



## **Cannabis and Psychosis – A Brief Guide**

The BC Early Psychosis Advanced Practice Program- 2019

Cannabis use has dramatically increased over the past 50 years, and is now legal in Canada. Concerns have been raised that cannabis use can lead to both a short-lived and longer-term psychosis, cause schizophrenia, and affect the outcomes of those who already have a psychotic disorder. This document addresses those concerns by summarizing major findings on the links between cannabis and psychosis.

### **Can cannabis use cause psychosis?**

- Experimental studies have proven that the THC in cannabis can cause a temporary psychosis that disappears when the drug is metabolized.
- Reports of a cannabis-induced psychosis, where stopping use does not lead to disappearance of the psychosis, are quite rare. Most cases are eventually diagnosed as schizophrenia.
- The diagnostic system developed in North America (DSM-5) does not contain a category of cannabis-induced psychosis, but such a diagnosis exists in the international ICD-10 system.
- Although cannabis use has increased, the rate of new cases of schizophrenia around the world has remained the same for decades.
- Most cases of schizophrenia develop only when a number of risk factors come together. Genetics, life history (e.g. trauma, infections) and recent environmental factors (e.g. stress, drug use) are among the main classes of risk.
- Cannabis is a risk factor: Studies have shown that heavy use increases risk of developing schizophrenia 2-4 times. However, the vast majority of users never develop psychosis and never develop schizophrenia so the absolute risk remains low.
- Heavier use and stronger cannabis increases risk: about 3% of frequent users develop a schizophrenia spectrum disorder. Onset of schizophrenia is several years earlier among users.
- Use of other drugs such as cocaine and other stimulants also increases risk for psychosis.
- Users who start at an early age may be at greater risk, but this needs more study.
- Persons with other risk factors for schizophrenia who also use cannabis are more likely to develop a psychotic disorder. For example, this is probably true for people with a family history of schizophrenia or those with variants in several genes that regulate specific neurotransmitters in the brain. The combined risk is even higher for heavy users of cannabis. However, this is

preliminary evidence. Further research is also investigating the combination of cannabis use and environmental or historical risks, such as urban living and childhood trauma.

- For people who are already experiencing mild or brief psychotic-like experiences, cannabis use increases the risk of those experiences becoming a full episode of psychosis.
- People diagnosed with first-episode psychosis or schizophrenia are more likely than the general population to report current or prior use of cannabis. However, it is unclear whether cannabis is one of many causes that combines to lead to the onset of schizophrenia, or whether a pre-existing shared vulnerability exists that is responsible for persons developing both a tendency to use cannabis and develop schizophrenia.

### **Cannabis use after the onset of psychosis**

- After the development of a psychotic disorder, cannabis use is associated with increased relapse and less adherence to treatments. Part of the higher relapse rate may relate to the increase in non-adherence. Results are mixed regarding effects on positive symptoms. However, negative symptoms and cognitive functioning are usually unchanged with continuing cannabis use after onset.
- If cannabis leads to the emergence of psychotic symptoms during or after use, this places the person at very high risk of developing a psychotic disorder. In this case, reduction or discontinuation is advised. If a person has an established psychotic disorder and use leads to greater symptoms, then reduction, discontinuation or use of low potency is recommended. Any immediate benefits of marijuana use should be assessed; e.g. self-medication, along with alternative means of gaining relief.
- When cannabis use worsens symptoms of psychosis the effects appear to be dose dependent (e.g. more frequent use or high-THC products may increase risk). CBD partially acts to counter the effects of THC, and high doses of CBD have antipsychotic effects. For people who are tempted to use cannabis with higher amounts of CBD and lower amounts of THC, please consider the following;
  - It is not known what ratio of THC to CBD is optimal to lower risk yet still be acceptable to users desiring psychotropic effects.
  - The absolute amount of CBD found in amounts of cannabis typically consumed is much lower than that used in studies showing antipsychotic effects.
  - Both the doses of CBD, and the ratios of THC to CBD, in black-market cannabis may vary immensely from what is advertised.
  - Counselors should avoid providing information that suggests simply using a product that has CBD will significantly reduce risk.

For more information go to [www.earlypsychosis.ca](http://www.earlypsychosis.ca) (site being revised until April 2019)

*The EPI Advanced Practice is a collaborative group of Health Authority, provincial government, academic and non-government members that supports and improves early psychosis services across BC*