

## Ali, Maya M (CED)

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**From:** Gary Burton <gary@a-mfm.com>  
**Sent:** Thursday, April 14, 2022 10:47 AM  
**To:** Marijuana, CED ABC (CED sponsored)  
**Subject:** Gary Burton Written Comments

You don't often get email from gary@a-mfm.com. [Learn why this is important](#)

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To the board, thank you for giving me the opportunity to speak with you today. I would like to apologize for my strong tone, and unfortunately missing my point in my nervous delivery of my ideas to you yesterday. My name is Gary Burton with American Made Farmers Market and I have a form here that I will be giving each of you today to show you what we are attempting to do. First, I would like to address a couple of comments made by others.

First, the auction system. I put an auction system into my platform initially to help promote the prices of quality products from producers. I thought this was a great idea to help level out prices and promote good products to be worth premium. However, after talking with over 100 dispensaries in Alaska I learned that they had no interest in variable pricing or actually dealing with any selling structure other than normal "First Come First Serve". That is why 9 months later you didn't know this was already tried, because it failed so fast that it hurt my reputation within the industry as they remembered auction = A-MFM for several months creating a new barrier for me.

Second, the Broker/Distribution license idea. When you create a new middleman between a producer and the consumer it will either A) increase the price to the consumer or B) decreases the selling value from the producer or the most common C) it does both in raising buying cost to consumer and decrease selling power and worth from the producer. In addition to this, it creates a new competitive market where the competition is who can acquire the best brands for their brokerage. This will then create an obvious structure to how worth is figured, if you are with Brokerage A those brands are premium and they get best dollar, Brokerage B is a little lower class of growers, that's why they aren't with Brokerage A, so they don't get as much. This already happens in Life when trying to get hired, it's about "who you know" do we really want our cannabis industry to swing into a popularity contest?

Now on to the reason I'm here and what that form I gave you means. American Made Farmers Market is a wholesale platform based here in Alaska to help figure out the issues surrounding our cannabis industry. We created a new measuring stick for the cannabis industry to go by to replace the current THC % that everyone seems to always be chasing even though we know it's a mostly worthless number. We are utilizing MJ-26, the Quality Control form used for employees to test product before retailers get it. What I would like is an amendment to this form to allow us to simply check a box to show this was for A-MFM Reviewers, instead of filling out a lot of extra information. We are also happy to submit each of our forms to you in addition to the MJ-26 form that is filled out for each producer and sample that we review.

Gary J. Burton  
Co-Founder  
[Gary@A-MFM.com](mailto:Gary@A-MFM.com)  
[www.A-MFM.com](http://www.A-MFM.com)  
907-406-0100

**AMERICAN MADE**  
**FARMERS MARKET**



## Ali, Maya M (CED)

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**From:** CED AMCO REGS (CED sponsored)  
**Sent:** Tuesday, April 19, 2022 9:34 AM  
**To:** Kreative Konfections  
**Cc:** CED AMCO REGS (CED sponsored)  
**Subject:** Industrial Hemp Program regs not in line with AMCO's for edible products  
**Attachments:** 11 AAC Ch40-Industrial Hemp Regulations.pdf

Jenny,

Your comment has been received and the Marijuana Control Board should see it at its regular board meeting in June.

Here is a link to the contacts at Department of Agriculture, Industrial Hemp Program <http://plants.alaska.gov/PMCstaff.html> . Robert Carter has been present in a couple of MCB/AMCO meetings, but I do not know who is in charge of regulations or the process the Department follows. You, of course, are welcome to contact them, perhaps there is a subscription list you can sign up for to get notices of when they are amending regulations, but I am not sure.

Jane

Jane P. Sawyer, Regulations Specialist  
DCCED-Alcohol and Marijuana Control Office  
550 W. 7<sup>th</sup> Avenue, Suite 1600  
Anchorage, AK 99501  
907-269-0490



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**From:** Kreative Konfections <kreativekonfectionsak@gmail.com>  
**Sent:** Monday, April 18, 2022 2:12 PM  
**To:** CED AMCO REGS (CED sponsored) <amco.regs@alaska.gov>; Marijuana, CED ABC (CED sponsored) <marijuana@alaska.gov>  
**Subject:** Industrial Hemp Program regs not in line with AMCO's for edible products

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I just found this out today. I wanted you to be aware that this was an issue and see if you have some further contacts that may be helpful.

### The Issue:

The Industrial Hemp program has a regulation limiting products which use Industrial Hemp-derived CBD to a **Delta-9 THC limit of 50mg**. Essentially, they added a redundant regulation back in 2020 and have not yet changed it to keep up with AMCO's regulations. As far as I'm aware, most of us that use CBD in our edible products are using industrial hemp since

it is much easier and cheaper than to get it from regular marijuana plants. Also, there are simply not enough of the high-cbd marijuana plants being grown in the State of Alaska to keep up with the demand for 1:1 products.

I've attached the copy of their regs that they provided to me. Unfortunately, they are not in a searchable PDF format. The relevant reg is on page 36.

**Cutting down the string, here was the original statement from the industrial hemp people as I am trying to renew my hemp endorsement :**

We do have a hemp product sizing of 50 milligrams of delta-9-THC per individual product. We are aware that AMCO increased their THC limit to 100 mg and are currently in the process of a regulation update. As regulations are currently written we cannot accept the labels with 100mg THC because this violates our threshold limitation of 50mg as set out in **11 AAC 40.415. Hemp product sizing.**

**My comment to them in black & their reply to me in red:**

As far as the AMCO limits go - The AMCO board approved the change back last year with an effective date in Sept 2021. The Lt. Gov signed off on it. We were not allowed to put our changes into effect until the Lt. Gov. signed off. I'm really not sure why the Hemp board has not followed suit. Could you please enlighten me as to the problem? **We understand the language of "3 AAC 306.560. Potency limits per serving and transaction for edible marijuana products". This is focused on products derived from cannabis grown and processed under AMCO. Products derived from industrial hemp, or that include a CBD ingredient (or other cannabinoids) in your case, would then be subject to the industrial hemp regulations that became effective April 4, 2020. Please see page 36 of the attached IH regulations for hemp product sizing. As written our regulations do not allow us to deviate to the 100mg Total THC. As stated, we are in the process of a regulation update and will look closely at the THC limits and how it aligns with AMCO regulations.**

**I've just sent them this:**

So what are my options in the meantime now that I know there is a problem? You have effectively strangled my business by not keeping up with AMCO. I've gotten literally hundreds of comments from stores and customers about how much they like the 1:1 THC: CBD products.

This change happened 8 months ago. How long does it take to make a simple wording fix to bring your regs in line with AMCO's? I would also argue that my products are first and foremost regulated by AMCO and they have not been so short-sighted as to place any CBD restrictions as they recognize that the Industrial Hemp Board is responsible for the CBD portion.

Why the Hemp board has a redundant delta-9 regulation is odd in the first place, since the regulation of delta-9 THC for the adult-use marijuana market is supposed to be regulated by AMCO. Since you felt you needed to have the redundancy in your regs, why your regs were not written to be tied to theirs with a simple reference to their edible limit reg without double-stating the wording of it, is also odd.

\*\*\*

Depending on their answer, I may have to cease production of 1:1 THC: CBD edibles until (if) they finally get their reg updated to match AMCO's. In which case, I will also be printing up informational placards to put up at all the retail stores explaining why and asking people to call/email/write the Industrial Hemp Program and AMCO about this issue. I can't find information about if they have a board or who their higher-ups are other than the listing of the "Plant Materials Center Staff". I also have been calling it the "Industrial Hemp Board" instead of the "Industrial Hemp Program", that was my error.

Do you have any contact information for the decision makers at the Industrial Hemp Program?

Thank you,

Jenny Koenig  
Co-Owner / Manager  
Kreative Konfektionstionsak  
Lic #17389  
907-529-5047  
[kreativekonfektionsak@gmail.com](mailto:kreativekonfektionsak@gmail.com)

## Ali, Maya M (CED)

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**From:** Craig, Carrie D (CED)  
**Sent:** Thursday, April 28, 2022 1:20 PM  
**To:** Ace Tate  
**Cc:** Wilson, Joan M (LAW); Higgins, Kevin A (LAW); Alcohol, CED AMCO (CED sponsored); Marijuana, CED ABC (CED sponsored); Helms, Rick J (CED)  
**Subject:** RE: Copy of Letter to AMCO

Good afternoon,

Thank you for your response. First, I notice you sign off as “Concerned Citizen” – are you currently a licensee or applicant? If you have an application in our queues, I may be able to provide you with a timeframe or status if I had additional details about the application.

Second, let me introduce myself, I am Carrie Craig, currently the Acting Director as well as the Records and Licensing Supervisor for both the ABC and MCB Boards.

Third, please allow me to detail our application review process for both alcohol and marijuana applications:

- An application packet and fee are submitted. Keep in mind that the applicant’s public notice must be satisfied within 60 days preceding the submission of the application packet per statute and regulation.
- The application undergoes intake and payment processing.
- The application is placed in our review queue in order of received date.
- Applications are reviewed in great detail by an examiner in received date order, meaning the oldest application in the queue gets reviewed first.
- If there are modifications needed or documents missing, the examiner will notify the applicant.
- When the applicant submits the required corrections, the examiner will review those corrections.
- If the application is deemed complete by the examiner, the examiner will notify the applicant, their local governing body(s) and any applicable state agencies within 10 days of the deemed complete date. The examiner will then schedule that application for the next board meeting which falls within 90 days.
  - Local governing bodies have 60 days to respond to our complete application notice per statute and regulation.
- Usually the board approves the application with delegation at the scheduled meeting. Delegation means that the examiner cannot issue the license until all the required responses have been received and are satisfactory.
- When all the delegation has been met after board approval, the examiner will effectuate and print the license, which is handed to Enforcement.
- The applicant will need to contact our Enforcement Unit to discuss scheduling an inspection, if necessary, and delivery of the license.
- Once the inspection is passed, the license is issued to the applicant and they may begin operations.

Per your request, I have cc’d this email thread to our incoming Director, to our new AAG, to both the alcohol and marijuana board inboxes as well as our Program Coordinator. As I stated previously, I hope this information helps clear up any confusion and if you have further questions or concerns, please let me know as I am always happy to help.

Respectfully,

*Carrie Craig*

Acting Director/Records and Licensing Supervisor  
Alcohol and Marijuana Control Office  
550 West 7<sup>th</sup> Avenue, Suite 1600  
Anchorage, AK 99501  
907-269-0350

**From:** Ace Tate [mailto:dracetate@gmail.com]  
**Sent:** Monday, April 25, 2022 5:41 AM  
**To:** Craig, Carrie D (CED) <carrie.craig@alaska.gov>  
**Subject:** Re: Copy of Letter to AMCO

Good Morning,

Thank you for your response.

I don't think there is miscommunication. And if there is misunderstanding, it is my position that the misunderstanding is occurring by AMCO in relation to what the statute states and requires. I take disagreement with the delay due to processing as well as the onerous regulations and bureaucratic process.

I do not see where statute 17.35.200 (d) that states: **"Within 45 to 90 days after receiving an application or renewal application, the board shall issue an annual registration to the applicant unless the board finds the applicant is not in compliance with regulations enacted pursuant to AS 17.38.190 or the board is notified by the relevant local government that the applicant is not in compliance with ordinances and regulations made pursuant to AS 17.38.210 and in effect at the time of application."** gives a tolling of the time period for staff to queue applications in waiting until they deem those complete.

I find **Sec. 17.38.210** subsection (f) telling about the intent of timelines of 90 days, which states: "(f) If the board does not issue a registration to an applicant **within 90 days of receipt of the application filed in accordance with AS 17.38.200 and does not notify the applicant of the specific permissible reason for its denial,** in writing and within such time period,... the applicant may resubmit its application directly to the local regulatory authority, pursuant to (c) of this section, and the local regulatory authority may issue an annual registration to the applicant. If an application is submitted to a local regulatory authority under this subsection, the board shall forward to the local regulatory authority the application fee paid by the applicant to the board upon request by the local regulatory authority."

I find Sec 17.38.210, subsection (H) compelling about timelines: "(h) A local regulatory authority issuing a registration to an applicant shall do so within 90 days of receipt of the

submitted or resubmitted application unless the local regulatory authority finds and notifies the applicant that the applicant is not in compliance with ordinances and regulations made pursuant to (b) of this section in effect at the time the application is submitted to the local regulatory authority. The local government shall notify the board if an annual registration has been issued to the applicant."

For your position to be correct either one of three things must be present in your interpretation: 1) that the statute means when the board receives it and not when AMCO staff receives it; or 2) that received includes when staff receive it, but AMCO can queue the applications until staff can review and deem the application complete and that tolls this statutory timeline; or 3) that staff delays due to overburdensome regulations, staff shortages, and/or bureaucratic redtape tolls the timeline. Can you please explain what interpretation you are basing AMCO's position on?

In coming to my conclusion, I take a look at the Alaska statutes such as the subdivision statute which requires action within 30 days whether approval, denial, or correction letter on certain plats or the subdivision is deemed complete and approved as a matter of law. I would agree that if staff wrote a correction letter within 90 days then that would toll the timeline until the incomplete or incorrect items were resolved, but that does not seem to be the case. The current status quo is that there is a queue that is bottlenecked and not inline with the statutory timeline.

I also believe that section Sec. 17.38.190 compels regulations that are not unreasonably impactable. And it is my opinion that the current status quo is unreasonably impracticable. Sec. 17.38.190 (a) states: "Rulemaking. (a) Not later than nine months after February 24, 2015, the board shall adopt regulations necessary for implementation of this chapter. **Such regulations shall not prohibit the operation of marijuana establishments, either expressly or through regulations that make their operation unreasonably impracticable.**" And that the current delays coupled with the onerous regulations that have fallen out of compliance with the statute and administrative rulemaking procedures are violative of the enabling statute and Administrative Procedure Act. And as such give nearly every former and prospective licensee cause and standing to pursue legal remedies through AS 44.62 (Administrative Procedure Act); and if not resolved through that process then through litigation in state courts - especially with the knowledge about the number of businesses that have suffered losses and closure due to **impracticable** financial burdens due to the regulations and this bureaucratic process.

Many of the delays could be resolved by simply forwarding submitted applications for approval or denial to the Board. Little items could be corrected on the spot and/or conditionally approved (similar to how the conditional use permit process works). And those conditions could be verified through the site inspection, which occurs by AMCO and local regulatory staff prior to final and official issuance of the permit/license. This delay in the limbo of the AMCO queue, the fees, taxes, and regulations are unreasonably impracticable. Businesses and applicants are being financially harmed by those items.



This is my final good faith attempt to address something that needs to be addressed directly with AMCO staff and the AMCO Board.

Please direct a copy of this communication to the Director (especially the incoming Director who has a legal background) and to the Board, as well as retain a copy of this letter in anticipation of litigation should immediate correction not occur.

Thank you for your time, attention, and hopefully your understanding of how many applicants and businesses feel about this process.

Sincerely,

Concerned Citizen

On Fri, Apr 22, 2022 at 6:23 PM Craig, Carrie D (CED) <[carrie.craig@alaska.gov](mailto:carrie.craig@alaska.gov)> wrote:

Good afternoon,

Thank you for your email. I believe there may have been a misunderstanding or miscommunication. When an application is deemed complete by either an alcohol or marijuana examiner, the application is scheduled for the next board meeting, which is within the 90-day requirement in the statute you reference below. Additionally, within 10 days of a new/transfer/renewal application being deemed complete, the examiner notifies the applicant's local governing body(s) and a variety of other state agencies which is also required by statute and regulations.

It is my understanding the delay you are addressing, is our application review time. Over the past six months or so, processing times have been slowed due to training new examiners on these complex applications and license renewal cycles. Our office has been very transparent in recent meetings that there is a backlog of applications for marijuana. For your convenience and information, I have attached the licensing report from the last three Marijuana Control Board meetings and all meeting documents can be viewed on our website here: for alcohol <https://www.commerce.alaska.gov/web/amco/ABCMeetingDocuments.aspx> and for marijuana <https://www.commerce.alaska.gov/web/amco/MCBMeetingDocuments>. As of today, there are approximately 64 various marijuana applications in our queue waiting for review by an examiner.

I hope this information helps clear up any confusion and if you have further questions or concerns, please let me know as I am always happy to help.

Thank you again and have a great weekend,

*Carrie Craig*

Acting Director/Records and Licensing Supervisor

Alcohol and Marijuana Control Office

550 West 7<sup>th</sup> Avenue, Suite 1600

Anchorage, AK 99501

907-269-0350

---

**From:** Ace Tate <[dracetate@gmail.com](mailto:dracetate@gmail.com)>

**Sent:** Sunday, April 17, 2022 1:51 PM

**To:** Caltagirone, Victoria L (CED) <[victoria.caltagirone@alaska.gov](mailto:victoria.caltagirone@alaska.gov)>; AMCO Admin (CED sponsored) <[amco.admin@alaska.gov](mailto:amco.admin@alaska.gov)>

**Subject:** Copy of Letter to AMCO

Some people who received this message don't often get email from [dracetate@gmail.com](mailto:dracetate@gmail.com). [Learn why this is important](#)

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Dear Board,

I am writing out of concern that AMCO has become an obstacle to good business and not a vehicle for good business.

I spoke recently with staff of AMCO regarding concerns about the extensive backlog of applications that has resulted in numerous prospective businesses unable to continue. I was told that once an application is deemed complete, review staff are taking upwards of 8 months to forward applications for prospective approval by the board.

To be clear, statute 17.35.200 (d) states: **Within 45 to 90 days after receiving an application or renewal application, the board shall issue an annual registration to the applicant unless the board finds the applicant is not in compliance with regulations enacted pursuant to AS 17.38.190 or the board is notified by the relevant local government that the applicant is not in compliance with ordinances and regulations made pursuant to AS 17.38.210 and in effect at the time of application.**

If the current bureaucratic process is so overly burdensome that it can't keep up with the statutory timeline then it needs to be changed. Please immediately address this delay that is out of line with the intended purpose of the enabling statute (17.38 et seq). If this is not addressed and corrected, legal options of using the court system to seek a writ of mandamus to order AMCO to fulfill its duties and correct this abuse of discretion will have to be pursued.

In addition, please retain copies of this email request and any resulting action or inaction by the board and AMCO in anticipation of litigation should this immediate correction not occur.

Sincerely,

Concerned Citizen

## Ali, Maya M (CED)

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**From:** Lacy Wilcox <president@alaskamia.org>  
**Sent:** Thursday, June 9, 2022 7:41 PM  
**To:** Marijuana, CED ABC (CED sponsored)  
**Subject:** Comment on Reg Project Re Transfer on License  
**Attachments:** AMIA Comment on License Location Transfer 6.8.2022.pdf

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Please see the attached public comment letter from the Alaska Marijuana Industry Association (AMIA). Apologies we missed the official comment deadline, but we thought better to submit here than not at all.

Please include in Marijuana Mailbox if possible.

Thank you kindly,

**Lacy Wilcox, Legislative Liaison**

Alaska Marijuana Industry Association  
[president@alaskamia.org](mailto:president@alaskamia.org)  
(907) 419-0961



June 8, 2022

Via email to: [marijuana@alaska.gov](mailto:marijuana@alaska.gov)

Subject: Public Comment on changes to Title 3, Chapter 306 of the Alaska Administrative Code dealing with transfer of license to another location.



Dear Honorable Marijuana Control Board Members,

The Marijuana Control Board proposes to adopt regulation changes in 3 AAC 306 of the Alaska Administrative Code, dealing with the transfer of license to another location, Several sections and provisions are proposed to be amended to accommodate this concept.

**We support this regulation change as written**

The Alaska Marijuana Industry Association supports these changes as written. The regulation changes to 3 AAC 306.046 in addition to the language clean up, are consistent with the regulation change: transfer of a license to another location. Moreover, it encourages a streamlined process should the board be faced with this situation in the future. An example of how a business may utilize this new regulation, could potentially be to move from a landlord who raised a licensee's rent with malicious intent. Another example could be a growing business who was able to build or buy a building of their own to vertically integrate into. It creates a barrier of protection for the stakeholders in this industry in that manner. We encourage the Marijuana Control Board to adopt these changes as written.

Kind Regards,

Lacy Wilcox, Legislative Liaison  
On behalf of,  
AMIA Board of Directors

## Ali, Maya M (CED)

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**From:** Lacy Wilcox <president@alaskamia.org>  
**Sent:** Thursday, June 9, 2022 7:44 PM  
**To:** Marijuana, CED ABC (CED sponsored)  
**Subject:** Comment on Reg Project Re Waste Management  
**Attachments:** AMIA Comment on Waste Management 6.8.2022.pdf

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Please see the attached public comment letter from the Alaska Marijuana Industry Association (AMIA). Apologies we missed the official comment deadline, but we thought better to submit here than not at all.

Please include in Marijuana Mailbox if possible.

Thank you kindly,

**Lacy Wilcox, Legislative Liaison**  
Alaska Marijuana Industry Association  
[president@alaskamia.org](mailto:president@alaskamia.org)  
(907) 419-0961



June 8, 2022

Via email to: [marijuana@alaska.gov](mailto:marijuana@alaska.gov)

Subject: Public Comment on changes in 3 AAC 306 of the Alaska Administrative Code, dealing with waste management



Dear Honorable Marijuana Control Board Members,

The Marijuana Control Board proposes to adopt regulation changes in 3 AAC 306 of the Alaska Administrative Code, dealing with waste management, including the following 3 AAC 306.740(c)(1) is proposed to be repealed.

**We support this regulation change as written**

This change would remove the language that requires a business to fill out the form currency required, stating that the business has plant waste to dispose of. Ultimately this frees up businesses from dual logging this information, as it is also recorded in the waste management tracking system, which is required under 3 AAC 306.730. The repeal of 3 AAC 306.740(c)(1) is an additional layer of sustainability to the business as well, by saving employees their valuable time logging this information and by removing added expenses to the business. The businesses would otherwise be paying in staffing this seemingly unnecessary step. We strongly encourage the Marijuana Control Board to support and adopt this change as written.

Kind Regards,

Lacy Wilcox, Legislative Liaison  
On behalf of,  
AMIA Board of Directors

## Ali, Maya M (CED)

---

**From:** thinkon908@aol.com  
**Sent:** Tuesday, May 31, 2022 4:04 AM  
**To:** Klinkhart, Glen Edward (DOR); Marijuana, CED ABC (CED sponsored); Marijuana Licensing (CED sponsored); CED AMCO REGS (CED sponsored); AMCO Admin (CED sponsored); Alcohol Licensing, CED ABC (CED sponsored); AMCO Event Permits (CED sponsored); CED AMCO Marijuana Handler (CED sponsored); Marijuana Licensing (CED sponsored); CED AMCO Enforcement (CED sponsored)  
**Subject:** FROM: DAVID EVANS, ESQ. SENIOR COUNSEL CIVEL TO: AMCO STAFF  
**Attachments:** CONSUMER WARNINGS ON THE RISKS OF MARIJUANA PRODUCTS.APRIL.24.2022.pdf; GOVERNMENT.WARNINGS.pdf; MODEL.MARIJUANA.CANNABIS.RIGHT.TO.KNOW.BILL.5.5.2022.doc

You don't often get email from thinkon908@aol.com. [Learn why this is important](#)

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Dear AMCO staff

Attached is our paper about requiring right to know warnings to cannabis/marijuana consumers. You have a duty to warn them. Also is a model bill on right to know and THC research. I suggest you get them passed. Other states are issuing warnings.

We are actively seeking plaintiffs who have been damaged by your products. We are looking into medical malpractice, product liability claims, environmental claims, server liability and violations of federal laws and RICO. We plan on having these matters litigated.

We hope to persuade you to protect the public. You have now been put on notice and face litigation if you do not protect the public.

You will receive no further warnings.

David G. Evans, Esq.

Senior Counsel  
Cannabis Industry Victims Educating Litigators (CIVEL)  
203 Main St. Suite 149  
Flemington, NJ 08822  
908-963-0254  
[www.civel.org](http://www.civel.org)

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**CONSUMER WARNINGS ON THE RISKS OF MARIJUANA PRODUCTS ARE  
REQUIRED**

Cannabis Industry Victims Educating Litigators  
203 Main St. # 149  
Flemington, NJ 08822  
[www.civel.org](http://www.civel.org)  
seniorcounsel@civel.org  
Updated April 24, 2022

**This paper is dedicated to those whose loved ones who have been lost or injured by marijuana caused addiction, mental illness, automobile crashes or physical disease. May their losses be not in vain**

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## **Introduction**

Even though marijuana production, possession, and distribution are illegal under the federal Controlled Substances Act and the federal Food and Drug Administration medicine and food laws, some states have “legalized” marijuana and/or cannabidiol (CBD) under state law due to lobbying by the marijuana industry. However, producing and selling marijuana is still illegal under federal law. <sup>1</sup> The marijuana industry is using the playbook of the tobacco and opiate industries in manipulating public opinion. This paper discusses the many harms caused by marijuana use that are amply documented by science. This paper advocates for consumer protections that are sorely needed.

We use the term “marijuana” because that is the term for most of the cannabis products that are sold. However, this paper is concerned with all plant derived or synthetic cannabinoid products that require warnings such as cannabidiol (CBD) and Delta 8-THC, Delta 9-THC, Delta 10-THC and THC-O-Acetate and tetrahydrocannabivarin (THCV). <sup>2</sup> Warnings should be provided on all products of the cannabis plant that are intended for human consumption.

The word “cannabis” refers to all products derived from the plant *Cannabis sativa*. The cannabis plant contains about 540 chemical substances. The word “marijuana” refers to parts of or products from the plant *Cannabis sativa* that contain substantial amounts of tetrahydrocannabinol (THC). THC is the substance that’s primarily responsible for the effects of marijuana on a person’s mental state. Some cannabis plants contain very little THC. Under U.S. law, these plants are considered “industrial hemp” rather than marijuana.

The states have done very little to provide the warnings and the other consumer protections that normally attach to dangerous products that are consumed for recreation or as a food supplement or used as medicines. The harms of marijuana justify warnings to the consumers of marijuana. We urge the states to do their duty to public health and safety. Even though some states have recklessly legalized marijuana, we must protect the victims of these decisions by warning them.

The best way for people to avoid these harms is to avoid marijuana and other cannabis products. This paper does not endorse marijuana or cannabis use in any form and opposes its use and legalization and commercialization. We hope that consumers will be deterred from marijuana and cannabis use. The exception are the FDA approved cannabinoid-based medicines that can be used under medical direction. They have detailed warnings.

Marijuana and other cannabis products are inherently dangerous substances and even with warnings and “regulation” it is not safe to use or sell or distribute them. The sellers and distributors of these products should be civilly liable for any damages. This includes “medical” marijuana care providers.

CIVEL educates lawyers on how to make the marijuana industry accountable to the many victims of the marijuana industry. We are currently supporting litigation against the marijuana

industry. By this paper we intend to warn the marijuana industry and government officials so if they are sued, they will not be able to say they were not warned.

### **Informed Consent/duty to Warn**

There are definite well-documented risks of physical and mental damage from marijuana and other cannabinoid products that require warnings to consumers. For example, any medicine that the Food and Drug Administration approves requires warnings by the product manufacturer or seller or medical care provider. This is the case where marijuana or any other products of cannabis such as hemp and cannabidiol (CBD) are to be approved for any use by the FDA for medicinal purposes.

The FDA has not approved the cannabis plant for any medical use. However, the FDA has approved several drugs that contain individual cannabinoids. Epidiolex, which contains a purified form of CBD derived from cannabis, was approved for the treatment of seizures associated with Lennox-Gastaut syndrome or Dravet syndrome, two rare and severe forms of epilepsy. Marinol and Syndros, which contain dronabinol (synthetic THC), and Cesamet, which contains nabilone (synthetic chemical similar to THC) are approved by the FDA. Dronabinol and nabilone are used to treat nausea and vomiting caused by cancer chemotherapy. Dronabinol is also used to treat loss of appetite and weight loss in people with HIV/AIDS.

The few Cannabinoid products that have been approved for use by the FDA, including Epidiolex, Marinol and Cesamet have extensive warnings of the many risks of use. The FDA drug label for Marinol issues a warning that the drug “may cause psychiatric and cognitive effects and impair mental and/or physical abilities. Avoid use in patients with psychiatric history.” The FDA drug label for prescription CBD in the form of Epidiolex issues a warning that the drug may cause “Hepatocellular injury (liver), somnolence and sedation, suicidal behavior and ideation.”<sup>3</sup> While these boxed warnings exist on low potency prescription cannabis products, there may be no warnings on much higher potency federally illegal marijuana products sold at marijuana stores or dispensaries.

Unless there are proper labeling and warnings the consumer has no complete way of knowing the potency or purity of the product, as state-legalized marijuana lacks the quality control of FDA-approved medicines or foods, although in some states the percentage of tetrahydrocannabinol (THC) and cannabidiol (CBD) are listed on the products sold in state-legalized stores or dispensaries.

Warning should also be given for cannabis products used for purposes such as recreational use or as a food or dietary supplement. Dietary supplements are products taken by mouth that contain a "dietary ingredient." Dietary ingredients include vitamins, minerals, amino acids, and herbs or botanicals, as well as other substances that can be used to supplement the diet. Dietary supplements come in many forms, including tablets, capsules, powders, energy bars, and liquids.

The FDA has determined that products containing THC or CBD cannot be sold legally as dietary supplements.

Warnings must be:

1. Accurate
2. Clear
3. Consistent
4. Fully descriptive
5. Have updated information as to all of the marijuana's effects.
6. Direct
7. Unequivocal
8. Sufficiently forceful to convey risk

Vagueness may be overcome when read as whole the warning communicates meaning as to risks that cannot be mistaken. We must look at meaning and informational content of warning language and its form and manner of expression. Does it communicate with sufficient intensity the risks involved in taking marijuana? Its adequacy may be based on warning of most likely risks.

Warnings should be developed carefully to determine who is the audience and be audience appropriate. All reasonable risks and hazards need to be considered. This can include reports of injuries, prior claims, consumer complaints, research findings and expert analysis.

Even if there are warnings the courts may apply the doctrine of comparative negligence that assesses the relative fault and wrongdoing of both the parties when damage results. A party may not be barred from recovering damages in a tort action so long as his negligence or fault does not equal or exceed the combined negligence or fault of the other parties involved. Questions of negligence, inequality between the parties, due care, proximate cause and concurrent negligence present issues of fact for legal determination.

## **1. General Health Risks**

There are definite health risks associated with the consumption of cannabis derivatives such as tetrahydrocannabinol (THC) and CBD. These health risks can be idiosyncratic and unpredictable in nature even with low potency marijuana. Health risks can also be dependent on biochemical, mental health, and/or other physical and psychological factors. The risks are many and include:

- Psychosis
- Suicides
- Lung damage
- Cancer
- Brain damage

Neonatal Exposure  
Opioid abuse  
Motor vehicle and home and work place accidents  
Cannabis Hyperemesis Syndrome. 4

## Conclusion

Use of marijuana products can cause damage to the user's physical and/or mental health.

## 2. Risks to Unborn Children and Parents

There are health risks for mothers and fathers and unborn children associated with the consumption of marijuana. For women who are pregnant, breast-feeding, or planning on becoming pregnant, a warning should be provided. Irreparable damage is being done to the DNA of both male and females and their children by marijuana use. The basic scientific understanding of the damage to DNA has been known for decades. 5

Cannabinoid use during pregnancy can be harmful to a baby's health. This includes THC and CBD. The chemicals in marijuana (in particular, tetrahydrocannabinol (THC) pass through the mother's system to the baby and may harm the baby's development. Although more research is needed to better understand how marijuana may affect mothers and their babies during pregnancy, the American College of Obstetricians and Gynecologists (ACOG) strongly advises that pregnant women not use marijuana. 6

The Colorado School of Public Health reports that there is a 50% increase in low birth weights among women who use marijuana during pregnancy. Low birth weight sets the stage for future health problems including infection and time spent in neonatal intensive care. 7

Prenatal marijuana use has been linked with:

- a. Developmental and neurological disorders and learning deficits in children.
- b. Premature births, miscarriages, stillbirths.
- c. An increased likelihood of a person using marijuana as a young adult.
- d. The American Medical Association states that marijuana use may be linked with low birth weight, premature birth, behavioral and other problems in young children.
- e. Birth defects and childhood cancer.
- f. Reproductive toxicity affecting a father's sperm in spermatogenesis, which is the process of the formation of male gamete including meiosis and formation of sperm cells.
- g. Data implicate cannabinoids including cannabidiol (CBD) in a diverse spectrum of heritable congenital anomalies. 8

Marijuana use is not recommended in pregnancy and is associated with poor health at birth 9 and future cognitive and emotional problems in children. 10

Despite these known risks, a recent investigation into regulated cannabis dispensaries in Colorado found that employees, when asked, recommended cannabis for pregnancy-associated morning sickness 69% of the time and usually did not recommend speaking to the woman's physician first. 11

## Conclusion

There are physical and mental health risks for mothers and fathers and unborn children associated with the consumption of marijuana.

### 3. Risks to Mental Health

Marijuana use, especially frequently (daily or nearly daily) and in high potency, can cause disorientation and sometimes unpleasant thoughts or feelings of anxiety and paranoia. People who use marijuana are more likely to develop a temporary psychosis (not knowing what is real, hallucinations, and paranoia) and long-lasting mental disorders, including schizophrenia (a type of mental illness where people might see or hear things that are not really there). The association between marijuana and schizophrenia is stronger in people who start using marijuana at an earlier age and use marijuana more frequently. Marijuana use has also been linked to depression, social anxiety, and thoughts of suicide, suicide attempts, and suicide. 12

Marijuana use can trigger measurable psychotic symptoms (observable in clinical studies of purified THC) in 40% of individuals with no family history of a psychosis. 13 In regular recreational users, it can trigger full-fledged chronic psychotic disorders at a greater rate than any other recreational drug, i.e., more than LSD, PCP, cocaine, methamphetamine, amphetamine or alcohol (observable in large epidemiological and register-based studies). 14. The risk is elevated about 5-fold by regular use of high potency marijuana. 15 The facts illustrating that marijuana is a causal factor for psychoses were published in the journal Addiction. 16

The major damage found by the National Academies of Sciences Engineering and Medicine in their 2017 report "The Health Effects of Cannabis and Cannabinoids" was that marijuana use was strongly associated with a greater risk of developing schizophrenia. Subsequent research has only strengthened this connection. 17

The American Psychiatric Association states that:

There is no current scientific evidence that cannabis is in any way beneficial for the treatment of any psychiatric disorder. In contrast, current evidence supports, at minimum, a strong association of cannabis use with the onset of psychiatric disorders. Adolescents are particularly vulnerable to harm, given the effects of cannabis on neurological development.



Medical treatment should be evidence-based and determined by professional standards of care; it should not be authorized by ballot initiatives.

No medication approved by the FDA is smoked. Cannabis that is dispensed under a state-authorized program is not a specific product with controlled dosages. The buyer has no complete way of knowing the strength or purity of the product, as cannabis lacks the quality control of FDA-approved medicines, although in some states the percentage of delta-9tetrahydrocannabinol (THC) and cannabidiol (CBD) are listed on the products sold in state-legalized stores or dispensaries.

Prescribers and patients should be aware that the dosage administered by smoking is related to the depth and duration of the inhalation and therefore difficult to standardize. The content and potency of various Cannabinoids contained in cannabis can also vary, making dose standardization a challenging task.

Even non-smoked means of consumption, such as edible forms of cannabis, tinctures, and ointments have variable absorption, bio-availability, and a range of phytocannabinoids and other biologically active compounds which are not measured or controlled for in production.

Physicians who recommend use of cannabis for "medical" purposes should be fully aware of the risks and liabilities inherent in doing so.

The APA does not endorse cannabis as medicine. 18

The state of Colorado warns that use of marijuana concentrates may lead to psychotic symptoms and/or psychotic disorder (delusions, hallucinations, or difficulty distinguishing reality) and mental health symptoms/problems. 19

## Conclusion

Use of marijuana products can cause severe damage to the user's mental health including psychotic symptoms and/or psychotic disorder (delusions, hallucinations, or difficulty distinguishing reality) and other mental health symptoms and problems.

## **4. Risks of Suicide**

There is significant evidence linking cannabis use and suicide, especially in teens and young adults. 20 In 2019, a review of multiple publications found that adolescent cannabis use was associated with increased depression in young adulthood and a tripling of the risk of a suicide attempt. 21 Marijuana is the most prevalent substance found in completed teen suicide in the state of Colorado. 22 A population-based cohort study of Medicaid-enrolled youths with mood disorders found that the presence of cannabis use disorder was significantly associated with an

increased risk of nonfatal self-harm, all-cause mortality, and death by unintentional overdose and homicide. 23

#### Conclusion

Use of marijuana products can cause users to become suicidal or to engage in self-harm.

### **5. Damage to Mental Ability**

Research shows that exposure to marijuana is associated with cognitive decline, poor memory, inattention, impaired learning performance, reduced dopamine brain response-associated emotionality, and increased addiction severity in young adults. Marijuana use directly affects brain function - specifically the parts of the brain responsible for memory, learning, attention, decision-making, coordination, emotions, and reaction time. Developing brains, such as those in babies, children, and teenagers, are especially susceptible to the harmful effects of marijuana and tetrahydrocannabinol (THC). 24

#### Conclusion

Use of marijuana products can cause damage to the user's mental functioning.

### **6. Cardiac and Lung Damage**

There is an emerging literature on serious cardiac events being triggered by potent marijuana use in the young, including fatalities. Stroke, arrhythmias, and cardiomyopathies are major outcomes of concern. Smoked marijuana, regardless of how it is smoked, can harm lung tissues and cause scarring and damage to small blood vessels. 25

#### Conclusion

Use of marijuana products can cause damage to the user's heart and cardiac system and lungs.

### **7. Risks of Cancer**

Smoked marijuana, regardless of how it is smoked, can harm lung tissues and cause scarring and damage to small blood vessels. Smoke from marijuana has many of the same toxins, irritants, and carcinogens (cancer-causing chemicals) as tobacco smoke. Smoking marijuana can also lead to a greater risk of bronchitis, cough, and mucus production, though these symptoms generally improve when marijuana smokers quit. 26

Independent studies have shown that the risk for testicular cancer is doubled by regular use. 27

Marijuana use may also cause other cancers. Experimental studies show that Cannabinoids are an important cause of community-wide genotoxicity impacting both birth defect and cancer epidemiology. For example, the State of California has declared that marijuana smoke has been identified through reputable research as carcinogenic, and relates to or causes developmental malformations (teratogenic), and causing other potential harms to the user and those exposed to marijuana smoke. Marijuana may be involved with head and neck cancer, lung cancer, bladder cancer, brain cancer, and testicular cancer and childhood cancers. 28

Conclusion

Use of marijuana products can cause cancer.

### **8. Risks of Depression**

Adolescents who use cannabis have a significant increased risk of depression and suicidality in adulthood. 29 In a study of 23,217 individuals. Researchers from McGill and Oxford Universities carried out a systematic review and meta-analysis that included 23,217 individuals from 11 international studies. They found that cannabis use among adolescents is associated with significant increased risk of depression and suicidality in adulthood. The population attributable risk was found to be around 7%, which translates to more than 400,000 adolescent cases of cannabis attributed depression. 30.

Conclusion

Use of marijuana products can cause depression in the user.

### **9. Damage to children**

The rate of marijuana exposures in the “medical” marijuana states among children under the age of six was reported in a study published in Clinical Pediatrics. The data comes from the National Poison Data System. 75% percent of the children ingested edible marijuana products such as marijuana-infused candy. Clinical effects include drowsiness or lethargy, ataxia (failure of muscle coordination), agitation or irritability, confusion and coma, respiratory depression, and single or multiple seizures. Because more states are likely to pass legislation legalizing medical and recreational use of marijuana, increased efforts to establish child-focused safety requirements regarding packaging of commercially sold marijuana products are needed to help prevent more children from being exposed to this drug. 31

In Colorado, one in six infants and toddlers hospitalized for lung inflammation are testing positive for marijuana exposure. This has been a 100% increase since legalization (10% to 21%). Nonwhite kids are more likely to be exposed than white kids. 32

Marijuana related emergency room visits by Colorado teens is substantially on the rise. They see more kids with psychotic symptoms and other mental health problems and chronic vomiting due to marijuana use. 33

Marijuana use is tied to concurrent and lasting changes in adolescent cognitive functions, according to a study that tracked high school students for 4 years. Of particular concern was the finding that marijuana use was associated with lasting effects on a measure of inhibitory control, which is a risk factor for other addictive behaviors, and might explain why early onset marijuana use is a risk factor for other addictions. 34

#### Conclusion

Use of marijuana products can cause damage to the physical and/or mental health of children.

### **10. Brain Development in Children**

Marijuana affects brain development. Developing brains, such as those in babies, children, and teenagers, are especially susceptible to the harmful effects of marijuana and tetrahydrocannabinol (THC). 35 Heavy marijuana use has shown visible negative alterations in both brain structure and function. 36

Research shows that infants exposed to THC before birth suffer a wide array of neurocognitive and neurobehavioral deficits that cascade throughout childhood and adolescence, resulting in adverse social, health, educational and economic consequences. Exposing the developing brain to marijuana can prime the brain to addiction and have potential negative consequences. Although scientists are still learning about the effects of marijuana on developing brains, studies suggest that marijuana use by mothers during pregnancy could be linked to problems with attention, memory, problem-solving skills, and behavior in their children. 37

#### Conclusion

Use of marijuana products can damage brain development in children.

### **11. Risks of High Potency Marijuana.**

Marijuana products today can be up to 99% THC, the psychoactive chemical in marijuana. 38 The amount of THC in marijuana has been increasing steadily over the past few decades. For a person who's new to marijuana use, this may mean exposure to higher THC levels with a greater chance of a harmful reaction including mental illness.

Limiting the availability of high potency marijuana may be associated with decreased marijuana addiction and mental illness. 39 However, this does not imply that low potency marijuana could

be safely or more safely used. Even in small low potency amounts, damage of all kinds can be done to those of all ages and their children. 40

Conclusion

Marijuana products may contain high potency marijuana. High potency marijuana is known to cause many mental health and physical health problems.

## **12. Cannabis Hyperemesis Syndrome (CHS)**

CHS is now commonly recognized in hospital emergency rooms in long term marijuana users. CHS is potentially fatal and associated with painful retching, vomiting, and abdominal pain. 41

The state of Colorado warns that use of marijuana concentrates may lead to Cannabis Hyperemesis Syndrome (CHS) (uncontrolled and repetitive vomiting). 42

Conclusion

Use of marijuana products can cause damage to the user's physical and/or mental health. It can cause uncontrollable and repetitive vomiting.

## **13. Risks of Violence**

According to research studies, marijuana use is linked to aggressive behavior and domestic violence and can cause or exacerbate psychoses and produces paranoias all of which can lead to violence and homicide. 43

PTSD patients who were marijuana users have been found to make less progress in overcoming their condition and were more likely to be violent. Initiating marijuana use after PTSD treatment was associated with worse PTSD symptoms, more violent behavior, and alcohol use. Marijuana may actually worsen PTSD symptoms or nullify the benefits of specialized, intensive treatment. 44

Conclusion

Use of marijuana products can cause the user to become violent.

## **14. Driving and Operation of Machinery**

Cognitive capabilities and perceptions can be immediately impaired due to the THC in marijuana and Cannabinoids such as CBD. This can include low levels of THC. THC can impair important skills required for safe driving or operation of machinery by slowing reaction time and the ability to make decisions, impairing coordination, and distorting perception. 45

Epidemiology data from road traffic arrests and fatalities indicate that after alcohol, THC is the most frequently detected psychoactive substance among driving populations. The data clearly shows a reduced ability to drive safely after THC use. 46 As stated in the Surgeon General's 2016 report Facing Addiction in America, marijuana's THC is a serious threat to the physical and mental health of our children and that its use is a major hazard to public safety. 47

Based on state data, the state of Colorado warns that use of marijuana's THC may impair the ability to drive or operate machinery. 48

THC causes a decline in motor performance resulting in delayed reaction times and reduced ability to stay in one's own driving lane. Cognitive functions decline reducing one's ability to maintain sustained attention to driving conditions and leading to poor decision-making, impulse control and memory. 49. The adverse effects of THC on driving safety have been proven with controlled laboratory experiments driving simulators and real-world driving experiments 50

Chronic users build up a tolerance to some, but not all of the effects of THC. To compensate for their tolerance, chronic users consume higher quantities of a drug to obtain their desired effect and are just as impaired as occasional users. 51

#### Conclusion

Use of marijuana products will cause the user to be unsafe in driving a motor vehicle or operating machinery.

### **15. Post-Traumatic Stress Disorder (PTSD)**

The use of marijuana can make PTSD worse and increase the risk of suicide. 52 Those who have PTSD should be warned about its use. The only blind sample clinical study on the response of PTSD patients to marijuana found no benefit as compared to a placebo. 53

#### Conclusion

Use of marijuana products may be harmful to people with Post Traumatic Stress Disorder.

### **16. Harmful Drug and Medicine Interactions**

There are many concerns about the interaction between marijuana (cannabis) and medications. Cannabinoid levels can be increased by other medications. Cannabinoids can affect levels of other drugs. Smoking marijuana can increase clearance of some drugs. Additive effects can occur with other drugs. There are potential "red flag" interactions. 54

Consumers need warning labels on some prescription medications from the pharmacy such as “Do not take with alcohol” or “Do not take with grapefruit juice.” Pharmacies can check for medication interactions.

The marijuana plant has over 400 chemicals that include tetrahydrocannabinol (THC), the psychoactive chemical and cannabidiol (CBD). These products are metabolized in the liver and may alter the metabolism of many medications resulting in toxicity or under dosing of the medications. There are 379 drug interactions with THC, 25 major and 354 minor. There are 539 drug interactions with cannabidiol (CBD), 9 major and 482 moderate. Drug interactions with marijuana products can be life threatening. Marijuana and CBD and all Cannabinoids, may interact with the following medicines:

Sedatives - such as Barbiturates, lorazepam (Klonopin), lorazepam (Ativan), phenobarbital (Donnatal), zolpidem (Ambien) and others. The sedative effect can be increased.

Theophylline - decrease the effects of theophylline which is bronchodilator - it opens up the airways in the user’s lungs to make breathing easier.

Disulfiram (Antabuse) - using it and marijuana can cause agitation, trouble sleeping, and irritability.

Fluoxetine (Prozac) - using it and marijuana can cause irritation, nervousness, jitteriness, and excitation (hypomania).

Warfarin (Coumadin) - using it and marijuana can increase the chance of bruising and bleeding. 55

Marijuana and CBD may also interact with

Zonisamide

Eslicarbazepine acetate (Aptiom—Sunovion)

Cyclosporine Calcium channel blockers

Benzodiazepines

Haloperidol (Haldol—Johnson & Johnson)

Atorvastatin (Lipitor—Pfizer)

Simvastatin

Antiepileptic drugs (caution with children)

Clobazam

Corticosteroids

Some hospital-administered antibiotics

Medicines that make patients lethargic (marijuana can accentuate that)

Marijuana increases the level or effect of a lot of different medications. 56

Alcohol

The combination of alcohol and marijuana can have severe psychomotor effects impairing driving. 57

CBD

CBD may potentially interact in a negative way with anti-epilepsy drugs such as:

Carbamazepine (Tegretol)  
Phenytoin (Dilantin)  
Phenobarbital (Luminal, Solfoton, Tedral)  
Primidone (anti-seizure) 58

#### Conclusion

Use of marijuana products can cause a harmful interaction with other drugs or medicines. Consult the user's health care provider before use. Inform the user's health care provider of any medications being taken.

### **17. Risks of Immediate Side Effects**

Marijuana users should be warned of the possibility that marijuana may cause immediate side effects such as headache, dizziness, drowsiness, dry mouth, nausea, and paranoid thinking. Smoking cannabis might also increase appetite, increase heart rate, change blood pressure, and impair mental functioning. Some reports suggest that smoking cannabis may also increase the risk of heart problems such as heart attack and abnormal heart rhythm. 59

#### Conclusion

Use of marijuana products can cause immediate harmful side effects.

### **18. Unlawful Use Outside of the State**

Some state laws that "legalize" marijuana are clear that it can only be used in that state. The product is unlawful outside the state. 60

#### Conclusion

Marijuana products cannot be used outside of certain states or be taken across state lines.

### **19. Lack of Regulatory Control**

In some states the marijuana product may be produced without regulatory oversight for health, safety, or efficacy and consumers should be warned if this is the case. The State of Colorado warns about this. 61

#### Conclusion

Marijuana products may be produced without regulatory oversight for health, safety, or efficacy.



## **20. Intoxication May Be Delayed**

The intoxicating effects of all forms of marijuana, including marijuana edibles may be delayed. Owing to the idiosyncratic and unpredictable effects of marijuana, there is no way in which its safety and efficacy can be assured. Those who use any cannabinoid product need to be fully apprised of the risks involved in the use of these drugs. 62

### **Conclusion**

Use of marijuana products may cause intoxication that may be delayed.

## **21. Contamination**

Marijuana consumers should be warned that there may be nonorganic pesticides, fungicides, and herbicides used during the cultivation of the marijuana. The pesticides and fungicides used in marijuana growing are dangerous chemicals. 63 In addition, the cannabis plant is known as a hyper-accumulator; as it grows, it can take up unusually high levels of toxic heavy metals from the soil or growing medium through its roots and potentially into its flowers. 64

There have been reports of contamination of cannabis/cannabinoid products with microorganisms. 65

### **Conclusion**

Marijuana products may contain microorganisms, nonorganic pesticides, fungicides, herbicides and heavy metals acquired during the cultivation of the marijuana.

## **22. Age Limits**

There are age limits for “legal” consumption under the state laws. However, this implies that marijuana can be safely used or “regulated” if there are age limits. Age limits are of no avail with a substance that has known harmful physical, mental, and psychological effects. 66

### **Conclusion**

Use of marijuana products by anyone under the age of \_\_ may be illegal under state law. Use of marijuana products by any one of any age is illegal under federal law.

## **23. Addiction**

One study estimated that approximately 3 in 10 people who use marijuana have Cannabis Use Disorder (CUD). Another study estimated that people who use marijuana have about a 10% likelihood of becoming addicted. The risk of developing CUD is greater in people who start

using marijuana during youth or adolescence and who use marijuana more frequently. The following are signs of CUD:

- Using more marijuana than intended.
- Trying but failing to quit using marijuana.
- Spending a lot of time using marijuana.
- Craving marijuana.
- Using marijuana even though it causes problems at home, school, or work.
- Continuing to use marijuana despite social or relationship problems.
- Giving up important activities with friends and family in favor of using marijuana.
- Using marijuana in high-risk situations, such as while driving a car.
- Continuing to use marijuana despite physical or psychological problems.
- Needing to use more marijuana to get the same high.
- Experiencing withdrawal symptoms when stopping marijuana use. 67

The state of Colorado warns that use of marijuana concentrate may lead to cannabis use disorder/dependence, including physical and psychological dependence. 68

#### Conclusion

Use of marijuana products may cause the users to develop cannabis use disorder/dependence (addiction), including physical and psychological dependence.

## **24. Pain Management**

Even though pain management is one of the most common reasons people report for using medical marijuana in the United States, there is limited evidence that marijuana works to treat most types of acute or chronic pain. Further, marijuana legalization is not associated with decreases in opioid overdose deaths and that prior research findings that it did reduce deaths could be coincidental. Importantly, using marijuana either alone or in combination with opioids has been shown to increase risk for opioid misuse. There is no evidence that marijuana works to treat opioid use disorder. Safe and effective FDA-approved medications are available to treat opioid use disorder. 69

The potential benefits of cannabis-based medicine (herbal cannabis, plant-derived or synthetic THC, THC/CBD oromucosal spray) in chronic neuropathic pain might be outweighed by their potential harms. 70.

#### Conclusion

Use of marijuana products may cause the users to develop cannabis use disorder/dependence, including physical and psychological dependence. Such products are not good pain relievers.

## **25. Risks of Poisoning**

Edibles such as food and drink products infused with marijuana, have some different risks than smoked marijuana, including a greater risk of poisoning. Unlike smoked marijuana, edibles can take from 30 minutes to 2 hours to take effect, so some people may eat too much, which can lead to poisoning and/or serious injury. They can cause intoxicating effects that last longer than expected, depending on the amount ingested, the last food eaten, and medications or alcohol used at the same time. They can be unpredictable. The amount of tetrahydrocannabinol (THC), or the concentration or strength, is very difficult to measure and is often unknown in edible products. Many people who use edibles can be caught off-guard by their strength and long-lasting effects.

71

### **Conclusion**

Use of marijuana products may result in poisoning and unpredictable toxic effects.

## **26. Risks of Secondhand Marijuana Smoke**

The known risks of secondhand exposure to tobacco smoke - including risks to the heart and lungs - raise questions about whether secondhand exposure to marijuana smoke causes similar health risks. Secondhand marijuana smoke contains many of the same toxic and cancer-causing chemicals found in tobacco smoke and contains some of those chemicals in higher amounts. 72

The state of California warns that marijuana smoke may be cancerous. 73

### **Conclusion**

Secondhand exposure to marijuana smoke has risks including risks to the heart and lungs.

## **27. Risks of Making Glaucoma Worse**

Recent evidence shows that cannabis in either tetrahydrocannabinol (THC) or cannabidiol (CBD) are both harmful to the eye and have a deleterious effect on glaucoma. CBD has been shown to increase intra-ocular pressure (IOP) the fundamental problem with most forms of glaucoma. THC lowers IOP but the effect is transient and therapeutically worthless. Chronic cannabis use causes damage and loss of retina ganglion cells as does the disease glaucoma. Moreover, ganglion cells are central nervous system tissue, like the cells of the brain, and may serve as a surrogate marker for brain cell loss. This might account for neurological problems associated with heavy cannabis use such as memory loss, lethargy, and poor motivation, permanent IQ loss in youthful users, aggression, psychoses, etc. Half a century of research has found no benefit to any cannabis products in ophthalmology. Use of sham “medical” marijuana, CBD, or any form of cannabis is not recommended for glaucoma or any other eye condition by the American Academy of Ophthalmology or the Glaucoma Society. No physician should ever recommend cannabis use for any of the many forms of glaucoma. 74

Conclusion

Use of marijuana products may make glaucoma worse and may cause eye damage.

## **28. Risks of Autism**

Marijuana use makes autism scores worse. Autism Spectrum Disease (ASD) “is the commonest form of cannabis-associated clinical teratology.”<sup>75</sup> A tetralogy is a collection of four things having something in common, such as a deformity with four features,

This is likely epidemiologically highly significant for the US, where autistic spectrum disorders have been shown to be growing exponentially. Cannabis use across the US was shown to be independently associated with autism rates across both time and space, to be dose-related, and, based on conservative projections, has been predicted to be at least 60% higher in cannabis-legal states than in states where cannabis was illegal by 2030.<sup>76</sup>

Conclusion

Use of marijuana products can make autism scores worse in the user.

## **29. Risks of Opioid Dependence**

A PubMed review of 2,237 titles resulted in 14 studies that met inclusion criteria to review and found cannabis use ranging 6.2 – 38% in chronic opioid users compared to 5.8% in general population. Cannabis use in chronic opioid patients showed statistically significant associations with present and future aberrant opioid-related behaviors.<sup>77</sup>

Many studies show that marijuana use increases the likelihood of opioid use disorder and opioid misuse<sup>78</sup> and it is not a good pain reliever.<sup>79</sup> It might be of some benefit for chronic pain patients who do use the drug to know that marijuana is an intoxicant and like any intoxicant, including beverage alcohol, pain sensations may be dulled while the intoxicated person is under the influence of the intoxicant. And like any other intoxicant, the cause of the pain is not affected by the use of the intoxicant and the pain will return when the effects of the intoxicant wear off.

Conclusion

Marijuana products are intoxicants and have been shown to increase the likelihood of opioid use disorder and opioid misuse and they are not good pain relievers.

## **30. Risks of Allergic Reaction**

Allergic disease associated with marijuana exposure and use has been reported with increased frequency, including anaphylaxis.<sup>80</sup>

Conclusion

Use of marijuana products may cause a life-threatening allergic reaction.

### **31. Risks of sleep disturbance**

A large study has shown that marijuana use can cause problems with sleep such as progressive sleep disturbances, and other negative effects to sleep architecture and quality. 81

Conclusion

Use of marijuana products cause problems with sleep such as progressive sleep disturbances, and other negative effects to sleep architecture and quality

### **32. Risk of Use of CBD**

The FDA warns that prescription CBD in the form of Epidiolex may cause hepatocellular injury (liver), somnolence and sedation, suicidal behavior and ideation. 82. Epidiolex is a very pure form of CBD and is derived from hemp and does not contain THC as do some other CBD products. 83

In addition, CBD products that are not approved by the FDA may be medical fraud, mislabeled or contaminated. 84

Conclusion

Use of CBD may cause hepatocellular injury (liver), somnolence and sedation, suicidal behavior and ideation and exposure to contamination.

### **33. Risk of Use with Epilepsy**

Cannabinoids, primarily CBD, have been studied for the treatment of seizures associated with forms of epilepsy that are difficult to control with other medicines. Epidiolex (oral CBD) has been approved by the FDA for the treatment of seizures associated with two epileptic encephalopathies: Lennox-Gastaut syndrome and Dravet syndrome. Epileptic encephalopathies are a group of seizure disorders that start in childhood and involve frequent seizures along with severe impairments in cognitive development. However, not enough research has been done on cannabinoids for other, more common forms of epilepsy to allow conclusions to be reached about whether they're helpful for these conditions. 85

Conclusion

Use of cannabis may cause people with epilepsy to not get proper treatment.

### **34. Risk of Use and Stroke.**

There is growing evidence links cannabis use to cerebrovascular disease, including aneurysmal subarachnoid hemorrhage (aSAH) and acute ischemic stroke. Aneurysmal subarachnoid hemorrhage (aSAH) is a sudden life-threatening bleeding occurring in the subarachnoid space. In a population-based study, the aSAH incidence was twice as high in cannabis users as in nonusers in a younger age group. 86

Conclusion

Use of cannabis may cause strokes.

### **35. Risk of Injury to Older Adults**

Cannabis use is associated with an increased risk of injury among older adults. 87

Conclusion

Use of cannabis may increase the risk of injury to older adults.

### **36. Risk of using marijuana as medicine**

Over the past several years, FDA has issued several warning letters to firms that market unapproved new drugs that allegedly contain cannabidiol (CBD). As part of these actions, FDA has tested the chemical content of cannabinoid compounds in some of the products, and many were found to not contain the levels of CBD they claimed to contain. Many contained THC. It is important to note that these products are not approved by FDA for the diagnosis, cure, mitigation, treatment, or prevention of any disease. In addition, the FDA has consistently warned against using any cannabinoid product as a medicine unless it is approved by the FDA. Consumers should beware purchasing and using any such products. 88

Conclusion

Use of marijuana/cannabis as a medicine may not be safe or effective unless approved by the FDA.

### **End Note**

We hope this document will guide state officials and legislators on how to protect the public until the marijuana legalization laws are reversed.

Attached are some examples of warnings that have been published.

## About the author

David G. Evans, Esq., is Senior Counsel for the Cannabis Industry Victims Educating Litigators (CIVEL) who educate lawyers on how to make the marijuana industry accountable to their many victims. Mr. Evans is a plaintiff's litigator in personal injury and employment law cases. He is the author of the books Employee Medical Leave, Benefits and Disabilities Law and Drug Testing Law, Technology and Practice published by Thomson Reuters. Attorneys who desire more information can contact Mr. Evans at [seniorcounsel@civel.org](mailto:seniorcounsel@civel.org). The CIVEL website is: [www.civel.org](http://www.civel.org). It has additional informative materials for victims and attorneys.

He is the author of the following articles published by Thomson Reuters and available on Westlaw:

Marijuana and Product Liability, Cannabis Law 300:100

“Medical” Marijuana and Medical Malpractice Liability, Cannabis Law 500:100 Client and Case Vetting of Medical Malpractice Cases Involving Marijuana, Cannabis Law 500:400

Here are some websites to learn more about marijuana. They all have research and good quality information.

Americans Against Legalizing Marijuana  
[www.aalm.info](http://www.aalm.info)

Driving Under the Influence of Drugs (DUID) Victims Voices  
<http://www.duidvictimvoices.org>

Drug Free America Foundation  
<https://www.dfaf.org>

Every Brain Matters  
<https://everybrainmatters.org>

Gordon Drug Abuse Prevention  
[Gordondrugabuseprevention.com](http://Gordondrugabuseprevention.com)

International Academy on the Science and Impact of Cannabis  
<https://iasic1.org>

Johnny's Ambassadors  
<https://johnnysambassadors.org/research/>

Marijuana Victims Alliance  
<https://www.mvaa.info>

Moms Strong  
<https://momsstrong.org>

Parents Opposed to Pot  
<https://poppot.org>

Smart Approaches to Marijuana.  
<https://learnaboutsam.org>

The Marijuana Report - up to date research  
<https://themarijuanareport.org>

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We wish to acknowledge that some of this information was obtained from the on-line library of the International Academy on the Science and Impact of Cannabis (IASIC). IASIC is an organization of international experts on cannabis who are guided by medicine and science to provide accurate and honest information that guides decision-making. <https://iasic1.org/library/>

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Scott Chipman, Vice President, Americans Against Legalizing Marijuana [www.aalm.info](http://www.aalm.info)

Additional recognition

Mark S. Gold, M.D. Distinguished Life Fellow, the American Psychiatric Association, Distinguished Fellow American College of Clinical Pharmacology, Distinguished Fellow, American Society of Addiction Medicine has conducted studies on marijuana that are cited herein.

We also wish to refer the readers to an excellent book Cannabis in Medicine an Evidence-Based Approach, Dr. Kenneth Finn, Editor, published by Springer in 2020.

<https://link.springer.com/book/10.1007/978-3-030-45968-0>

This is a comprehensive compilation of multiple facets of cannabis from a medical perspective. It includes several non-medical sections which indirectly impact medicine from a public health and safety perspective. It provides an evidence-based approach to cannabis and medicine. The book includes chapters on:

The Properties and Use of Cannabis Sativa Herb and Extracts  
Cannabinoid and Marijuana Neurobiology  
The Pharmacodynamics, Pharmacokinetics, and Potential Drug Interactions of Cannabinoids  
Cannabis and Neuropsychiatric Effects  
Cannabis and the Impact on the Pediatric and Adolescent Population  
Acute Emergency Department Presentations Related to Cannabis  
Evidence of Cannabinoids in Pain  
Cannabis in Pulmonary Medicine  
Clinical Cardiovascular Effects of Cannabis Use  
Cannabinoids in Neurologic Conditions  
Ocular Conditions and the Endocannabinoid System  
Cannabis in Oncology and Symptom Management

Cannabis in Palliative Medicine

Charting the Pathways Taken by Older Adults Who Use Cannabis: Where Are the Baby Boomers Going Now?

Cannabis in Dermatology

Fetal and Neonatal Marijuana Exposure

Cannabinoids in Gastrointestinal Disorders

Looking at Marijuana Through the Lens of Public Health

Cannabis-Impaired Driving: Evidence and the Role of Toxicology Testing

The Legal Aspects of Marijuana as Medicine

Footnotes

1. Marijuana that is distributed under state laws is derived from the cannabis plant and is thus a “botanical Cannabinoid.” 21 U.S.C. § 802 (16). The federal Food and Drug Administration (FDA) has only approved one botanical Cannabinoid, a CBD, as a medicine. All other botanical marijuana/Cannabinoids (THC or CBD) dispensed under state law as medicine or for “recreational use” or as a food or food supplement are illegal under the Food and Drug Administration (FDA) laws. Source: FDA Advisory, What You Need to Know (And What We’re Working to Find Out) About Products Containing Cannabis or Cannabis-derived Compounds, Including CBD, November 25, 2019, available at [www.fda.gov](http://www.fda.gov).

Gonzales v. Raich, 545 U.S. 1, 15, 22 (2005); Nat’l Org. for Reform of Marijuana Laws (NORML) v. Bell, 488 F. Supp. 123, 136 (D.D.C.1980); 21 U.S.C. § 812.21; 21 U.S.C. 331 and 355 (b)(1)(drug must be safe and effective in use). Elansari v. United States, 2016 WL 4415012 (MD PA 2016); US v. Pickford, 100 F.Supp.3d 981, 1007–1009 (D CA 2015)

2. It is our position that all forms of THC are dangerous. Types of THC include Delta 9 (the most common) and Delta 8-THC, Delta 9-THC, Delta 10-THC and THC-O, also known as THC-O-Acetate.

Delta 8-THC

<https://cen.acs.org/biological-chemistry/natural-products/Delta-8-THC-craze-concerns/99/i31>

Delta 10 -THC

<https://extractionmagazine.com/2020/03/21/the-bizarre-crystallization-of-%CE%B410-thc/>

THC-O, also known as THC-O-Acetate

<https://www.hempgrower.com/article/thc-o-acetate-q-and-a-dr-ethan-russo-credo-science/>

3. Cesamet - has the potential to affect the central nervous system which might manifest itself in dizziness, drowsiness, euphoria “high”, ataxia, anxiety, disorientation, depression, hallucinations and psychosis. [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2006/018677s0111bl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2006/018677s0111bl.pdf)

Marinol - [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2006/018651s025s0261bl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2006/018651s025s0261bl.pdf)

Epidiolex - [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2018/210365lbl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/210365lbl.pdf)

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<https://www.cdc.gov/marijuana/health-effects/driving.html>

<https://www.cdc.gov/marijuana/health-effects/heart-health.html>

<https://www.cdc.gov/marijuana/health-effects/lung-health.html>

<https://www.cdc.gov/marijuana/health-effects/mental-health.html>

<https://www.cdc.gov/marijuana/health-effects/chronic-pain.html>

<https://www.cdc.gov/marijuana/health-effects/poisoning.html>

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<https://www.natlawreview.com/article/fda-and-cdc-issue-warnings-regarding-health-risks-using-delta-8-thc-products>

<https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>

#### Why Marijuana Legalization is a Very Bad Idea

<https://acdemocracy.org/why-marijuana-legalization-is-a-very-bad-idea>

Predictable and Unpredictable Effects of Marijuana. Published March 4, 2021 by Moms Strong <https://momsstrong.org/2021/03/04/marijuana-predictable-and-unpredictable-effects>

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Delta-8 tetrahydrocannabinol, also known as delta-8 THC, is a psychoactive substance found in the *Cannabis sativa* plant, of which marijuana and hemp are two varieties. Delta-8 THC is one of over 100 cannabinoids produced naturally by the cannabis plant but is not found in significant amounts in the cannabis plant. As a result, concentrated amounts of delta-8 THC are typically manufactured from hemp-derived cannabidiol (CBD). It is important for consumers to be aware that delta-8 THC products have not been evaluated or approved by the FDA for safe use in any context. They may be marketed in ways that put the public health at risk and should especially be kept out of reach of children and pets. <https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>

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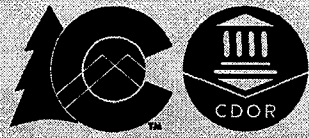
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**COLORADO**  
Department of Revenue  
Marijuana Enforcement Division

# USE OF REGULATED MARIJUANA CONCENTRATE

Medical and Retail Marijuana Stores are required to provide this resource to individuals purchasing Regulated Marijuana Concentrate.

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## EXAMPLES OF A SERVING SIZE FOR EACH TYPE OF CONCENTRATE

Regulated Marijuana Stores offer various categories of marijuana concentrates. Stores may refer to marijuana concentrates using different names, including but not limited to terms like shatter, wax, butter, sugar, hash, resin, and rosin.

### Start Low. Go Slow.

**Vaping:** Vaporizers heat marijuana concentrate to release THC for inhalation. The serving size should not exceed **1 inhalation** lasting **2 seconds** per serving.

**Dabbing:** When consuming regulated marijuana concentrate by dabbing the recommended serving size is a sphere with the diameter no larger than the dot below:

Concentrate  
Serving Size:





## RISKS AND PRECAUTIONS

### WARNING:

Use of Marijuana Concentrate may lead to: <sup>1</sup>

1. Psychotic symptoms and/or Psychotic disorder (delusions, hallucinations, or difficulty distinguishing reality)<sup>2</sup>;
2. Mental Health Symptoms/Problems<sup>3</sup>;
3. Cannabis Hyperemesis Syndrome (CHS) (uncontrolled and repetitive vomiting);
4. Cannabis use disorder / dependence, including physical and psychological dependence.

**Consuming concentrate via inhalation  
will cause immediate effects.**

**Marijuana concentrates ARE NOT recommended for inexperienced marijuana users.** THC concentration (% THC), amount of concentrate consumed, and frequency of use can result in both short and long-term effects. There is moderate evidence that individuals who use marijuana with THC concentration greater than 10% are more likely than non-users to be diagnosed with a psychotic disorder, such as schizophrenia.

**Marijuana concentrate is not approved by the FDA** and claims of medical benefits are not supported by the FDA.

**Marijuana concentrates ARE NOT recommended for anyone under age 25, except if recommended by a doctor.** People 25 and under may be at greater risk of potential harm because the brain is not fully developed.

**Regulated Marijuana Stores cannot provide medical advice.** Any questions related to the health or safety of marijuana concentrates should be discussed with a patient's recommending physician or an adult consumer's primary care physician.

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<sup>1</sup> These risks are based on CDPHE evidence statements where there is either moderate or substantial evidence. Where moderate means strong scientific findings that support the outcome, but these findings have some limitations and substantial means robust scientific findings that support the outcome with no credible opposing scientific evidence. <https://marijuanahealthinfo.colorado.gov/glossary>

<sup>2</sup> When associated with other risk factors, including psychiatric history.

<sup>3</sup> When associated with other risk factors, including psychiatric history.

## OTHER STATUTORY & REGULATORY LABELING REQUIREMENTS

The following warning statements must be included on every Container of Regulated Marijuana:

- *"Keep away from Children."*
- *"This product was produced without regulatory oversight for health, safety, or efficacy."*
- *"There may be long term physical or mental health risks from use of marijuana including additional risks for women who are or may become pregnant or are breastfeeding. Use of marijuana may impair your ability to drive a car or operate machinery."*

Universal Symbol -  
Caution Symbol for  
Regulated Marijuana  
THC

All Regulated Marijuana must be sold in a Container that displays the Universal Symbol to caution that the product contains THC.



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## PENALTIES

The sale, transfer, or dispensing of marijuana in violation of Colorado law is a felony punishable by a prison sentence up to 32 years and/or fines up to \$1,000,000.00.

A felony conviction can have serious consequences including the inability to vote while incarcerated, prohibition on obtaining a passport which is required to travel internationally, disqualification for employment, the inability to obtain housing and other serious consequences.

Inhaling more than 10 mg of THC within 10 minutes can lead to a blood THC level above 5 ng which can be used to support a conviction for driving under the influence.

## ADDITIONAL RESOURCES:

**Colorado Poison Center helpline:**

1-800-222-1222

**Safe2Tell:**

877-542-SAFE (7233)

**National Suicide Prevention Lifeline:**

800-273-8255

**CO Crisis Services:**

1-844-493-8255

**Rocky Mountain Poison & Drug Center:**

1-800-222-1222 MED:

{central telephone number for consumers to report adverse use and product effects}

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## Colorado Department of Public Health Resources:

**Youth and Marijuana:**

<https://cannabis.colorado.gov/health-effects/effects-on-youth>

**Monitoring Health Concerns Related to Marijuana in Colorado:**

2020 and THC Concentrates in Colorado Report (2020):

<https://marijuanahealthinfo.colorado.gov/reports-and-summaries>

**Monitoring Health Concerns Related to Marijuana in Colorado:**

Literature Review:

<https://marijuanahealthinfo.colorado.gov/Literature-review>

**Health Care Provider Resources:**

<https://cdphe.colorado.gov/marijuana-health-care-provider-resources>

**Responsibility Grows Here:**

<https://responsibilitygrowshere.com/>

**Forward Together Campaign from CDPHE/CDHS:**

<https://forwardtogetherco.com>



## Pregnant and Breastfeeding Women and Cannabis

Consuming cannabis (marijuana, weed, pot, etc.) can affect the health of your baby and is not recommended for women who are pregnant or breastfeeding, or who plan to become pregnant soon. Here are some important facts you should know.

### Cannabis Can Harm Your Baby

- Research shows that if you use cannabis while you are pregnant or breastfeeding:
  - Your baby may be born with a lower birth weight.<sup>1,2</sup>
  - A low birth weight baby is more likely to have health problems, especially in the first year of life.<sup>3</sup>
  - The growth and development of your baby's brain can be harmed.<sup>4,5</sup>

### How Cannabis Affects Your Baby

- No matter how you use cannabis (smoking, vaping, eating, or drinking), the active ingredient in cannabis, THC (tetrahydrocannabinol), will reach your baby in three ways:
  - Through your bloodstream and into the placenta (the organ that feeds your baby during pregnancy).<sup>6,7</sup>
  - Through your breast milk.<sup>8,9</sup>

“Pumping and Dumping” doesn't work. THC is stored in fat cells and is slowly released over several weeks, so it stays in your breast milk.<sup>10</sup>
  - Through secondhand smoke that enters your baby's lungs.<sup>11,12</sup>

### No Amount of Cannabis is Safe

- Leading doctors' organizations such as the American College of Obstetricians<sup>13</sup> and Gynecologists and the American Academy of Pediatrics<sup>14</sup> recommend that:

- If you are pregnant or thinking about becoming pregnant soon, discontinue use of cannabis.
- If you already use cannabis for medicinal purposes, discontinue use in favor of an alternative treatment which research shows is safer during pregnancy.
- Don't breathe cannabis smoke if you are pregnant. It is bad both for you and your baby because, like tobacco smoke, it lowers your oxygen levels, introduces toxins into your system and harms your lungs.<sup>15,16</sup>
- Talk to your doctor about any questions you have about cannabis.<sup>17</sup>



 **LET'S TALK CANNABIS**

<http://bit.do/letstalkcannabis>  
[letstalkcannabis@cdph.ca.gov](mailto:letstalkcannabis@cdph.ca.gov)

Under California law, adults 21 or older can use, carry, and grow cannabis (marijuana, weed, pot, etc.). Buying cannabis (without a valid physician's recommendation or a county-issued medical marijuana identification card) will become legal under California law for adults 21 or older on January 1, 2018. Use of medicinal cannabis is legal under California law if you have a valid physician's recommendation or a valid county-issued medical marijuana identification card. To buy medicinal cannabis, you must be 18 or older and have either a valid physician's recommendation, a valid county-issued medical marijuana identification card, or be a Primary Caregiver as defined in Health and Safety Code Section 11362.7(d) or 11362.5(e), with a valid physician's recommendation for the patient. In addition, consistent with the Compassionate Use Act, you may possess or cultivate any amount that is reasonably related to your current medical needs. The new California law, known as the Medicinal and Adult-Use Cannabis Regulation and Safety Act<sup>18</sup>, includes information about where you can use cannabis, how much you can possess, and the penalties for illegal use. For more information, visit: [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=201701805894](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201701805894).



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# Chemicals Listed Effective January 3, 2020 As Known to The State of California To Cause Reproductive Toxicity (Developmental Endpoint): Cannabis (Marijuana) Smoke and $\Delta^9$ - Tetrahydrocannabinol ( $\Delta^9$ -THC)

Jan 23, 2020

Effective January 3, 2020, the Office of Environmental Health Hazard Assessment is adding cannabis (marijuana) smoke and  $\Delta^9$ -tetrahydrocannabinol ( $\Delta^9$ -THC) to the list of chemicals known to the state to cause reproductive toxicity (developmental endpoint) for purposes of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)<sup>11</sup>. At a public meeting on December 11, 2019, the Developmental and Reproductive Toxicant Identification Committee (DARTIC) in its official capacity as the "state's qualified experts" determined that cannabis (marijuana) smoke and  $\Delta^9$ -tetrahydrocannabinol ( $\Delta^9$ -THC) were shown to cause reproductive toxicity based on the developmental endpoint. Regulations for the listing of chemicals by the DARTIC are set out in Title 27, California Code of Regulations, section 25305(b)(1).

A complete, updated Proposition 65 chemical list is available on the OEHHA website at <https://oehha.ca.gov/proposition-65/proposition-65-list>.

A video of the Developmental and Reproductive Toxicant Identification Committee meeting.

## Link to Public Comments

- ▶ [Comment Submissions - Developmental and Reproductive Toxicant Identification Committee Meeting Scheduled for December 11, 2019, Notice of Availability of Hazard Identification Materials for Cannabis \(Marijuana\) Smoke and  \$\Delta^9\$ -Tetrahydrocannabinol \(THC\)](#)

## Downloads

- [Chemicals Listed Effective January 3, 2020 As Known to The State of California To Cause Reproductive Toxicity Jan 3, 2020](#)
- [Tentative Agenda Meeting of DARTIC CalEPA Office of Environmental Health Hazard Assessment Nov 27, 2019](#)
- [DARTIC Meeting Transcript Dec 11, 2019](#)
- [DARTIC Meeting Synopsis Dec 11, 2019](#)
- [Announcement of the DARTIC Meeting Scheduled for December 11, 2019, Notice of Availability of HIMs for Cannabis Oct 4, 2019](#)
- [Evidence on the Developmental Toxicity of Cannabis \(Marijuana\) Smoke and  \$\Delta^9\$ -THC Oct 4, 2019](#)
- [Cannabis \(marijuana\) smoke and  \$\Delta^9\$ -THC -- Staff Presentation Dec 11, 2019](#)
- [DARTIC Staff Update - 2019 Dec 11, 2019](#)
- [Section 27000 Presentation - 2019 Dec 11, 2019](#)



## Chemical Reference

- ▶ Cannabis (Marijuana) Smoke
- ▶ delta-9-Tetrahydrocannabinol ( $\Delta$ 9-THC)

## Footnotes and References

[1] The Safe Drinking Water and Toxic Enforcement Act of 1986, codified at Health and Safety Code section 25249.5 *et seq.*, commonly referred to as "Proposition 65".

[2] Title 27, Cal. Code of Regs., section 25302 *et seq.*

### Cal EPA

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- ▶ Cal Recycle
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- ▶ Department of Toxic Substances Control
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- 1. MODEL MARIJUANA/CANNABIS RIGHT TO KNOW BILL STATEMENT**
- 2. MODEL MARIJUANA/CANNABIS RIGHT TO KNOW BILL**
- 3. MODEL MARIJUANA/CANNABIS RESEARCH BILL STATEMENT**
- 4. MODEL MARIJUANA/CANNABIS RESEARCH BILL**

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**May 5, 2022**

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### MODEL MARIJUANA/CANNABIS RIGHT TO KNOW BILL STATEMENT

This bill is concerned with all cannabis plant derived products as marijuana, cannabidiol (CBD) and Delta 8-THC, Delta 9-THC, Delta 10-THC and THC-O-Acetate and tetrahydrocannabivarin (THCV). Hereinafter these will be referred to as “marijuana/cannabis.”

The states that have legalized marijuana/cannabis products for medicine or recreation have done very little to provide the warnings and the other consumer protections that normally attach to dangerous products that are consumed for recreation or as a food supplement or used as medicines. The harms of marijuana/cannabis justify warnings to the consumers of these products. They have a right to know.

This bill requires warnings on all marijuana/cannabis product labels and marijuana/cannabis advertising and more detailed package inserts on all marijuana/cannabis products. Warnings should be developed carefully to determine who is the audience and that it should be audience appropriate. All reasonable risks and hazards need to be considered. This can include reports of injuries, prior claims, consumer complaints, research findings and expert analysis.

Vagueness may be overcome when read as whole the warning communicates meaning as to risks that cannot be mistaken. Its adequacy may be based on warning of most likely risks.

#### Vaping Devices

We should require labels on vaping devices. People throw out the packaging and hold on to the device for long periods of time. Also, a warning on the device would let parents and other adults know if they found one in a teen’s possessions.

#### The Science Supporting Warnings on Marijuana/Cannabis Products

Research demonstrates that mandating warning labels on marijuana/cannabis products may increase exposure to messages communicating the health risks of marijuana/cannabis, especially among frequent consumers and those who access the “legal” market. [FN1]

Awareness of specific warning messages was higher in jurisdictions where the associated warning was mandated on packages, suggesting that warning labels may improve knowledge of marijuana/cannabis-related health risks. [FN2]

The bill provides specific warnings. The states should also consider creating additional warnings on the following subjects:

1. Damage to Mental Ability
2. Cardiac and Lung Damage
3. Risks of Using Marijuana/cannabis as Medicine
4. Risks of Use of cannabidiol (CBD)
5. Risks of High Potency Marijuana.
6. Risks of Violence
7. Post-Traumatic Stress Disorder (PTSD)
8. Harmful Drug and Medicine Interactions.
9. Risks of Secondhand Marijuana Smoke
10. Risks of Making Glaucoma Worse
11. Risks of Autism
12. Risks of Opioid Dependence
13. Risks of Allergic Reaction
14. Risks of sleep disturbance
15. Risks of Use with Epilepsy
16. Risks of Use and Stroke
17. Risks of Injury to Older Adults

See the attached paper entitled “Consumer Warnings on the Risks of Marijuana Products Are Required” that provides the science behind these warnings. The CDC and the FDA have also issued many warnings about marijuana/cannabis use. [3]

The states in addition to the label warnings should create package inserts that provide details on the marijuana/cannabis products. Good models are the FDA package inserts. The labeling of a medicine should at a minimum include:

1. Indications and Usage
2. Dosage and Administration
3. Dosage Forms and Strengths
4. Contraindications
5. Warnings and Precautions
6. Adverse Reactions
7. Use in Specific Populations
8. Drug Abuse and Dependence
9. Description
10. Clinical pharmacology
11. Non clinical Toxicology
12. Clinical Studies
13. How supplied/storage and Handling
14. Overdosage
15. Patient Counseling Information [FN4]

## Footnotes

1. Source: Original quantitative research - Noticing of cannabis health warning labels in Canada and the US, Samantha Goodman, PhD; David Hammond, PhD,

<https://www.canada.ca/en/public-health/services/reports-publications/health-promotion-chronic-disease-prevention-canada-research-policy-practice/vol-41-no-7-8-2021/cannabis-health-warning-canada-us.html>

2. Do Mandatory Health Warning Labels on Consumer Products Increase Recall of the Health Risks of Cannabis? Samantha Goodman, Cesar Leos-Toro & David Hammond, Substance Use and Misuse, Published online: 06 Jan 2022;

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<https://www.cdc.gov/marijuana/health-effects/poisoning.html>

<https://www.cdc.gov/marijuana/health-effects/risk-of-other-drugs.html>

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<https://www.cdc.gov/marijuana/pdf/marijuana-pregnancy-508.pdf>

<https://www.fda.gov/consumers/consumer-updates/what-you-need-know-and-what-were-working-find-out-about-products-containing-cannabis-or-cannabis>

<https://www.fda.gov/consumers/consumer-updates/what-you-should-know-about-using-cannabis-including-cbd-when-pregnant-or-breastfeeding>

<https://www.fda.gov/consumers/consumer-updates/some-medicines-and-driving-don't-mix>

<https://www.nccih.nih.gov/health/cannabis-marijuana-and-cannabinoids-what-you-need-to-know>

<https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>

4. 21 U.S.C.A. § 321(m) and (n)(labeling cannot be misleading and must reveal facts with respect to consequences which may result from the use of the drug)

**End note**

**The best way for people to avoid these harms is to avoid marijuana and other cannabis products. This statement does not endorse marijuana or cannabis use in any form including its legalization and commercialization.**

## **MODEL MARIJUANA/CANNABIS RIGHT TO KNOW BILL**

(Statute title and citation)

*The statute shall be placed in the laws regarding cannabis or health.*

### **Packaging and Labeling; Form and Contents; Ingredient Descriptions; Schedule I Controlled Substance Statement and Warnings on All Mediums of Communication**

(a) Prior to delivery or sale at a retailer, marijuana/cannabis products shall be labeled and placed in a tamper-evident, child-resistant package and shall include a unique identifier for the purposes of identifying and tracking marijuana/cannabis products. If the marijuana/cannabis product contains multiple servings, the package shall also be resealable. All vaping devices shall have warnings on the device.

(b) Packages and labels shall not be made to be attractive to children.

(c) All marijuana/cannabis product labels and package inserts, and advertising on all mediums of communication, shall include the following information prominently displayed in a clear and legible fashion in accordance with the requirements, including font size, prescribed by the department:

(1) The following statements, in bold print:

(A) For marijuana/cannabis:

**WARNING: MARIJUANA/CANNABIS USE MAY CAUSE PHYSICAL AND MENTAL HEALTH PROBLEMS FOR USERS.**

**WARNING: THIS PACKAGE CONTAINS MARIJUANA/CANNABIS, A SCHEDULE I CONTROLLED SUBSTANCE. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.**

**WARNING: THE SMOKE FROM MARIJUANA/CANNABIS IS HARMFUL AND MAY CAUSE CANCER.**

**WARNING: DO NOT USE IF PREGNANT OR BREASTFEEDING. SUBSTANCES IN MARIJUANA/CANNABIS ARE TRANSFERRED FROM THE MOTHER TO CHILD AND CAN HARM YOUR BABY.**

**WARNING: DO NOT DRIVE OR OPERATE HEAVY EQUIPMENT AFTER USING MARIJUANA/CANNABIS. MARIJUANA/CANNABIS CAN CAUSE DROWSINESS AND IMPAIR YOUR ABILITY TO CONCENTRATE AND MAKE QUICK DECISIONS.**

**WARNING: FREQUENT AND PROLONGED USE OF MARIJUANA/CANNABIS CAN CONTRIBUTE TO MENTAL HEALTH PROBLEMS OVER TIME. DAILY OR NEAR-DAILY USE INCREASES THE RISK OF DEPENDENCE AND MAY BRING ON OR WORSEN DISORDERS RELATED TO ANXIETY AND DEPRESSION.**



WARNING: ADOLESCENTS AND YOUNG ADULTS ARE AT GREATER RISK OF HARMS FROM MARIJUANA/CANNABIS. DAILY OR NEAR-DAILY USE OVER A PROLONGED PERIOD OF TIME CAN HARM BRAIN DEVELOPMENT AND FUNCTION.

WARNING: THE HIGHER THE THC CONTENT OF A PRODUCT, THE MORE LIKELY YOU ARE TO EXPERIENCE ADVERSE EFFECTS AND GREATER LEVELS OF IMPAIRMENT. THC CAN CAUSE ANXIETY AND IMPAIR MEMORY AND CONCENTRATION.

WARNING: IT CAN TAKE UP TO 4 HOURS TO FEEL THE FULL EFFECTS FROM EATING OR DRINKING MARIJUANA/CANNABIS. CONSUMING MORE WITHIN THIS TIME PERIOD CAN RESULT IN ADVERSE EFFECTS THAT MAY REQUIRE MEDICAL ATTENTION.

WARNING: THE EFFECTS FROM EATING OR DRINKING MARIJUANA/CANNABIS CAN BE LONG-LASTING. THE EFFECTS CAN LAST BETWEEN 6 AND 12 HOURS FOLLOWING USE.

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE PSYCHOTIC SYMPTOMS AND/OR PSYCHOTIC DISORDER (DELUSIONS, HALLUCINATIONS, OR DIFFICULTY DISTINGUISHING REALITY OR OTHER MENTAL HEALTH SYMPTOMS/PROBLEMS SUCH AS DEPRESSION AND SUICIDAL IDEATION

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE CANNABIS HYPEREMESIS SYNDROME (CHS) (UNCONTROLLED AND REPETITIVE VOMITING)

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE CANNABIS USE DISORDER OR DEPENDENCE, INCLUDING PHYSICAL AND PSYCHOLOGICAL DEPENDENCE.

WARNING: MARIJUANA USE IS NOT APPROVED BY THE FDA AS BEING SAFE OR EFFECTIVE AS A MEDICINE.

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE DAMAGE TO REPRODUCTIVE HEALTH IN MEN AND WOMEN

The marijuana/cannabis health warning message should also apply to marijuana/cannabis products that are marijuana/cannabis topicals.

WARNING: DO NOT SWALLOW OR APPLY INTERNALLY OR TO BROKEN, IRRITATED OR ITCHING SKIN. THERE MAY BE HEALTH EFFECTS AND RISKS ASSOCIATED WITH MARIJUANA/CANNABIS TOPICALS THAT ARE NOT FULLY KNOWN OR UNDERSTOOD.

For a “medicinal” marijuana/cannabis product sold at a retailer, the following statement should be added.

FOR MEDICAL USE ONLY

(B) For marijuana/cannabis products:

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE PHYSICAL AND MENTAL HEALTH PROBLEMS FOR USERS.

WARNING: THIS PACKAGE CONTAINS MARIJUANA/CANNABIS, A SCHEDULE I CONTROLLED SUBSTANCE. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

WARNING: THE SMOKE FROM MARIJUANA/CANNABIS IS HARMFUL AND MAY CAUSE CANCER

WARNING: DO NOT USE IF PREGNANT OR BREASTFEEDING. SUBSTANCES IN MARIJUANA/CANNABIS ARE TRANSFERRED FROM THE MOTHER TO CHILD AND CAN HARM YOUR BABY.

WARNING: DO NOT DRIVE OR OPERATE HEAVY EQUIPMENT AFTER USING MARIJUANA/CANNABIS. MARIJUANA/CANNABIS CAN CAUSE DROWSINESS AND IMPAIR YOUR ABILITY TO CONCENTRATE AND MAKE QUICK DECISIONS.

WARNING: FREQUENT AND PROLONGED USE OF MARIJUANA/CANNABIS CONTAINING THC CAN CONTRIBUTE TO MENTAL HEALTH PROBLEMS OVER TIME. DAILY OR NEAR-DAILY USE INCREASES THE RISK OF DEPENDENCE AND MAY BRING ON OR WORSEN DISORDERS RELATED TO ANXIETY AND DEPRESSION.

WARNING: ADOLESCENTS AND YOUNG ADULTS ARE AT GREATER RISK OF HARMS FROM MARIJUANA/CANNABIS. DAILY OR NEAR-DAILY USE OVER A PROLONGED PERIOD OF TIME CAN HARM BRAIN DEVELOPMENT AND FUNCTION.

WARNING: THE HIGHER THE THC CONTENT OF A PRODUCT, THE MORE LIKELY YOU ARE TO EXPERIENCE ADVERSE EFFECTS AND GREATER LEVELS OF IMPAIRMENT. THC CAN CAUSE ANXIETY AND IMPAIR MEMORY AND CONCENTRATION.

WARNING: IT CAN TAKE UP TO 4 HOURS TO FEEL THE FULL EFFECTS FROM EATING OR DRINKING MARIJUANA/CANNABIS. CONSUMING MORE WITHIN THIS TIME PERIOD CAN RESULT IN ADVERSE EFFECTS THAT MAY REQUIRE MEDICAL ATTENTION.

WARNING: THE EFFECTS FROM EATING OR DRINKING MARIJUANA/CANNABIS CAN BE LONG-LASTING. THE EFFECTS CAN LAST BETWEEN 6 AND 12 HOURS FOLLOWING USE.

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE PSYCHOTIC SYMPTOMS AND/OR PSYCHOTIC DISORDER (DELUSIONS, HALLUCINATIONS, OR DIFFICULTY DISTINGUISHING REALITY OR OTHER MENTAL HEALTH SYMPTOMS/PROBLEMS SUCH AS DEPRESSION AND SUICIDAL IDEATION

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE CANNABIS HYPEREMESIS SYNDROME (CHS) (UNCONTROLLED AND REPETITIVE VOMITING)

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE MARIJUANA/CANNABIS USE DISORDER/DEPENDENCE, INCLUDING PHYSICAL AND PSYCHOLOGICAL DEPENDENCE.

WARNING: MARIJUANA USE IS NOT APPROVED BY THE FDA AS BEING SAFE OR EFFECTIVE AS A MEDICINE.

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE DAMAGE TO REPRODUCTIVE HEALTH IN MEN AND WOMEN

The marijuana/cannabis health warning message should also apply to marijuana/cannabis products that are marijuana/cannabis topicals.

WARNING: DO NOT SWALLOW OR APPLY INTERNALLY OR TO BROKEN, IRRITATED OR ITCHING SKIN. THERE MAY BE HEALTH EFFECTS AND RISKS ASSOCIATED WITH MARIJUANA/CANNABIS TOPICALS THAT ARE NOT FULLY KNOWN OR UNDERSTOOD.

For a medicinal marijuana/cannabis product sold at a retailer, the statement shall add:

FOR MEDICAL USE ONLY

(2) The Department shall also consider creating warnings on the following subjects:

1. Damage to Mental Ability
2. Cardiac and Lung Damage
3. Risks of Using Marijuana/cannabis as Medicine
4. Risks of Use of Cannabidiol (CBD)
5. Risks of High Potency Marijuana/cannabis.
6. Risks of Violence
7. Post-Traumatic Stress Disorder (PTSD)
8. Harmful Drug and Medicine Interactions.
9. Risks of Secondhand Marijuana Smoke
10. Risks of Making Glaucoma Worse
11. Risks of Autism
12. Risks of Opioid Dependence
13. Risks of Allergic Reaction

14. Risks of sleep disturbance.
15. Risks of Use with Epilepsy
16. Risks of Use and Stroke
17. Risks of Injury to Older Adults

(3) The Department in addition to the label warnings shall create package inserts that provide details on the marijuana/cannabis products used as medicine and should at a minimum include:

1. Indications and Usage
2. Dosage and Administration
3. Dosage Forms and Strengths
4. Contraindications
5. Warnings and Precautions
6. Adverse Reactions
7. Use in Specific Populations
8. Drug Abuse and Dependence
9. Description
10. Clinical pharmacology
11. Non clinical Toxicology
12. Clinical Studies
13. How supplied/storage and Handling
14. Overdosage
15. Patient Counseling Information. 21 U.S.C.A. § 321(m) and (n)\_(labeling cannot be misleading and must reveal facts with respect to consequences which may result from the use of the drug)

(4) For packages containing only dried flower, the net weight of marijuana/cannabis in the package.

- A. Identification of the type of marijuana/cannabis product and the date of packaging.
- B. The appellation of origin, if any.
- C. List of pharmacologically active ingredients, including, but not limited to, tetrahydrocannabinol (THC), cannabidiol (CBD), and other cannabinoid content, the THC and other cannabinoid amount in milligrams per serving, servings per package, and the THC and other cannabinoid amount in milligrams for the package total.
- D. A warning if nuts or other known allergens are used.
- E. Information associated with the unique identifier issued by the department.

(d) The Department shall insure that the warning on marijuana/cannabis use by the American College of Obstetricians and Gynecologists is posted in every marijuana/cannabis store and all medical offices including hospitals. Medical and retail marijuana/cannabis stores shall post warnings in writing to be clearly seen by individuals purchasing marijuana/cannabis. That warning shall state:

**THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS  
RECOMMENDS THE FOLLOWING:**

BEFORE PREGNANCY AND IN EARLY PREGNANCY, ALL WOMEN SHOULD BE ASKED ABOUT THEIR USE OF TOBACCO, ALCOHOL, AND OTHER DRUGS, INCLUDING MARIJUANA AND OTHER MEDICATIONS USED FOR NONMEDICAL REASONS.

WOMEN REPORTING MARIJUANA USE SHOULD BE COUNSELED ABOUT CONCERNS REGARDING POTENTIAL ADVERSE HEALTH CONSEQUENCES OF CONTINUED USE DURING PREGNANCY.

WOMEN WHO ARE PREGNANT OR CONTEMPLATING PREGNANCY SHOULD BE ENCOURAGED TO DISCONTINUE MARIJUANA USE.

PREGNANT WOMEN OR WOMEN CONTEMPLATING PREGNANCY SHOULD BE ENCOURAGED TO DISCONTINUE USE OF MARIJUANA FOR MEDICINAL PURPOSES IN FAVOR OF AN ALTERNATIVE THERAPY FOR WHICH THERE ARE BETTER PREGNANCY-SPECIFIC SAFETY DATA.

THERE ARE INSUFFICIENT DATA TO EVALUATE THE EFFECTS OF MARIJUANA USE ON INFANTS DURING LACTATION AND BREASTFEEDING, AND IN THE ABSENCE OF SUCH DATA, MARIJUANA USE IS DISCOURAGED.

<https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2017/10/marijuana-use-during-pregnancy-and-lactation>

(e) Only generic food names may be used to describe the ingredients in edible marijuana/cannabis products.

(f) Marijuana/cannabis beverages may be packaged in glass containers that are clear or any color.

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## MODEL MARIJUANA/CANNABIS RESEARCH BILL STATEMENT

This bill is concerned with all plant derived or synthetic cannabinoid products that require research such as cannabidiol (CBD) and Delta 8-THC, Delta 9-THC, Delta 10-THC and THC-O-Acetate and tetrahydrocannabivarin (THCV).

Marijuana/cannabis products today can be up to 99% THC, the psychoactive chemical in marijuana/cannabis. The amount of THC in marijuana/cannabis has been increasing steadily over the past few decades. For a person who is new to marijuana/cannabis use, this may mean exposure to higher THC levels with a greater chance of a harmful reaction including mental illness and addiction. [FN1]

Limiting the availability of high potency marijuana/cannabis/marijuana may be associated with decreased addiction and mental illness. [FN2] However, this does not imply that low potency cannabis/marijuana could be safely or more safely used. Even in small low potency amounts, damage of all kinds can be done to those of all ages and their children. [FN3]

The level of THC that should be researched should be up to the highest level sold or used in the state.

The state Department of Health should compile this research in order to advise the public and the medical community of the risk of marijuana/cannabis use

### Footnotes

1. THC Crystals: The Purest THC on the Planet.  
<https://internationalhighlife.com/thc-crystals-pure-thc/>

See Colorado law: 1 CCR 212-2

The Problem with the Current High Potency THC Marijuana from the Perspective of an Addiction Psychiatrist, by Elizabeth Stuyt, MD 482/15:6 November/December 2018 Missouri Medicine, <https://pubmed.ncbi.nlm.nih.gov/30643324/>

2. <https://iasic1.org/doctors-warn-cannabis-can-cause-serious-health-hazards/>

Association of High-Potency Cannabis Use With Mental Health and Substance Use in Adolescence. Hines, et.al. 2020, JAMA Psychiatry doi:10.1001/jamapsychiatry.2020.1035.  
<https://pubmed.ncbi.nlm.nih.gov/32459328/>

The impacts of marijuana dispensary density and neighborhood ecology on marijuana abuse and dependence, Christina Maira, et, al,  
<https://www.sciencedirect.com/science/article/abs/pii/S037687161500318X>

### 3. CDC information

<https://www.cdc.gov/marijuana/index.htm>  
<https://www.cdc.gov/marijuana/health-effects/addiction.html>  
<https://www.cdc.gov/marijuana/health-effects/brain-health.html>  
<https://www.cdc.gov/marijuana/health-effects/cancer.html>  
<https://www.cdc.gov/marijuana/health-effects/driving.html>  
<https://www.cdc.gov/marijuana/health-effects/heart-health.html>  
<https://www.cdc.gov/marijuana/health-effects/lung-health.html>  
<https://www.cdc.gov/marijuana/health-effects/mental-health.html>  
<https://www.cdc.gov/marijuana/health-effects/chronic-pain.html>  
<https://www.cdc.gov/marijuana/health-effects/poisoning.html>  
<https://www.cdc.gov/marijuana/health-effects/risk-of-other-drugs.html>  
<https://www.cdc.gov/marijuana/health-effects/second-hand-smoke.html>  
<https://www.cdc.gov/marijuana/pdf/marijuana-pregnancy-508.pdf>

<https://www.fda.gov/consumers/consumer-updates/what-you-need-know-and-what-were-working-find-out-about-products-containing-cannabis-or-cannabis>

<https://www.fda.gov/consumers/consumer-updates/some-medicines-and-driving-don't-mix>

<https://www.nccih.nih.gov/health/cannabis-marijuana-and-cannabinoids-what-you-need-to-know>

<https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>

<https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>

Why Marijuana Legalization is a Very Bad Idea

<https://acdemocracy.org/why-marijuana-legalization-is-a-very-bad-idea>

The disconnect between the science on cannabis and public health campaigns. Miller CL. *Addiction*. 2017;112(10):1882-1883.

<https://onlinelibrary.wiley.com/doi/full/10.1111/add.13918>

<https://www.reuters.com/article/us-health-marijuana-kids/marijuana-related-er-visits-by-colorado-teens-on-the-rise-idUSKBN1HO38A>

Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health, November, 2016, Chapters One and Two and Appendix D pp.65-66 at:

<https://store.samhsa.gov/sites/default/files/d7/priv/surgeon-generals-report.pdf>

<https://iasic1.org/doctors-warn-cannabis-can-cause-serious-health-hazards/>

Surgeon General's Warning on Marijuana, 1982  
<https://www.cdc.gov/mmwr/preview/mmwrhtml/00001143.htm>

National Institute of Drug Abuse Monograph 44. Marijuana's Effects on the Endocrine and Reproductive Systems. M. Braude, ed. (1984)  
<https://www.semanticscholar.org/paper/Marijuana-effects-on-the-endocrine-and-reproductive-Braude/3a953e01f8cc6446e4d08db31b0ee157342c3858>.

<https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Marijuana-Use-During-Pregnancy-and-Lactation>.

### **End note**

**The best way for people to avoid these harms is to avoid marijuana and other cannabis products. This statement does not endorse marijuana or cannabis use in any form including its legalization and commercialization.**



## **MODEL MARIJUANA/CANNABIS RESEARCH BILL**

(Statute title and citation)

The statute shall be placed in the laws regarding the state Department of Health

### **High-potency THC Marijuana and Marijuana Concentrate Research**

(1)(a) The Department of Health shall conduct a systematic review of all available scientific evidence-based research regarding the possible physical and mental health effects of high-potency THC marijuana/cannabis concentrates regardless of the location of the research. The level of THC that should be researched should be at the highest level sold or used in the state.

(b) The research shall study the effect of high-potency THC marijuana/cannabis on the developing brain and the effect of marijuana/cannabis concentrates on physical and mental health. The research shall systematically curate and synthesize existing research, identify evidence gaps, and identify new research that is needed to better understand the health implications of high-potency THC marijuana/cannabis products and the specific THC potency levels and amounts at which various health concerns arise. The Department shall report by \_\_\_\_\_, 2023, to the Legislature (appropriate committees) whether they have identified any gaps in the research, and, if there are gaps, what those gaps are, what studies are needed to fill those gaps, the funding needed to complete those studies, and the timeline for completion of the necessary studies.

Nothing in this section shall preclude the Department from making recommendations regarding appropriate regulatory measures to Governor and the Legislature.

(c) The research shall be conducted independently without any predetermined outcomes or undue influence from any party.

(2)(a) The Department shall produce an initial report of its findings by \_\_\_\_\_, 2023, and shall provide that report to the scientific review council created in subsection (2)(b) of this section and the Legislature. If at any point prior to the completion of the final report the Department believes there is sufficient scientific evidence to make a recommendation regarding appropriate regulatory measures, the Department shall provide those recommendations to the scientific review council created in subsection (2)(b) of this section and the Legislature. If after submitting the initial report the Department believes additional research and reporting is necessary, the Department may, subject to available appropriations, conduct additional research and issue additional reports and recommendations to the scientific review council created in subsection (b) of this section and Legislature. If after \_\_\_\_\_, 2023, additional research is conducted and sufficient data from that research shows a prevalence of negative physical or mental health outcomes from the use of high-potency THC marijuana/cannabis products, the Department shall submit a report regarding the findings to the scientific review council created in subsection (2)(b) of this section and the Legislature. Any recommendations can include additional criminal penalties related to marijuana/cannabis concentrate use, possession, or possession of

paraphernalia or new crimes related to marijuana/cannabis concentrate use, possession, or possession of paraphernalia.

(b)(1) The Department shall establish a scientific review council to review the initial report and any subsequent reports produced pursuant to subsection (2)(a) of this section and make recommendations to the Legislature regarding appropriate evidence-based regulatory changes and the funding of additional necessary evidence-based research. The deans of the state medical schools and schools of pharmacy shall appoint members, to the scientific review council who do not have a pecuniary interest or anyone in their immediate family who does not have a pecuniary interest, who represent an unbiased group of professionals, as follows:

An epidemiologist;

A physician familiar with the administration of medical marijuana/cannabis pursuant to current state laws with experience recommending medical/cannabis marijuana to those who are age zero to seventeen;

A medical toxicologist;

A neurologist;

A pediatrician;

A psychiatrist;

An internal medicine physician or other specialist in adult medicine;

A preventive medicine specialist or public health professional;

A licensed substance use disorder specialist;

A neuropsychopharmacologist.

(2) The scientific review council shall post public notice of each committee meeting at least two weeks before the meeting, and the meetings shall be broadcast to the public. Nothing precludes the public from submitting written comments to the committee.

(3) Based on its research and findings, the Department shall produce a public education campaign for the general public regarding the effect of high-potency THC marijuana/cannabis on the developing brain and on physical and mental health. The scientific review council created in subsection (2)(b) of this section shall approve the public education campaign.

(4) The Department shall not seek, accept, or use gifts, grants, or donations to fund the provisions of this section. The provisions of this section shall be completed using only appropriations from the general assembly.

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