



Spokane Holistic
Healing

Spokane Holistic Healing Client Handout

Red Light Therapy and Substance Abuse

Emerging research suggests that Red Light Therapy (RLT), also known as photobiomodulation, may offer benefits in addiction recovery by influencing brain function, mood regulation, and overall well-being.

How RLT Might Help with Substance Abuse:

1. **Brain Function & Neuroprotection** – RLT has been shown to enhance mitochondrial function and promote neurogenesis, which may help repair brain damage caused by substance abuse.
2. **Mood & Anxiety Reduction** – Some studies suggest that RLT can help regulate mood and reduce anxiety, which are key factors in addiction recovery.
3. **Craving Reduction** – There is some preliminary evidence that RLT, especially near-infrared light therapy (NILT), may reduce cravings by affecting brain regions involved in addiction.
4. **Sleep Improvement** – Substance abuse often disrupts sleep patterns, and RLT has been found to help regulate circadian rhythms and improve sleep quality.
5. **Pain Management** – If pain is a factor in addiction (e.g., opioid dependency), RLT's ability to reduce inflammation and pain might help reduce the need for painkillers.

Scientific Studies on RLT and Addiction

- **Cocaine Addiction:** A study by researchers at UC San Francisco demonstrated that stimulating the prefrontal cortex of rats with laser light effectively eliminated addictive behaviors. This finding underscores the potential of light-based therapies in modulating brain regions associated with addiction.

[UCSF](#)

- **Opioid Use Disorder:** A randomized controlled trial investigated the effects of unilateral transcranial photobiomodulation on individuals with opioid use disorder. The study found that this light therapy approach could serve as a novel and safe treatment option, highlighting its potential in addressing opioid addiction.

[PubMed Central](#)

- **Alcohol Use Disorder:** Research from Wake Forest Baptist Medical Center explored the use of optogenetics—a technique combining light stimulation with genetic modification—to treat alcohol addiction. The findings suggest that light therapy could influence neural circuits involved in alcohol dependence. [Medical News Today](#)



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Practical Applications of RLT in Addiction Recovery

- **Transcranial Photobiomodulation:** This method involves applying near-infrared light to the scalp to penetrate brain tissues, potentially modulating neural activity linked to addiction. Devices like helmets equipped with light-emitting diodes (LEDs) are being developed to facilitate at-home treatments.

wvpublic.org

- **Auricular Acupuncture with Low-Level Laser:** Combining traditional acupuncture techniques with low-level laser therapy on specific ear points has been reported to decrease cravings and anxiety, supporting addiction recovery.

lasermedicine.co.uk

- **Adjunctive Therapy in Rehabilitation Centers:** Some treatment facilities have integrated RLT into their programs to enhance mental health, reduce withdrawal symptoms, and promote overall well-being among individuals undergoing addiction treatment.

hopeharborwellness.com

Considerations and Recommendations

While preliminary studies are promising, it's important to note that research on RLT's efficacy in treating substance use disorders is still in its early stages. Individuals interested in incorporating RLT into their addiction recovery plan should:

- **Consult Healthcare Professionals:** Seek guidance from medical providers experienced in addiction treatment to determine if RLT is a suitable complementary therapy.
- **Ensure Evidence-Based Practices:** Use RLT as an adjunct to established addiction treatments, such as counseling, behavioral therapies, and medication-assisted treatment, rather than as a standalone intervention.