

IOWA | Health and Human Services

Medical Cannabis:

What Iowa Providers Need to Know

As of 2023, 38 states in the United States have medical cannabis programs, including Iowa. In the last decade, interest in the endocannabinoid system (ECS) and medical cannabis use has grown exponentially. This document serves to educate health care providers and members of the public on the endocannabinoid system and its implications for health in respect to medical cannabis.

Introduction to the Endocannabinoid System (ECS) and its role in Medical Cannabis

The endocannabinoid system (ECS) is a neuromodulatory network involved in central nervous system (CNS) development in addition to impacting cognitive and physiological processes. The first receptor of the ECS was discovered in 1988 and termed CB1. These G-protein receptors were initially thought to only exist in the CNS. CB2 receptors were discovered in 1993 and thought to be located primarily in the immune cells. Cannabinoid receptors are now known to be present throughout the body, with CB1 receptors appearing in the CNS, liver, adipose, lungs, muscles, skin, etc. and CB2 receptors are present in the colon, spleen, bones, liver, and immune system. The ECS is composed of endogenous cannabinoids, cannabinoid receptors, and the enzymes responsible for the synthesis and degradation of endocannabinoids and is the primary target of delta-9 tetrahydrocannabinol (THC), the primary psychoactive compound in cannabis.

Iowa's Qualifying Conditions

In Iowa, a provider may certify a patient for a medical cannabis card who has one of the following debilitating medical conditions:

- Cancer, if the underlying condition or treatment produces one or more the of the following:
  - Severe or chronic pain
  - Nausea or severe vomiting
  - Cachexia or severe wasting
- Multiple sclerosis with severe and persistent muscle spasms
- Any terminal illness with a probable life expectancy of under one year if the illness or its treatment produces one or more of the following:
  - Severe or chronic pain
  - Nausea or severe vomiting
  - Cachexia or severe wasting
- AIDS or HIV as defined in Iowa Code section 141A.1
- Crohn's disease or Ulcerative colitis
- Amyotrophic lateral sclerosis
- Parkinson's disease
- Chronic pain
- Severe, intractable autism with self-injurious or aggressive behaviors
- Post-traumatic stress disorder
- Corticobasal degeneration
- Seizures, including those characteristic of epilepsy

Contraindications

Pregnancy
Potential adverse effects of maternal cannabis use on fetal development and child/adolescent development, including increasing risk of preterm birth, low birth weight, and developmental concerns

Lactation
Clinical evidence shows cannabinoids and their metabolites accumulate in the breast milk. THC concentrations in human breast milk in humans may be eight-fold higher than that found in maternal blood. This may lead to developmental concerns for the breastfeeding infant

Unstable Cardiovascular Conditions
(including ischemic heart disease, arrythmia, systolic and diastolic heart failure, and poorly controlled hypertension)

History of Allergic Reaction to Cannabinoids, Cannabis or Components of Medical Cannabis Preparations

Schizophrenia Spectrum and Other Primary Psychotic Disorders
Cannabis use may exacerbate psychiatric symptoms or trigger psychotic episodes in patients with pre-existing psychiatric conditions

Possible Side Effects

Chronic or long-term

- Cognitive impairment, particularly in young adults whose brains are still developing
- Tolerance to medical cannabis products
- Potential withdrawal symptoms

Acute

- Impaired cognition/altered mental state
- Decreased psychomotor performance may impact driving
- Increased heart rate
- Dizziness
- Dry mouth
- Increased appetite
- Fatigue

Drug Interactions

There have been few clinical studies of investigaing drug interactions between cannabis and other medications. However, the following should be noted:

- THC is a CYP2C9 substrate
- CBD and THC are CYP3A4 substrates
- International Normalized Ration (INR), used in warfarin dosing, may be increased
- Sympathomimetic effects can be additive with CNS depressants and anticholinergics

Recommened Resources

Marijuana (Cannabis) (mothertobaby.org)

Guidance-on-the-Suggested- Use-of-Medical-Cannabis

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