

Does sunshine make us smarter? UV exposure boosts mouse brainpower

The sun's ultraviolet (UV) radiation is a major cause of skin cancer, but it offers some health benefits too, such as boosting production of essential vitamin D and improving mood. [May 17] a report in [Cell](#) adds enhanced learning and memory to UV's unexpected benefits.

Researchers have discovered that, in mice, exposure to UV light activates a molecular pathway that increases production of the brain chemical glutamate.

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"The authors make an interesting observation linking moderate UV exposure to . . . [production of] the molecule urocanic acid. They hypothesize that this molecule enters the brain, activates glutaminergic neurons through glutamate release, and that memory and learning are increased," [said scientist Martin Steinhoff].

While the work is "fascinating, very meticulous, and extremely detailed," says dermatologist [David Fisher](#) of Massachusetts General Hospital and Harvard Medical School, "it does not imply that UV is actually good for you. . . . Across the board, for humanity, UV really is dangerous."

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Whether the results obtained in mice, which are nocturnal and rarely see the sun, will hold true in humans is yet to be determined. But, Fisher says, if the results do hold, the finding that urocanic acid alone can enhance learning and memory might suggest "a way to utilize this information to benefit people without exposing them to the damaging effects of UV."

Read full, original post: [Could a Dose of Sunshine Make You Smarter?](#)