

How psilocybin rewires the brain to treat depression

Psilocybin is one of a number of psychedelics under investigation as a potential therapy for psychiatric disorders. In the last 15 years, at least six separate clinical trials have reported impressive improvements in depressive symptoms with psilocybin therapy. Several studies have tested a synthesized a form of the drug to treat patients with depression and anxiety — with promising results.

However, the therapeutic action of psilocybin and other serotonergic psychedelics is still not completely understood, although it is known that they affect 5-HT_{2A} receptors and are hypothesized to briefly disrupt these connections, allowing them to reform in new ways in the days and weeks following treatment.

[New research points](#) to a general mechanism that may explain how psychedelics act on the brain to alleviate [depression](#) and potentially other psychiatric conditions marked by fixed patterns of thinking, including [rumination](#) and excessive self-focus.

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“Not much is known about the changes in brain function after psychedelic experience. There has been much more research done on the acute brain action of psychedelics, but there is very little on the post-acute or subacute changes in brain function,” [said study investigator Robin Carhart-Harris, PhD.] “This research is a major advance because it is showing replication across two datasets with different designs.”

[This is an excerpt. Read the original post here.](#)