

Phototherapy for chronic pain

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Technology description

Invention

The invention is the use of non-invasive, low intensity light for pain relief that is equally efficacious as other chronic pain management options, but without the associated side effects.

Background

The current options available for managing chronic pain include opioids like morphine, oxycodone, and fentanyl. These highly addictive drugs are limited, expensive, and are associated with serious side effects and health risks. In order to determine an alternative approach, researchers at the University of Arizona conducted a study on rat models, which ultimately exhibited that exposure to a green LED light completely reversed chronic pain. The phototherapy procedure was conducted by creating contact lenses for rat use, which only allowed a certain wavelength to pass through the lens.

Application area

Alternative to medications or supplementary therapy for chronic pain management.

Potential to be developed as an over-the-counter medical device for pain relief.

Advantages

No potential for addiction.

Not associated with the harmful side effects of opioids.

Equally as efficient as opioids for managing pain in animal models. (Clinical trial is ongoing.)

Non-invasive.

Institution

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