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Doctors: Pot Triggers Psychotic Symptoms

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LONDON - New findings on marijuana's damaging effect on the brain show the drug triggers temporary psychotic symptoms in some people, including hallucinations and paranoid delusions, doctors say.

British doctors took brain scans of 15 healthy volunteers given small doses of two of the active ingredients of cannabis, as well as a placebo.

One compound, cannabidiol, or CBD, made people more relaxed. But even small doses of another component, tetrahydrocannabinol, or THC, produced temporary psychotic symptoms in people, including hallucinations and paranoid delusions, doctors said.

The results, to be presented at an international mental health conference in London on Tuesday and Wednesday, provides physical evidence of the drug's damaging influence on the human brain.

"We've long suspected that cannabis is linked to psychoses, but we have never before had scans to show how the mechanism works," said Dr. Philip McGuire, a professor of psychiatry at King's College, London.

In analyzing MRI scans of the study's subjects, McGuire and his colleagues found that THC interfered with activity in the inferior frontal cortex, a region of the brain associated with paranoia.

"THC is switching off that regulator," McGuire said, effectively unleashing the paranoia usually kept under control by the frontal cortex.

In another study being presented at the conference, a two-day gathering of mental health experts discussing the connections between cannabis and mental health, scientists found that marijuana worsens psychotic symptoms of schizophrenics.

Doctors at Yale University in the U.S. tested the impact of THC on 150 healthy volunteers and 13 people with stable schizophrenia. Nearly half of the healthy subjects experienced psychotic symptoms when given the drug.

While the doctors expected to see marijuana improve the conditions of their schizophrenic subjects _ since their patients reported that the drug calmed them _ they found that the reverse was true.

"I was surprised by the results," said Dr. Deepak Cyril D'Souza, an associate professor of psychiatry at Yale University's School of Medicine. "In practice, we found that cannabis is very bad for people with schizophrenia," he said.

While D'Souza had intended to study marijuana's impact on schizophrenics in more patients, the study was stopped prematurely because the impact was so pronounced that it would have been unethical to test it on more people with schizophrenia.

"One of the great puzzles is why people with schizophrenia keep taking the stuff when it makes the paranoia worse," said Dr. Robin Murray, a professor of psychiatry at King's College.

Experts theorized that schizophrenics may mistakenly judge the drug's pleasurable effects to outweigh any negatives.

Understanding how marijuana affects the brain may ultimately lead experts to a better understanding of mental health in general.

"We don't know the basis of paranoia or anxiety," said McGuire.

"It is possible that we could use cannabis in controlled studies to understand psychoses better," he said. McGuire theorized that could one day lead to specific drugs targeting the responsible regions of the brain.