Can ‘flashing light and pulsing sounds’ counter the effects of Alzheimer’s?

Bathing patients in flashing light and pulsing sounds both tuned to a frequency of 40 hertz might reverse key signs of Alzheimer’s in the brain, according to a paper published in Cell on [March 14].

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The work was done in mice with genetic alterations that doomed them to develop key symptoms and pathology of Alzheimer’s disease.

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Like light strobes, our brains flicker. Brain waves are generated when large groups of neurons oscillate on and off together. Neurons encode our thoughts and actions and senses in this rhythmic electrical flutter. So when [neuroscientist Li-Huei] Tsai tuned her light to flash 40 times a second, or 40 hertz, and flickered it at the mice, their brains flickered back—generating gamma waves at a corresponding 40 hertz. Then, something unexpected happened.

When Tsai dissected the mice brains afterward, the amount of amyloid plaques and tau tangles in the mice that saw the light had plummeted.

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Researchers simply do not know why these brain waves, specifically ones rising from light and sound stimulation at 40 hertz and no other frequencies, can lead to a reversal of Alzheimer’s disease symptoms. “That’s a mystery,” says [neuroscientist] Terrence Town.

Read full, original post: An Hour of Light and Sound a Day Might Keep Alzheimer’s at Bay