

## CANNABIS AND THE TREATMENT OF DEMENTIA

### Background

Recreational cannabis or marijuana will be legal in Canada as of October 17, 2018. Currently, the use of cannabis for medical purposes is legal if you are authorized by a health care professional and you are registered with a licensed producer or with Health Canada. Access to cannabis for medical purposes will continue to be allowed after the new law takes effect. Read more from Health Canada, here: [Access to cannabis for medical purposes regulation](#).

### What is cannabis?

- Cannabis is a plant that is also referred to as marijuana. It contains a variety of chemical compounds called cannabinoids. The most well-known of these is tetrahydrocannabinol (THC), the compound primarily responsible for the psychoactive effects of the drug (the “high”). Scientists have identified over 70 different cannabinoids in cannabis, each with various effects on the body.
- Cannabinoids also exist naturally within the human body (known as endocannabinoids) or can be produced synthetically. One example of a synthetic cannabinoid is nabilone, a drug used to treat severe nausea and vomiting caused by chemotherapy.

### How does cannabis affect the brain?

- The cannabinoids in cannabis interact with a network of cell receptors throughout the human body called the endocannabinoid system. This system exists in our bodies to interact with the naturally-occurring endocannabinoids, which play a role in regulating a variety of different bodily functions.
- Cannabinoid receptors are found in most tissues and organs, but are particularly numerous in the brain. When cannabis is consumed and its cannabinoids act on these receptors, they alter the release of neurochemicals in the brain, which changes how brain cells communicate with each other. This, in turn, affects various processes within our bodies, including appetite, pain, mood, memory and learning.

### Research on cannabis and Alzheimer’s disease

- Researchers still have a lot to learn about the long-term effects of cannabis on the brain. Some studies have shown that long-term cannabis use is associated with memory problems.
- A few clinical trials have identified that cannabis can help manage behavioural symptoms in people with dementia, including agitation and aggression, but only in some cases.
- Other trials have studied the effects of cannabinoids (including THC and the synthetic nabilone) on behavioural symptoms, but more investigation is required.
- The Alzheimer Society Research Program has funded research on [how endocannabinoids affect mood and anxiety in dementia](#) and [how the synthetic cannabinoid nabilone can treat agitation in Alzheimer’s disease](#).

# Alzheimer Society

C A N A D A

## **What does the Alzheimer Society think?**

While there is ongoing promising research on the effects of cannabis, there is currently no evidence that cannabis is useful for the treatment or prevention of Alzheimer's disease. In fact, some research indicates that long-term use of cannabis may be harmful and result in memory problems. If you are living with Alzheimer's disease or another form of dementia and have concerns or questions about cannabis, the Alzheimer Society recommends that you consult with your family doctor or other health care professional.



ALZHEIMER SOCIETY OF CANADA  
20 EGLINTON AVENUE WEST, 16<sup>TH</sup> FLOOR, TORONTO, ON M4R 1K8  
TEL: 416-488-8772 FAX: 416-322-6656  
WEBSITE: [www.alzheimer.ca](http://www.alzheimer.ca) EMAIL: [info@alzheimer.ca](mailto:info@alzheimer.ca)  
CHARITABLE REGISTRATION #: 11878 4925 RR0001