



Light Therapy to improve memory and thinking in people who have suffered traumatic brain injury (TBI)

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Purpose: This research study examines whether a light therapy applied to the head can improve memory and thinking in people who have suffered one or more traumatic brain injuries (TBI).

Rationale: After a TBI, some cells in the brain may not fully recover. Applying light to the head may help to repair cells that may not be functioning properly after TBI. The light treatment is painless, and there is no generation of heat. The light-emitting diode (LED) device used in this study is considered to be a low-risk device, which falls under the FDA category of "General Wellness," and no medical claims are made.

Requirements to Enter the Study:

1. Ages 18 - 65. May be a veteran or a non-veteran.
2. Must have experienced TBI/s that happened more than 6 months ago, prior to scheduling an online appointment, for possible entry into the study.
3. The TBI/s should have been only "closed-head" TBI.
4. The TBI/s must be considered only mild or moderate, depending on the duration of loss of consciousness (or no loss of consciousness) at the time of the TBI.
5. Must not have had a "severe" TBI, and/or a surgical procedure to relieve pressure, or stop bleeding in the head.
6. The TBI/s may be from car accidents, blast injury in veterans, work-related or sports-related impacts to the head, such as may occur in American football, ice hockey, soccer, basketball, etc.
7. Must have a home computer, and access to the Internet, in order to complete the study testing appointments, online.

What is involved with Participation in the Research Study?

There will be an initial, VA-approved, telephone screening with questions that you will be asked, when you call our office to see if you are potentially eligible for the study. The LED intervention includes two, 5-week series of LED treatments at home, separated by one month of no LED treatments at home. Each LED treatment is 20 minutes.

The study is contact-less, with testing sessions that are online, and the LED light therapy intervention will take place at your home (no office visits are required), unless you receive MRI scanning, which takes place at the NERVE center, VA Boston Healthcare System, 150 So. Huntington Ave., Boston, MA.

You will be compensated for your time and effort in this research study. Your participation in the study is estimated to be about 4 months.