

Light Therapy for Jet Lag By Dr Alan Kwong Hing Feb 23, 25

Light therapy is a popular therapy for helping people sleep better. Several studies have shown that using red light therapy improves the quality of sleep and naturally stimulates melatonin production. A study published in the Journal of Athletic Training followed 20 female athletes who used red light therapy for two weeks. The study found that red light therapy increased melatonin levels and improved sleep. Another study showed that using red light therapy increased daytime alertness and improved people's circadian rhythms. An article titled "Effects of light on human circadian rhythms, sleep, and mood," discusses that being exposed to light during the evening hours contributes to the adjustment of the body's internal clock, leading to enhancements in both the quality and duration of sleep. Studies show that exposure to light therapy helps people adjust their circadian clocks to new time zones more efficiently and effectively. If you travel WESTWARDS, you can use Light Therapy in the evening to help you adjust to a later time. On the other hand, if you travel EASTWARDS, you can expose yourself to Light Therapy in the morning in order to acclimate your body to an earlier time zone.

The essence of Light Therapy lies in its ability to stimulate cellular function through exposure to specific wavelengths of light. When applied to the body, wavelengths <u>penetrate deep into the skin and tissues</u>, where it interacts with mitochondria, the powerhouses of our cells. This interaction prompts a series of biological responses, most notably <u>increased energy production</u> and <u>enhanced circulation</u> to help overcome the effects of time zone travelling.

Existing research supports several uses of light therapy for jet lag-related problems as it can:

- help stimulate melatonin production to promote sleep and restfulness prior to and after traveling
- improve daytime alertness and overall energy levels
- help re calibrate and stabilize the circadian rhythm
- signal the mind and body that it's time to wind down with its relaxing effects
- boost cell energy to enhance and stimulate all body functions

Light exposure is a non-pharmacological method to elicit a myriad of immediate effects on both physiology and behavior, particularly relevant to issues like jet lag. Rapidly elevating mood and

alertness, light serves as an indispensable tool in resetting our body clocks and assisting with sleep. Improving overall energy levels helps to overcome body fatigue and mind fog associated with travel. Moreover, research has demonstrated that Light Therapy can improve general health and adaptability, which are especially advantageous for overall physical and mental health for individuals who travel often.

https://www.scientificamerican.com/article/how-to-prevent-jet-lag/https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829880/
