

Research Article

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Biophoton Therapy for Chronic Pain: Clinical and Real-World Breakthrough

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ABSTRACT

Background: Chronic pain presents a major clinical and public health challenge, particularly among patients with neurological and inflammatory diseases. Current pharmacological treatments often carry risks of side effects or dependency, highlighting the urgent need for safe, effective, non-invasive alternatives.

Objective: To evaluate the safety and efficacy of Tesla BioHealing® Biophoton Generators in reducing chronic pain, based on data from clinical trials and real-world users.

Methods: A total of 194 patients diagnosed with chronic conditions, including Parkinson's disease, chronic stroke, traumatic brain injury, post-COVID syndrome, Alzheimer's disease, and Lyme disease, participated in seven clinical trials conducted from 2020 to 2025. Pain levels were assessed using the SF-36 survey before and after 4 weeks of biophoton exposure. Additionally, real-world outcomes from over 45,000 users were analyzed via post-marketing surveys and testimonials. Ancillary studies included infrared thermography, meridian energy mapping, and dark-field microscopy of live blood samples.

Results: No adverse events were reported. Among 87 participants with moderate to severe baseline pain, only 21 remained symptomatic after 4 weeks, a 76% reduction. A randomized, triple-blinded, placebo-controlled trial on arthritis confirmed statistically significant pain relief in the biophoton group ($p < 0.01$). Real-world users with severe pain reported average pain score reductions from 9.52 to 5.26. Infrared imaging showed reduced inflammation, meridian analysis revealed increased bioenergy circulation, and live blood microscopy confirmed restored fluidity and reduced oxidative stress.

Conclusion: Tesla BioHealing® Biophoton Generators provide a novel, drug-free therapy for chronic pain with strong safety and efficacy signals across diverse conditions. This technology offers a promising alternative to opioid-based therapies and supports broader applications in integrative neurology and pain medicine.

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Introduction

Chronic pain is one of the most underestimated health care problems in the world today, causing major consequences for the quality of life of the sufferer and a major burden on the health care system in the Western world [1]. Chronic pain affects over 50 million adults in the United States and remains one of the most difficult conditions to manage clinically, especially in patients with neurological and inflammatory disorders. The heavy reliance on opioid analgesics has contributed to the escalating opioid epidemic, with widespread consequences including addiction, tolerance, overdose, and reduced life expectancy in the U.S. population [2,3]. As a result, there is an urgent demand for non-pharmacological, safe, and effective pain management solutions.

Biophoton therapy represents a novel frontier in quantum medicine that leverages naturally emitted ultra-weak photon emissions

from living cells. These biophotons, first characterized by Popp and colleagues, have been implicated in regulating biological communication, cellular repair, and energy transfer processes [4-6]. Building on this foundation, low-level light therapy (LLLT) and photobiomodulation have demonstrated promising analgesic and anti-inflammatory effects [7,8]. However, Tesla BioHealing® devices advance this concept by emitting strong biophoton fields without the need for electrical or chemical activation, enabling safe and continuous exposure for therapeutic use [9-15].

Recent studies suggest that biophoton fields may facilitate DNA repair, neural modulation, and restoration of energetic homeostasis, mechanisms that align with modern understandings of chronic pain pathology [15,16]. Inflammation, oxidative stress, mitochondrial dysfunction, and disrupted cellular communication are increasingly recognized as central contributors to chronic pain syndromes. By targeting these underlying dysfunctions at a quantum level, biophoton therapy may address the root causes rather than masking symptoms alone.

This study presents a comprehensive clinical and real-world evaluation of Tesla BioHealing® Biophoton Generators, including safety data from seven clinical trials (N=194) and post-marketing analysis from over 45,000 users. Using quantitative tools such as SF-36 surveys, infrared thermography, meridian energy mapping, and live blood cell analysis, we assess biophoton therapy’s capacity to reduce chronic pain and improve systemic health. Given the scope of the opioid crisis, the results hold significant promise for transforming the management of chronic pain.

Materials and Methods

Biophoton Therapy Devices

Tesla BioHealing® Biophoton Generators were used as the intervention devices across all studies. The wellness devices were employed: the Tesla BioHealer® for Adults and the Tesla MedBed Generator®, both engineered to emit high-intensity biophoton fields without any electrical or pharmacological components. These devices create a therapeutic quantum energy field capable of influencing biological processes in vivo.

Clinical Trial Design and Participants

From 2020 to 2025, seven independent clinical studies were conducted involving a total of 194 participants diagnosed with chronic neurological or inflammatory conditions, including Parkinson’s disease, chronic stroke, traumatic brain injury (TBI), post-COVID syndrome, Alzheimer’s disease, Lyme disease, and others. All studies were conducted under IRB oversight in accordance with the Declaration of Helsinki.

Inclusion Criteria Included: (1) Age ≥18 years; (2) Diagnosed chronic pain associated with neurological or inflammatory condition; (3) Willingness to use the device nightly for 4 weeks.

Exclusion Criteria Included: (4) Use of concurrent investigational treatments; (5) Pregnancy or active malignancy; (6) Inability to comply with the study protocol.

Participants were instructed to sleep near or on top of a biophoton device (either 4 Tesla BioHealers or 1 Tesla MedBed) for at least 8 hours per night over a 4-week period. Devices were placed beneath or adjacent to the participant’s sleeping surface to ensure full exposure to the energy field.

Outcome Measures

Pain Assessment: Pain levels were recorded at baseline and after 4 weeks of therapy using the validated SF-36 Health Survey, with emphasis on the bodily pain domain. In one randomized, triple-blinded, placebo-controlled trial (ClinicalTrials.gov ID: NCT06915012), pain reduction among patients with chronic arthritis was assessed using numerical pain rating scales at baseline and 2-week follow-up.

Post-Marketing Survey and Testimonials: A real-world post-marketing survey was conducted among 300 Tesla BioHealer users, with 233 completing the full questionnaire. Additionally, 1,017 unsolicited testimonials were analyzed and categorized based on reported pain types and severity levels. Survey and testimonial data provided insight into generalizability and patient satisfaction outside of the trial setting.

Physiological Assessments

Infrared Thermography: Thermal imaging was conducted before and after biophoton exposure using high-resolution infrared cameras to monitor changes in local inflammation. Changes from red/yellow (inflammation) to green/blue (cooling) zones were correlated with subjective pain relief.

Meridian Energy Analysis: Energy levels across the 12 traditional Chinese meridians were evaluated using the Bio-Well Gas Discharge Visualization (GDV) system. Assessments were performed at baseline and follow-up in patients treated with Tesla MedBed Generators equipped with 14 biophoton units.

Live Blood Microscopy: Dark-field microscopy was employed to evaluate blood morphology and fluidity in patients before and after therapy. Serial blood samples were collected from a case study patient with severe bodily pain at baseline, 1 week, and 2 weeks post-treatment. Key parameters included rouleaux formation, red blood cell separation, and presence of inflammatory markers such as cellular halos and debris.

Safety Monitoring: Throughout all clinical trials, adverse events were monitored and documented per Good Clinical Practice (GCP) guidelines. No adverse effects were reported during the clinical study period or in post-market surveillance involving over 45,000 users.

Results

- Safety:** No adverse events were reported in all clinical trials (N=194). Among over 45,000 real-world users, no one reported any noticeable adverse effects. The biophoton therapy is very safe for a variety of patients.
- Pain Reduction** was observed in multiple clinical studies. From 2020 to 2025, we have conducted seven clinical studies by using 4 Tesla BioHealing® biophoton generators. All devices were placed around the users either under the bed or around the bed. The users could be exposed inside the biophoton energy field for as long as they liked during the 24 hours, and at least for 8 hours during the sleep. All studies used SF-36 as an important research tool to monitor the quality of life of the study participants. Pain was one of nine SF-36 questionnaires. The data about pain was extracted from these clinical studies and summarized in Table 1.

Table 1: Clinical Studies Observed Pain Reduction after Biophoton Therapy

Clinical Study Number	Health Condition	Total Number of Participants	Moderate to severe pain at Baseline	Moderate to severe pain at 4-Week	% Pain Reduction
TBHI-PD-222	Parkinson’s Disease	46	26	5	81%
FIAM-CS-202	Chronic Stroke	73	29	6	79%
FIAM-TB-235	Traumatic Brain Injury	32	19	4	79%
FIAM-PC-226	Post COVID Condition	22	5	2	60%
FIAM-AD-255	Alzheimer’s Disease	9	4	2	50%
FIAM-LM-323	Lyme Disease	6	2	1	50%

TBHI-AH-229	Ad Hoc	6	2	1	50%
Total		194	87	21	76%

Among 87 participants reporting moderate to severe pain at baseline, only 21 remained symptomatic after 4 weeks of biophoton treatment, corresponding to a 76% pain reduction. Notable improvements were observed in patients with Parkinson’s disease (81% reduction), stroke (79%), TBI (79%), and post-COVID conditions (60%).

Pain Reduction from Real-World Evidence: Analysis of 1017 unsolicited testimonials revealed consistent reports of pain reduction across conditions (Table 2). Post-marketing survey data showed that users with the most severe pain experienced marked improvements, with average pain scores reducing from 9.52 to 5.26.

Table 2: Real-World Pain Reduction as Reported by the Users after Used Biophoton Generator(s)

TYPE OF PAIN AND RELATED	NUMBER	TYPE OF PAIN AND RELATED	NUMBER
ACHE	51	INSOMNIA	8
ALLERGY	2	JOINT PAIN	2
ANXIETY	30	KNEE PAIN	23
ARTHRITIS	76	LEG PAIN	4
ASTHMA	10	LUNG CANCER	3
AUTISM	6	MIGRAINES	12
AUTOIMMUNE DISEASE	3	NERVE PAIN	11
BREAST CANCER	7	NEUROPATHY	21
CANCER (UNSPECIFIED)	43	OSTEOARTHRITIS	6
COPD	17	PROSTATE	7
DEMENTIA	13	SCIATIC	4
DEPRESSION	13	STROKE	41
DIABETES	14	SWELLING	26
FATIGUE	15	TINNITUS	12
HEART DISEASE	2	PAIN (UNSPECIFIED)	504
INFLAMMATION	31	TOTAL	1017

Pain Reduction from Post-Marketing Survey

We conducted a post-marketing survey among 300 users of Biophoton generators. All of them used one or two Tesla BioHealing® BioHealer for Adults for at least one month. A total of 233 completed the survey. Table 3 was a summary of their pain reduction.

Table 3: Impact of Tesla BioHealers on Chronic Pain

Pain Scores	0-1	2-3-4	5-6	7-8
Pain Grade	No Pain	Mild-Moderate	Severe	Very Severe
Number of Patients	23	98	62	50
Starting Pain Score	0.17	3.33	5.52	7.37
Reduced Pain Score	0.17	1.65	3.02	3.73
Remaining Pain Score	0.00	1.67	2.50	3.65

This survey confirmed that biophoton generators can reduce pain across all severity levels. Participants with severe and very severe pain experienced substantial relief, with average pain levels decreasing to mild or moderate intensity.

Pain Reduction was Observed in Specific Clinical Study in Arthritis Pain

A total of 56 patients with severe pain due to chronic arthritis participated in the randomized, triple blinded, and placebo-controlled clinical study. The clinical study was registered at ClinicalTrials.gov ID NCT06915012. Arthritis pain at the Baseline and 2 weeks after biophoton therapy was summarized in Table 4.

Table 4: Impact of Biophoton Generators on Severe Pain due to Chronic Arthritis

	Baseline	2 Weeks	Comparison to Baseline (P)
Control (n=22)	7.48 + 2.56	7.29 + 3.23	> 0.05
Biophoton (n=24)	7.68 + 2.75	4.20 + 2.54	<0.01
Two-Group Comparison (P)	> 0.05	< 0.01	

Clearly, severe arthritis pain was significantly reduced after 2-week biophoton therapy.

Infrared Thermography: Thermal imaging conducted on subjects before and after biophoton therapy showed reduced inflammation, as indicated by shifts from red/yellow (hot/inflamed) to green/blue (cooler/less inflamed) zones, corresponding to reduced subjective pain as shown in Figures 1 and 2.

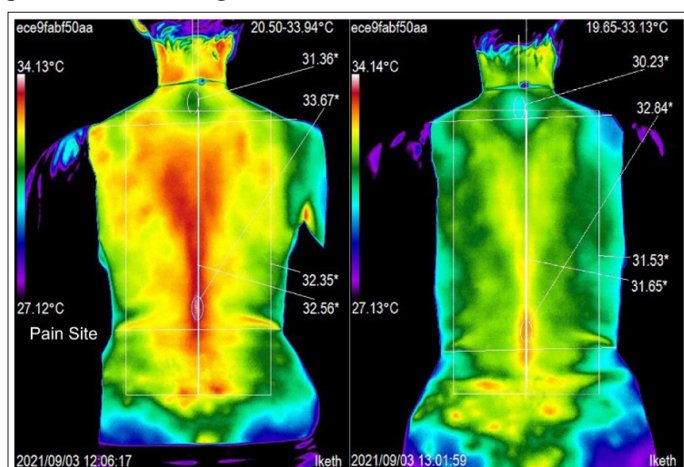


Figure 1: Back Pain was Significantly Reduced 60 Minutes after a Female used Tesla Biophoton Generator

The thermographic images clearly showed a shift in the back from red/yellow (indicating heat and inflammation) to green/blue (signifying reduced inflammation) after 60 minutes of biophoton generator use. This change corresponded with the participant's significant reduction in back pain.

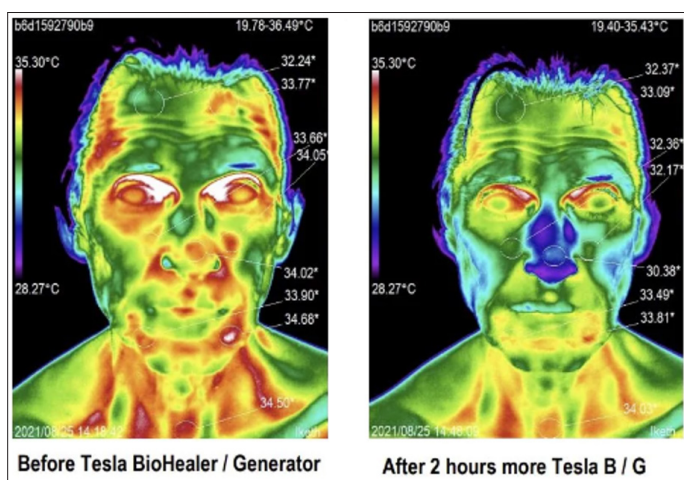


Figure 2: Severe Neck and Sinus Pain is Significantly Reduced after just Two Hours of Biophoton Therapy

The thermographic images clearly showed a shift in the sinus and neck from red/yellow (indicating heat and inflammation) to green/blue (signifying reduced inflammation) after two hours of biophoton generator use. This change corresponded with the participant's significant reduction in sinus and neck pain.

Meridian Energy Assessments: Patients with Parkinson's disease, stroke, TBI, and Alzheimer's disease demonstrated increased energy across all 12 measured meridians after using Tesla MedBed with 14 biophoton generators for 2 to 28 days. Improvements in energy flow corresponded with subjective reports of improved pain and function. One example of the meridian energy level of a patient with Parkinson disease is shown in Table 5.

Table 5: Impact of Biophoton Therapy on the 12 Meridian Energy Level

Meridian	Bioenergy	Baseline	Week 2
Yin of Lungs	Joules (x10 ⁻²)	2.50	5.48
Yang of Large Intestine	Joules (x10 ⁻²)	2.80	5.52
Yang of Stomach	Joules (x10 ⁻²)	3.01	5.80
Yin of Spleen	Joules (x10 ⁻²)	3.37	6.95
Yin of Heart	Joules (x10 ⁻²)	2.87	5.37
Yang of Small Intestine	Joules (x10 ⁻²)	3.36	5.73
Yang of Bladder	Joules (x10 ⁻²)	2.68	4.97
Yin of Kidneys	Joules (x10 ⁻²)	3.39	6.61
Yin of Pericardium	Joules (x10 ⁻²)	2.41	5.55
Yang of Triple Warmer	Joules (x10 ⁻²)	2.75	5.70
Yang of Gallbladder	Joules (x10 ⁻²)	2.92	6.19
Yin of Liver	Joules (x10 ⁻²)	3.18	6.88

After two weeks of sleeping on a wellness hotel bed equipped with four biophoton generators, the participant showed increased energy across all 12 meridians. This enhanced meridian circulation was associated with a marked reduction in severe pain.

Blood Fluidity Change

Background: The 60-year-old female patient reported severe full-body pain prior to intervention. Biophoton therapy was administered using a total of 4 strong biophoton generators which were placed around the bed. The patient was sleeping on the bed for two weeks. Live blood analysis was performed at baseline and weekly thereafter for two weeks to evaluate changes in blood morphology, fluidity, and markers of inflammation (Figure 3).

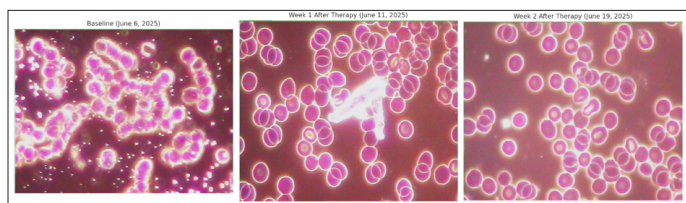


Figure 3: The side-by-side Visual Comparison of the Patient’s Live Blood Images. Left: Baseline (June 6, 2025): significant rouleaux formation, severe clumping. Middle: Week 1 (June 11, 2025): partial improvement, crystal presence suggests detox. Right: Week 2 (June 19, 2025): fully restored blood fluidity, healthy RBC separation.

Live blood analysis results are as follows:

1. **Baseline - June 6, 2025, Findings:** (1) Marked rouleaux formation (stacking of red blood cells). (2) Dense clumping and aggregation of cells. (3) Bright halos around cells

indicating oxidative stress. Interpretation: (1) Poor blood fluidity. (2) Likely impaired oxygen transport and systemic circulation. (3) Strong signs of chronic inflammation and immune dysregulation.

2. **Week 1 - June 11, 2025, Findings:** (1) Noticeable reduction in rouleaux and aggregation. (2) Red blood cells begin to appear more individualized. (3) Presence of crystalline structures suggesting detoxification. Interpretation: (1) Early signs of circulatory improvement. (2) Possible initiation of toxin elimination processes. (3) Patient may experience mild detox symptoms, but reduced pain is likely.
3. **Week 2 - June 19, 2025, Findings:** (1) Red blood cells are well-separated, round, and uniformly shaped. (2) No visible aggregation or stacking. (3) Blood plasma appears cleaner with reduced background debris. Interpretation: (1) Restored blood fluidity and microcirculation. (2) Enhanced oxygen-carrying capacity and reduced systemic inflammation. (3) Strong correlation with observed pain relief and increased vitality. The above blood fluidity was summarized in Table 6.

Table 6: Impact of Biophoton Therapy on Blood Fluidity of a Patient with Full-Body Pain

Timepoint	Rouleaux Formation	RBC Separation	Inflammation Markers	Detox Indicators	Overall Blood Fluidity
Baseline	Severe	Poor	High	None	Very Low
Week 1	Moderate	Improving	Decreasing	Present (crystal)	Moderate
Week 2	Absent	Excellent	Minimal	Absent	High

Clinical Interpretation: Biophoton therapy led to rapid and progressive normalization of blood properties within two weeks. The transition from severe rouleaux and aggregation to freely circulating, round red blood cells is consistent with decreased inflammation and improved oxygen delivery.

The Week 1 crystalline artifact suggests an intermediate detox phase, often associated with pain modulation and cellular repair processes. By Week 2, the blood showed signs of systemic balance and homeostasis, which aligns with the patient’s reported reduction in bodily pain.

Conclusion of this Case: Live blood microscopy demonstrates compelling evidence that biophoton therapy restored healthy blood flow and reduced inflammatory markers in a patient with chronic severe bodily pain. These improvements likely underlie the patient’s observed clinical relief. Further quantitative studies are recommended to expand on this finding.

Discussion

This study provides compelling clinical and real-world evidence that Tesla BioHealing® Biophoton Generators are a safe, non-invasive, and effective solution for reducing chronic pain across diverse neurological and inflammatory conditions. Pain reduction was observed in all seven clinical trials, with the most profound effects seen in Parkinson’s disease, stroke, traumatic brain injury, and post-COVID syndrome. Notably, 76% of participants with moderate to severe pain at baseline reported meaningful pain relief after 4 weeks of biophoton therapy without any adverse events.

The therapeutic impact of biophoton therapy aligns with emerging research on the bioenergetic properties of ultra-weak photon emissions from biological tissues. Biophotons are understood to play critical roles in intracellular communication, DNA regulation, and neural signaling. [17-19]. Tesla BioHealing devices amplify this naturally occurring energy by creating a strong, coherent

biophoton field capable of penetrating tissues without heat or ionizing radiation.

The mechanistic pathways through which biophoton therapy reduces pain may involve several synergistic processes. First, photobiomodulation has been shown to decrease oxidative stress, suppress inflammation, and promote mitochondrial activity, all of which are central to chronic pain pathogenesis [20]. Second, biophoton energy may support neural regeneration and synaptic plasticity through quantum-level interactions with cellular structures [21]. Additionally, meridian energy mapping demonstrated increased bioenergetic circulation in patients treated with the Tesla MedBed system, suggesting enhanced energetic homeostasis consistent with traditional Eastern medicine concepts [22,23].

One of the most visually striking findings was the restoration of blood fluidity within two weeks of therapy, as documented by live blood microscopy [13,14,24,25]. The transition from severe rouleaux formation and oxidative haloing to clear plasma and round, well-separated red blood cells reflect systemic detoxification and improved oxygen delivery. These changes corresponded closely with the patient’s reported reduction in pain, energy restoration, and overall vitality. Previous investigations demonstrated that improved blood flow and reduced red blood cell aggregation correlated with reduced pain, suggesting better hemorheology contributes to pain relief [26-29].

From a broader perspective, the safety profile and scalability of biophoton therapy make it an attractive alternative to pharmacological interventions, particularly opioids. The U.S. Food and Drug Administration continues to identify opioid misuse as a leading cause of premature mortality, underscoring the critical need for non-addictive solutions [3]. Biophoton therapy, by addressing underlying energy dysregulation and inflammation without side effects, may represent a paradigm shift in integrative

pain medicine and several unmet medical conditions [29-32].

Finally, the consistency of findings across clinical trials, patient testimonials, infrared thermography, and meridian biofield data adds weight to the reproducibility of results. Unlike placebo or subjective-only interventions, the objective physiological markers improved blood fluidity, decreased thermographic inflammation, and elevated meridian energy confirm real systemic effects induced by biophoton exposure.

Conclusion

This comprehensive clinical and real-world investigation demonstrates that Tesla BioHealing® Biophoton Generators offer a safe, non-invasive, and effective modality for reducing chronic pain across a wide range of neurological and inflammatory conditions. The therapy consistently produced meaningful improvements in pain scores, blood fluidity, inflammatory markers, and meridian energy flow outcomes that were supported by both subjective reports and objective physiological assessments.

Unlike conventional pharmacological treatments, especially opioids, biophoton therapy operates through quantum-level mechanisms that promote cellular repair, reduce inflammation, restore energetic balance, and enhance microcirculation, without adverse effects or risk of dependency. These advantages position biophoton therapy as a promising alternative in integrative and regenerative pain management, treatment of a variety of chronic diseases particularly for vulnerable populations with limited treatment options.

Given its strong safety profile, real-world scalability, and multi-system benefits, Tesla BioHealing® biophoton technology represents a paradigm shift in chronic pain care. Future randomized controlled trials with larger cohorts and mechanistic investigations will help further define its role in mainstream clinical practice.

Note: The results presented in this article were reported at the 3rd Global Congress on Advances in Addiction Medicine and Mental Health, held in Berlin, Germany, from June 23 to 24, 2025.

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