

Marijuana May Reduce Brain Damage Caused By Alcohol: Study



Chemicals in marijuana have powerful antioxidant properties, which scientists believe can protect the brain from damage. (Photo: Addiction Treatment)

Too much alcohol can lead to permanent brain damage, but a new study suggests marijuana may be able to prevent this.

Published last week in the journal [Pharmacology Biochemistry and Behavior](#), scientists from the University of Kentucky and University of Maryland concluded that a chemical in marijuana called [cannabidiol](#) (CBD) could be used to ward off alcohol-induced brain damage.

They hope the findings will bring them closer to developing a preventative treatment for patients suffering from alcoholism.

“These results justify further preclinical development of transdermal CBD for the treatment of alcohol-induced neurodegeneration.”

Like [THC](#), CBD is another chemical found in marijuana – but CBD cannot get you high. However, both chemicals are strong antioxidants – a characteristic the authors believe to be responsible for reducing brain damage from alcohol.

“It has been suggested that the neuroprotective effects of CBD observed during binge alcohol induced neurodegeneration are due to its high antioxidant capacity.”

The authors also note that CBD acts as a stronger antioxidant than many well-known antioxidants – including BHT and α -tocopherol (vitamin E)

In the new study, researchers tested CBD treatment on rat models using both a skin patch (transdermal) and regular needle injection (intraperitoneal). Both methods appeared to produce “similar magnitudes of neuroprotection” – approximately 50 per cent, according to their analysis.

“Interestingly, this study showed that transdermal and IP [intraperitoneal] delivery of CBD produced similar magnitudes of neuroprotection.”

Although further studies need to be done before human trials begin, the researchers state that – while treatments for alcoholism do exist – none have yet to target the neurodegenerative effects of alcohol.

The neurodegenerative effects are believed to contribute to alcohol dependence by impairing behavioural control and decision making.

Studies show about 8.5% of the U.S. population may be suffering from alcohol dependence, suggesting that many stand to benefit from this new potential treatment.

The study was published ahead of print and received funding from the National Institute of Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse and the Kentucky Science and Technology Corporation.