

FAST FACTS

Neuro red light therapy

Transcranial and intranasal photobiomodulation

What

Transcranial and intranasal photobiomodulation (PBM) are two methods of using light to stimulate biological processes in the brain and potentially improve neurological health.

Both methods involve low-level laser or LED light in specific wavelengths to promote healing, reduce inflammation, and improve cellular function.

Transcranial BPM

Light is applied directly to the scalp, penetrating through the skull to affect brain tissue. It uses red or near-infrared light to stimulate neurons and improve brain function.

This therapy is being explored for its potential in improving cognitive function, mood, and conditions such as traumatic brain injury (TBI), depression, and neurodegenerative diseases like Alzheimer's and Parkinson's.

How it works:

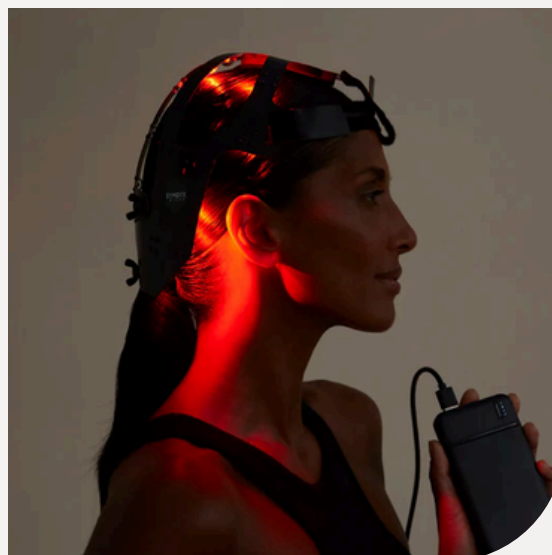
- Light penetrates the scalp and skull, reaching the brain tissue.
- Mitochondria within the brain cells absorb the light, boosting energy production (ATP).
- It also increases blood flow, reduces inflammation, and promotes neuroplasticity, which can support recovery and brain health.

Intranasal BPM

A low-level laser or LED light is delivered through the nasal cavity, where it targets the blood vessels close to the surface. The goal is to enhance blood circulation and oxygen delivery to tissues, including the brain.

How it works:

- Light enters through the nasal cavity, reaching capillaries and tissues.
- It stimulates the production of nitric oxide, improving blood flow and reducing inflammation.
- The process helps oxygenate the brain and other vital organs, promoting overall systemic health.



Pros

- Cognitive enhancement
- Memory, attention, and processing
- Mood regulation
- Neuroprotection

Considerations

- Make sure the devices being used are approved and tested for safety.
- If you have conditions that cause photosensitivity or are taking medications that increase sensitivity to light, PBM may not be appropriate.
- Light-based therapies might trigger seizures in individuals with a history of epilepsy or certain neurological conditions, so this must be discussed with a doctor beforehand.
- BPM requires special clinics or home devices. The cost can also vary depending on the type of treatment and the number of sessions required.
- Seek professional advice, understand potential side effects, ensure device safety, and manage expectations before starting photobiomodulation therapy.