishes the utilization of Erchonia lasers as being safe, dependable, and relevant when compared to NSAIDs and opioids and as an adjunct or stand-alone first line of defense when treating pain (Efficacy of 635nm Red Low-level Laser On Nociceptive Musculoskeletal Pain Compared to NSAIDs, Opioids, and Other Light Sources, 2020). Biomechanical, soft tissues, cellular function, and nociception related to musculoskeletal function have clinically improved with 635 nm laser with the appropriate power and dose.

Erchonia's 635 nm red low-level laser utilization on patients in a recent study demonstrated very satisfying visual analog scores (VAS), suggesting that this form of treatment from a subjective scoring perspective is very beneficial for patient care (FIGURE ONE).

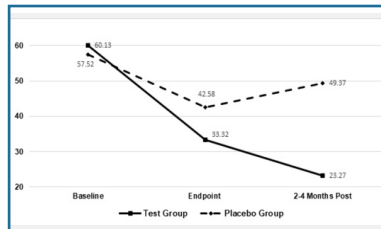


Figure 1

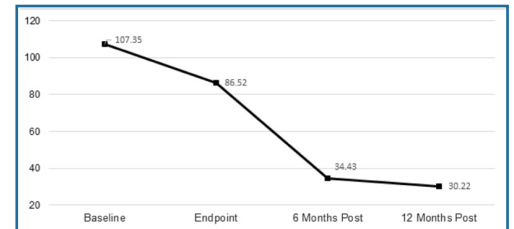


Figure 2

When looking at this from a translational perspective, the patients continued to increase overall satisfaction and decrease in pain as time passed. Translational studies demonstrate that long-term outcome assessments suggest beneficial and efficacious findings regarding laser therapeutics versus placebo. Treatment is comparable to other pharmacological therapeutic methods and laser technology continues to help patients receive pain reduction on a measured continuum (FIGURE TWO). When looking at the overall functional index scores of various treatments with low-level lasers, such as the foot, patients have had significant clinical improvement with clinical findings in all studies that continue to demonstrate validity due to the generated A and P values along with a measure of central tendency that suggests realistic and reliable findings. A decrease in pain, an increase of function, and an improvement in range of motion suggest that LLLT is a multifaceted, safe, cost-effective first-line treatment that is FDA-approved for musculoskeletal conditions.

Erchonia leads the entire field in research and development (FIGURE THREE). Erchonia's recent addition of a 405 nm violet component is another dimension to reducing pain and also germicidal effect. This synergistic component of photochemistry has a cellular effect on hemoglobin, porphyrins, and mitochondria, suggesting that beneficial therapy without toxicity can happen, and this has been clinically proven (FIGURE FOUR). Ultimately LLLT is efficacious, which means Chiropractors and other types of clinicians have a good part in reversing the damage and staggering statistical figures related to the usage and abuse of opioids. It is time to engage those suffering from the abuse of prescriptions and controlled substances with our given clinical gifts, which will include low-level laser therapy along with our other clinical skills and patient treatment paradigms.

If you are interested in learning more about the benefits of non-thermal laser, please contact us on:  
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