

Neuro Duo 3

USD \$2,399.00

As the world's only transcranial-intranasal brain photobiomodulation (PBM) device, the **Vielight Neuro Duo** is the result of years of engineering and research.

Clinical research with our technology has produced improvements in *cognition, memory and blood flow*.

The Vielight Neuro Duo comes with both **Alpha** and **Gamma** modes.

- **Gamma** (40Hz): *focus, memory, brain energy.*
- **Alpha** (10 Hz): *relaxation and sleep improvement.*

Vielight technology quality is guaranteed by medical grade certification.

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Description

Additional information

Reviews (35)

Description

As a powerful and well-researched transcranial brain photobiomodulation (tPBM) device with intranasal technology, the **Vielight Neuro Duo** is a next-generation brain stimulation device that's safe, effective and easy to use. Our patented transcranial-intranasal technology offers a unique and powerful advantage for comprehensive brain stimulation of the Default Mode Network.

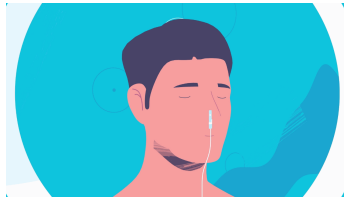
The Neuro Duo transmits pulsed near-infrared (NIR) energy through the cranium, activating a process known as photobiomodulation. Through efficient engineering, we are able to extract one of the highest amounts of power ($\sim 100 \text{ mW/cm}^2$) from a near-infrared LED energy source without generating heat.

Gamma (40Hz): *focus, information processing, memory improvement, energizing.*

Alpha (10 Hz): *mindfulness, learning, relaxation, sleep improvement.*

- Vielight technology quality is guaranteed by medical grade certification.

- Vielight technology is supported by a two-year manufacturer's warranty from the time of delivery.



Why the nose?

Being just 3 inches from the brain, the intranasal channel is the most efficient channel for photobiomodulation of the ventral (underside) brain area. These ventral structures within the brain's core have important functions.

How is the Neuro Alpha different from the Neuro Gamma?

- The Alpha induces a more relaxed mental state while the Gamma induces a more focused mental state.

Additional information

- Near-infrared light is nearly invisible to the naked eye, making the beam appear dimmer than its power density.
- Each device comes with:
 - 1) 1 Neuro headset
 - 2) 1 Neuro intranasal applicator
 - 3) 1 Charger
 - 4) 1 Device pouch
 - 5) 1 Silicon sleeve
 - 6) 1 Carry case

Info sheet: [[Link](#)] | User guide: [[Link](#)] | Placement info sheet: [[Link](#)]





Vielight Neuro FAQ

What wavelength does the Vielight Neuro emit?

The Vielight Neuro emits pulsed 810nm NIR energy to enable brain stimulation through the photobiomodulation process.

Why the 810nm wavelength?

The 810nm wavelength has the deepest penetration through tissue and bone, enabling photonic transmission to neuronal mitochondria.

What is the difference between the Duo, Gamma and Alpha models?

The Gamma model pulses NIR light energy at 40 Hz, which has a neuromodulating effect on Gamma neural oscillations.

Effects are an increase of *focus, information processing, memory improvement, energizing*.

The Alpha model pulses NIR light energy at 10 Hz. This frequency is similar to neural alpha waves. Theoretical brain stimulation effects on alpha waves have a correlation with the brain's resting state, offering support for *mindfulness, learning, relaxation, sleep improvement*.

The Duo makes both of these pulse rates available to you – having both pulse rates brings the most benefits.

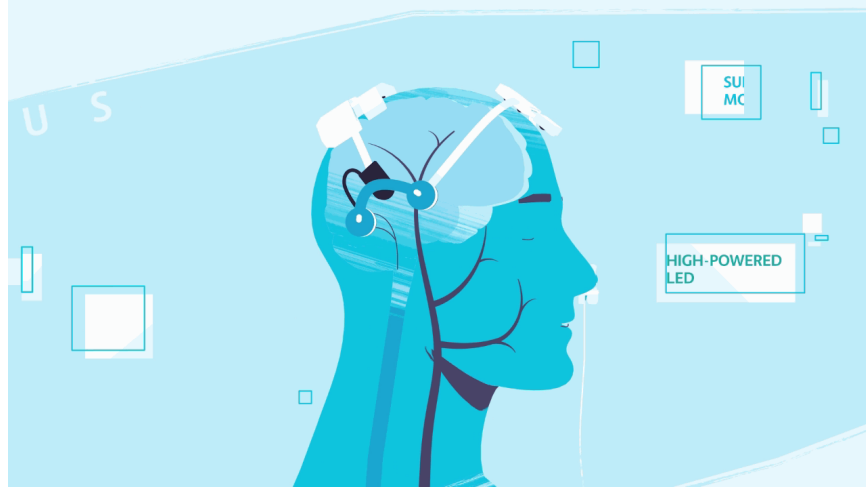
How much power do your brain photobiomodulation devices generate?

Our brain photobiomodulation devices generate sufficient power to penetrate the skull and produce statistically significant results in independent research studies.

What is the recommended usage?

The general recommended usage is to use once every other day before experimenting with more frequent usage, not exceeding once per day. For more serious cognitive impairment, the recommendation is once per day, six days a week. Please note these recommendations are theoretical and anecdotal.

Engineering behind the Vielight Neuro.



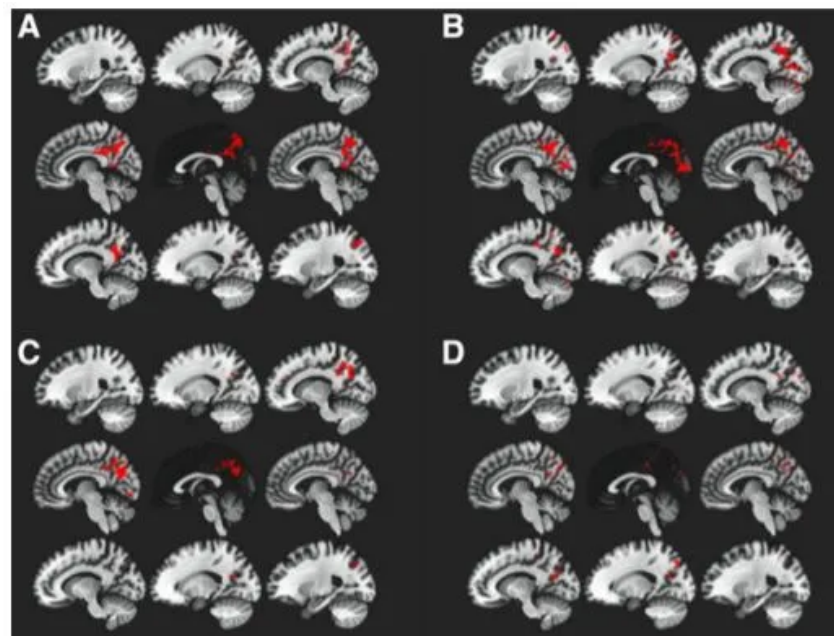
The Vielight Neuro enables direct contact with the scalp's surface

to **maximize energy transmission** and penetration while microchip–boosted cold LED diodes generate substantial power without releasing heat. Additionally, our patented intranasal technology enables photobiomodulation of the ventral brain areas.

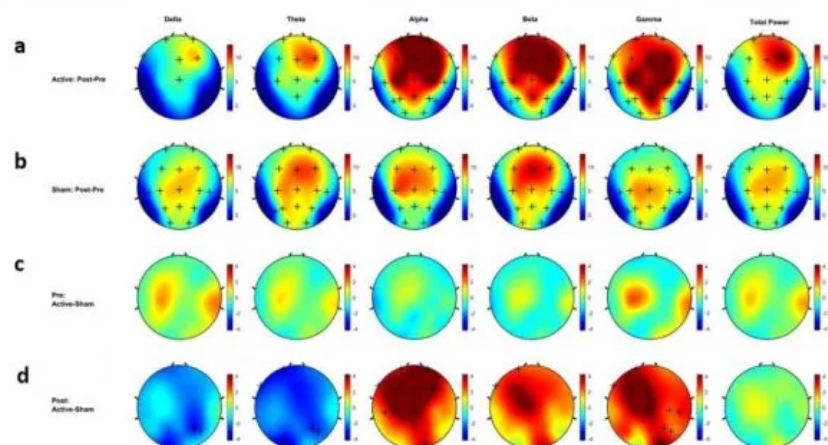


Vielight Neuro – NIR light energy penetration.

Effects of the Vielight Neuro.



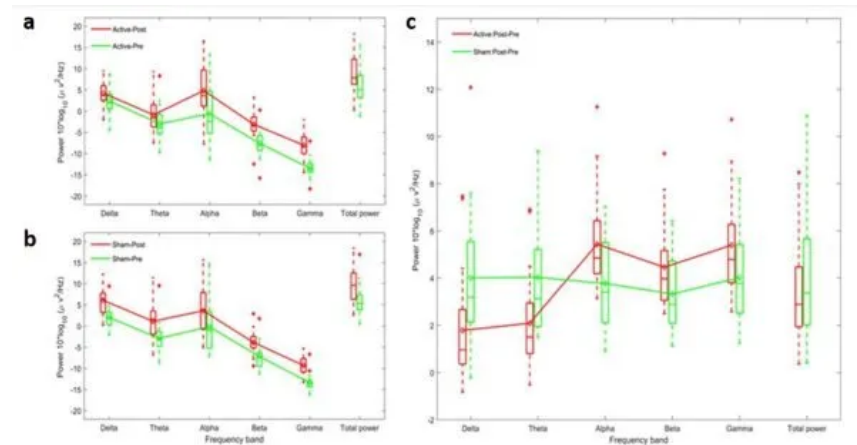
Default-mode network activity in the PBM group—(A) baseline and (B) week 12 and in the usual care group—(C) baseline and (D) week 12. The posterior cingulate cortex (1, -61, and



38) was used as

seed in the analysis; Height threshold: Punc
 < 0.001 ; cluster threshold PFDR < 0.05 .

Non-parametric cluster-based permutation test comparing the rest EEG power spectrum between active and sham tPBM. Topographical maps are color-coded according to the permutation tests t-values. Clusters of electrodes with significant difference between the two conditions are marked in '+' sign ($p < 0.05$ and $\alpha_{\text{cluster}} = 0.01$). (a) Difference between post and pre active tPBM. (b) Difference between post and pre sham tPBM. (c) Difference between pre active and sham tPMB. (d) Difference between post active and sham tPMB.



Influence
of tPBM on
resting-
state

electroencephalography. Box plot illustrates the median and range of power spectrum across all electrodes for each oscillatory frequency bands. (a) Effect of active tPBM on power spectrum pre (green line) and post (red line). (b) Effect of sham tPBM on power spectrum pre (green line) and post (red line). (c) Difference between Active and Sham tPBM: Change of power spectrum Post-Pre for active (red line) and sham (green line) tPBM. Active versus sham stimulation revealed significant lower alteration in delta and theta power and higher change in alpha, beta and gamma frequency bands.

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