

As more states legalize marijuana for both medical and recreational use, certain public health issues become increasingly relevant, including -

- The effects of acute marijuana intoxication on driving abilities
- Unintentional ingestion of marijuana products by children
- The relationship between marijuana and other drug use
- Increase marijuana use by adolescents
- Potential increase in health problems related to marijuana use, such as dependence/addiction, psychosis, and pulmonary disorders.

Marijuana is typically consumed via smoking dried marijuana leaves rolled into cigarettes or dabs (marijuana wax) smoked using a pipe. More recently, the use of vaporizers to smoke marijuana (THC) oil has increased to avoid the harmful effects of smoke; however, this method of consumption does not eliminate the other physical and safety concerns.

In 2015, about four million people in the United States met the standards for being diagnosed with a marijuana use disorder. 2 While not everyone that uses marijuana will become addicted, there is a risk associated with its use. Marijuana, like some other brain-altering substances, can be addictive and nearly one in 10 marijuana users will become addicted. Signs that someone might be addicted include: being unable to stop using marijuana, using it even though they know it is causing problems, and using marijuana instead of joining important activities with friends and family.

Marijuana or cannabis can be consumed in different ways. Besides smoking and vaping, marijuana edibles have been produced that include candies, cookies, and beverages. Over the past decades, the typical percentage of tetrahydrocannabinol (THC), the most active ingredient in marijuana, has increased in marijuana and marijuana products, making them more potent. With the slow reaction time of edibles, there is an increased risk of ingesting a toxic level of THC before experiencing the 'high'.

### **Health Effects**

Physical effects of marijuana can include:

- Smoking marijuana can lead to respiratory problems
- Eating marijuana can be linked to greater risk of poisoning
- Using marijuana affects the brain's structure in the developing brain
- Prenatal exposure can cause, in children:
  - Fetal growth restriction
  - Learning disabilities
  - Memory impairment

#### **Educational Effects**

Marijuana use can impact educational achievement. Evidence also suggests that cannabis use in adolescence and early adulthood is associated with poor social outcomes, including unemployment, lower income, and lower levels of life and relationship satisfaction (3). It can lead to and have a potential for:

- 1. Addiction
- 2. Loss of IQ
- 3. Increased risk of schizophrenia, in people with genetic vulnerability

During intoxication of marijuana, people can experience

- 4. Impaired short term memory
- 5. Impairment of cognitive function (attention, judgement, etc.)
- 6. Impaired coordination and balance
- 7. Increased heart rate
- 8. Anxiety, paranoia
- 9. Psychosis
- 10. Long term repeated use of marijuana

THC is a powerful mind and mood altering drug. Large doses can bring on strong distortions of time and space, delusions, mental confusion and panic reactions, and last up to three hours. If consumed in food or drink, the effects begin slower but last longer.

### **Driving Effects**

Because marijuana impairs judgement, coordination, and reaction time, drug impaired drivers are 307 times more likely to be responsible for a car accident that non-impaired drivers. Marijuana is the 2nd most common drug found in impaired drivers. The first most common drug is alcohol (5).

### Marijuana as Medicine

The Food and Drug Administration (FDA) has approved one cannabis-derived and three cannabis-related drug products. All of these drugs are synthetically derived to control the purity and consistency of the concentration of the ingredients for therapeutic use. The evidence for the legitimate medical use of marijuana (THC) or cannabinoids (CBD), a compound found in marijuana, is limited to a few indications:

1. HIV/AIDS

Marinol and Syndros include the active ingredient Dronabinol, which is a synthetic THC that is used to treat anorexia in HIV/AIDS.

Nausea/vomiting related to chemotherapy

Cesamet, containing the active ingredient Nabilone, is similar to the chemical structure of THC, is synthetically derived, and used for nausea/vomiting.

- 3. Neuropathic pain
- 4. Spasticity in multiple sclerosis.
- 5. Seizures

Epidiolex is a purified form of CBD for the treatment of seizures associated with Lennox-Gastut syndrome or Dravet Syndrome.

The FDA also reports that there are no scientific studies that support the medicinal use of smoked or consumed marijuana for medical treatment and no data that supports the safety and general medical use of marijuana as an herbal medicine.

#### **CBD Oil**

CBD oil is cannabinoid which is a non-hallucinogenic component of the marijuana plant. It has been advertised as promoting health benefits and can be found in everyday products such as hand lotion, lip gloss, vaping oils, etc. Since CBD products are unregulated, some may contain THC. THC is fat soluble and is stored in the body, which means it can accumulate with each use. Use of high quantities of CBD oil may leave enough THC in the body to cause impairment. Inconsistency in potency and serving sizes may lead to unintentional high quantities being consumed. This is problematic because it could lead to impairment and a positive drug screen. Unless marijuana or cannabinoids are subject to the FDA process, which includes clinical trials to determine concentration, dosage, interactions with medications, side effects, treatment effectiveness, and long-term effects, CBD products may put the health and safety of consumers at risk.4 It's important to consult with your doctor before using CBD to treat a medical condition as it may interfere with your other medicine.

### Better Brodhead's Position on the use of Marijuana and Cannabinoid Products:

- 1. There is strong evidence that there are risks associated with youth using marijuana.
- 2. The Food and Drug Administration reports that there are no scientific studies that support the medicinal use of smoked or consumed marijuana for medical treatment and no data that supports the safety and general medical use of marijuana as an herbal medicine.
- Unless marijuana or cannabinoids are subject to the FDA process, which includes clinical trials to
  determine concentration, dosage, interactions with medications, side effects, treatment
  effectiveness, and long-term effects, CBD products may put the health and safety of youth at risk.4
- 4. It's important to consult with your doctor if you are considering CBD to treat a medical condition as it may interfere with your other medicine.

### References

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