



CANNABIS REGULATION
FACT SHEET


THC limits for Adult-Use Cannabis Products

I. Introduction

Tetrahydrocannabinol (THC) is the primary intoxicant in cannabis products. Setting THC potency limits is a critical policy decision that states need to consider when legalizing cannabis for adult-use. While each manner of cannabis consumption presents some risk, cannabis edibles present unique challenges when it comes to product potency. Many edible products are attractive to children, despite state efforts to decrease the allure. As a result, some jurisdictions have experienced an increase in emergency room visits and calls to poison control associated with child ingestion of cannabis.¹ In addition, the delayed onset of cannabis edibles can lead to acute intoxication when consumers eat too much of the product. As a result of these risks, this fact sheet will focus primarily on the potency restrictions related to edibles in the 20 jurisdictions (19 states and the District of Columbia) that have legalized adult-use cannabis. The fact sheet examines 6 policy variables: (1) THC serving size for edible cannabis products, (2) Total THC limit for an edible cannabis product, (3) The cannabinoids included in a state's definition of THC, (4) THC homogeneity requirements for cannabis edibles, and (5) restrictions on the potency of cannabis concentrates and extracts, and (6) THC potency taxes. Section II of this fact sheet provides a research summary that discusses the prevalence of each policy variable and the variation in policy within each. Section III contains a table that covers the policy approach of each state and allows side-by-side comparison of each state.

II. Research Summary:

This section examines 6 different policies that states use to regulate product potency for edible cannabis products and cannabis concentrates. The prevalence of each variable is explained, and a range of policy approaches is provided when necessary. The



research sample set for this analysis is 17 of the 20 adult-use jurisdictions. D.C, New York, and Rhode Island are not included. D.C. is excluded because it has not developed a retail market. Although Virginia lacks a licensed market, it has established regulatory guidance and is included. New York and Rhode Island have assigned authority to address product potency but have yet to draft the relevant regulations (NY and RI). However, New York has adopted a THC potency tax, which is discussed in the relevant section.


Edible Serving Size Restrictions: All **17 states** with potency restrictions limit the amount of THC in a serving of an edible cannabis product. **13 states** limit the individual serving size to 10 mg of THC. **3 states** limit the serving size to 5 mg of THC (CT, VT, and VA). Massachusetts limits a serving to 5.5 mg of THC.

Edible Product Restrictions: All **17 states** with potency restrictions limit the total amount of THC in a single edible product or package of edible products. For example, in California a cannabis infused chocolate bar could have 100 mg of THC. But the infused chocolate bar would need to be demarcated into 10 servings of 10 mg of THC. **13 states** set the total THC limit at 100 mg. **2 states** limit it to 50 mg of THC (VT and VA). Massachusetts limits edible cannabis products to 110 mg of THC. Michigan has set two edible cannabis product limits. For cannabis infused beverages, the limit is 100 mg of THC and the limit for solid edible products is 200 mg of THC.

THC Isomers and Precursors: States have different approaches to defining the cannabinoids that are included in their THC limits. **10 states** restrict their THC limit to delta-9 THC, the primary intoxicant found in the cannabis plant. States were included in this classification if they specifically limited THC to delta-9 or simply used the term tetrahydrocannabinol or THC without defining it further. **5 states** include tetrahydrocannabinolic acid (THCA) in their THC calculations. THCA is not an intoxicant but can convert into THC when exposed to heat through a process called decarboxylation.² In addition, **3 states** include isomers of delta-9 THC in their THC calculation (CT, MI, and NV). An isomer is a compound with the same chemical formula but a different arrangement of atoms in the molecule and different properties. Connecticut and Nevada include isomers of delta-9 THC and specifically list delta-7, delta-8, and delta-10. Michigan includes delta-8 and delta-9 THC when setting limits on edible products. It also limits the amount of delta-8 THC to ten percent of the products total THC.

THC Homogeneity: **9 states** explicitly require THC homogeneity in edible cannabis products (AK, AZ, CA, CO, CT, ME, MA, MI, and NV).

Restrict THC percentage in Cannabis Concentrates or Extracts: Cannabis concentrate is a broad term referring to all products that have been extracted from the plant. Although extract and concentrate are often used interchangeably, some define extract as a cannabis product manufactured using solvents.³ These products have very high THC concentrations and can be vaporized and



inhaled using a vape pen or by dabbing. None of the states in this fact sheet have placed a THC concentration limit on these products.

THC Potency Tax: Three states tax cannabis and cannabis products based on their THC levels (CT, IL, and NY). Connecticut requires retailers to pay a potency excise tax. The tax rates are \$0.00625 per mg of total THC in flower; \$0.0275 per mg of total THC in edibles; and \$0.009 per mg of total THC in other cannabis products. Illinois has a cannabis potency tax of 10% of the purchase price for cannabis with Delta-9 THC levels at or below 35% and 25% of the purchase price for cannabis with Delta-9 THC levels above 35%. New York taxes: Cannabis flower at 0.5 cents per mg of total THC; concentrated cannabis at 0.8 cents per mg of total THC; and cannabis edible products at 3 cents per mg of total THC.

III. Research Table

This table contains the policy research for the twenty jurisdictions with adult-use cannabis. N/A stands for “not applicable.” N/A is used when the variable is not applicable because the jurisdiction does not have a licensed adult-use market (D.C.). Although Virginia does not have a licensed market it has established regulatory guidance. N/C stands “not covered in statute or regulation.” N/C is used when an agency has been given authority to address product potency but has yet to draft the relevant regulations (NY and RI). As a result of these qualifications, **the research sample set is 17 states** for the analysis of each variable. However, New York has adopted a THC potency tax, which is discussed in the relevant section.

	Citation	Edible Serving	Edible Product	THC Isomers/Precursors	THC Homogeneity	Limit THC % in Concentrates	THC Potency Tax
AK	3 AK ADC 306.560 (Potency) 3 AK ADC 306.645 (Lab Testing)	10 mg active THC or Delta-9	100 mg of active THC or Delta-9	No	Yes	No	No
AZ	ARIZ. ADMIN. CODE § 9-18-313 . (Edible Food Products) ARIZ. ADMIN. CODE § 9-18-408 (Definition of Total THC)	10 mg of Total THC	100 mg of total THC	Yes ⁴	Yes	No	No
CA	CAL. BUS. & PROF. CODE § 26130 (serving) CAL. BUS. & PROF. CODE § 26100 (testing) CAL. CODE REGS. 4, § 17304 (serving and package) CAL. CODE REGS. 4, § 15000 (definitions)	10 mg of THC	100 mg of THC	No	Yes	No	No
CO	COLO. REV. STAT. § 44-10-203 (serving and package) COLO. CODE REGS. § 212-3:1-115 (Serving and package) COLO. CODE REGS. § 212-3:4-125 (homogeneity)	10 mg of active THC	100 mg of active THC	No	Yes	No	No

	Citation	Edible Serving	Edible Product	THC Isomers/Precursors	THC Homogeneity	Limit THC % in Concentrates	THC Potency Tax
CT	CONN. GEN. STAT. § 21a-240 (THC and Total THC Definitions) CONN. GEN. STAT. § 21a-421j (serving) CONN. AGENCIES REGS. § 21a-421j-26 (homogenous) CONN. AGENCIES REGS. § 21a-421j-32 (Serving and Package) CONN. GEN. STAT § 12-330II (Tax Rates)	5 mg of THC	100 mg of THC	Yes ⁵	Yes	No	Yes- Potency-based excise tax \$0.00625 per mg of total THC in flower \$0.0275 per mg of total THC in edibles \$0.009 per mg of total THC in other cannabis products.
DC	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IL	410 ILCS 705/55-21(k) 8 ILL. ADM. CODE 1300.920 410 ILCS 705/65-10 (Tax Rate)	10 mg of THC	100 mg of THC	No	No	No	Yes- Cannabis Potency Purchaser Excise Tax 10% of purchase price for cannabis with Delta-9 THC levels at or below 35% 25% of the purchase price for cannabis with



	Citation	Edible Serving	Edible Product	THC Isomers/Precursors	THC Homogeneity	Limit THC % in Concentrates	THC Potency Tax
							Delta-9 THC levels above 35% 20% of purchase price for all cannabis infused products.
ME	ME. REV. STAT. TIT. 28-B § 102 (definitions) ME. REV. STAT. TIT. 28-B § 703 (restrictions)	10 of mg THC	100 mg of THC	No	Yes	No	No
MA	935 MASS. CODE REGS. 500.002 (definitions) 935 MASS. CODE REGS. 500.150 (Restrictions) 935 MASS. CODE REGS. 500.160 (Product testing protocol)	5.5 mg of active THC	110 mg of active THC	No	Yes	No	No
MI	MICH. ADMIN. CODE R. 420.403 (homogeneous) Cannabis Regulatory Agency-Technical Bulletin-Maximum THC Concentrations for Marijuana-Infused Products.	10 mg of THC (edibles) 10 mg of THC (Beverages)	200 mg of THC (edibles) 100mg of THC (Beverages)	Yes ⁶	Yes	No	No
MT	MONT. CODE. ANN. § 16-12-224 (THC limits)	10 mg of THC	100 mg of THC	No	No	No	No

	Citation	Edible Serving	Edible Product	THC Isomers/Precursors	THC Homogeneity	Limit THC % in Concentrates	THC Potency Tax
	MONT. ADMIN. R. § 42.39.102 (Definitions)						
NV	NEV. REV. STAT. § 678D.420 (THC Limits) NEV. REV. STAT. § 678A.240 (THC definition) NEV. REV. STAT. § 453.139 (THC definition) NEV. ADMIN. CODE § 453D.784 (Homogeneous)	10 mg of THC	100 mg of THC	Yes ⁷	Yes	No	No
NJ	N.J. STAT. § 24:6I-33 (definitions) N.J. ADMIN. CODE § 17:30-11.5 (THC limits)	10 mg of active THC	100 mg of active THC	Yes ⁸	No ⁹	No	No
NM	N.M. Admin. Code 16.8.1.7 (Definitions) N.M. Admin. Code 16.8.3.12 (THC limits) N.M. Admin. Code 16.8.7.15 (Homogeneity)	10 mg of total THC	100 mg of Total THC	No ¹⁰	No ¹¹	No	No
NY	N.Y. Cannabis Law § 81 (Requiring Product Regulation) ¹² N.Y. TAX LAW § 493 (TAX RATE)	N/C	N/C	N/C	N/C	N/C	Yes-potency excise tax Cannabis flower at 0.5 cents per mg of total THC



	Citation	Edible Serving	Edible Product	THC Isomers/Precursors	THC Homogeneity	Limit THC % in Concentrates	THC Potency Tax
							<p>Concentrated cannabis at 0.8 cents per mg of total THC.</p> <p>Cannabis edible product at 3 cents per mg of total THC.</p>
OR	OR. ADMIN. R. 845-026-0100 (Definitions) OR. ADMIN. R. 845-026-0210 OR. ADMIN. R. 845-026-0210 TABLE 1 (Product THC limits) OR. ADMIN. R. 333-064-0100 (calculating total Delta-9 THC)	10 mg of Total Delta-9-THC	100 mg of Total Delta-9-THC	Yes ¹³	No	No	No
RI	R.I. GEN LAWS § 21-28.11-5 (Duties of the Commission) ¹⁴	N/C	N/C	N/C	N/C	N/C	No
VT	VT. STAT. ANN. TIT. 7 § 881 (THC Limits) VT. CODE R. 26-1-2.9.2 (Potency Testing)	5 mg of THC	50 mg of THC	Yes ¹⁵	No	No	No

	Citation	Edible Serving	Edible Product	THC Isomers/Precursors	THC Homogeneity	Limit THC % in Concentrates	THC Potency Tax
VA	VA. CODE ANN. § 4.1-606 (THC limits) ¹⁶	5 mg of THC ¹⁷	50 mg of THC ¹⁸	No	No	No	N/A
WA	WASH. ADMIN. CODE § 314-55-095 (THC Limits)	10 mg of active THC or Delta 9.	100 mg of active THC or Delta 9.	No	No	No	No

This document was developed by Mathew R. Swinburne, J.D., Associate Director for the Network for Public Health Law-Eastern Region. The Network for Public Health Law provides information and technical assistance on issues related to public health. The legal information and assistance provided in this document does not constitute legal advice or legal representation. For legal advice, please consult specific legal counsel.

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¹ See e.g., John Ingold, *Kids' emergency room visits for marijuana increased in Colorado after legalization, study finds*, THE DENVER POST (July 26, 2016), <https://www.denverpost.com/2016/07/25/colorado-kids-emergency-room-visitsmarijuana-increased/>.

² See Helene Perrotin-Brunel, et. al., *Decarboxylation of D9 -tetrahydrocannabinol: Kinetics and molecular modeling*, Journal of Molecular Structure 987 (2011) 67–73.

³ National Institute on Drug Abuse, *Cannabis (Marijuana) Concentrates DrugFacts*, available at <https://nida.nih.gov/publications/drugfacts/cannabis-marijuana-concentrates>.

⁴ Arizona regulates the amount of Total THC in an edible product. Total THC is the sum tetrahydrocannabinolic acid (THC-A), multiplied by 0.877, and delta-9-tetrahydrocannabinol (Δ9-THC).

⁵ Connecticut limits the amount of total THC in an edible product. THC is defined as “tetrahydrocannabinol, including, but not limited to, delta-7, delta-8-tetrahydrocannabinol, delta-9-tetrahydrocannabinol and delta-10-tetrahydrocannabinol, and any material, compound, mixture or preparation which contain their salts, isomers and salts of isomers, whenever the existence of such salts, isomers and salts of isomers is possible within the specific chemical designation, regardless of the source.” Total THC means the “sum of the percentage by weight of tetrahydrocannabinolic acid, multiplied by eight hundred seventy-seven-thousandths, plus the percentage of weight of tetrahydrocannabinol.”

⁶ Michigan includes delta-8 and delta-9 THC when setting limits on edible products. It also limits the amount of delta-8 THC to ten percent of the products total THC.


⁷ Nevada defines THC as “delta-9-tetrahydrocannabinol and any structural, optical or geometric isomer thereof, including, without limitation.” The statute specifically references delta-7, delta-8, and delta-10.

⁸ New Jersey defines THC as delta-9-tetrahydrocannabinol and its precursor, tetrahydrocannabinolic acid.

⁹ [N.J.A.C. 17:30–16.4](#) dictates that a testing laboratory shall analyze the samples according to the Cannabis Regulatory Commission's Testing Guidance, which will be available on the Commission's website. This testing guidance may address the need for THC homogeneity, but the guide is not yet available on the agency website.

¹⁰ New Mexico does not define the term “total THC”. However, it defines THC as “tetrahydrocannabinol, a cannabinoid that is the primary psychoactive ingredient in cannabis.” This indicates that isomers and precursors are not included in the serving and package THC restrictions.

¹¹ See N.M. Admin. Code 16.8.7.15 (Table 1) (New Mexico only requires homogeneity testing of flower and trim. This testing requirement begins in 2024).



¹² New York has directed the Cannabis Control Board to draft regulations pertaining to THC serving and package limits. The [proposed packaging and labeling regulations](#) do not address the issues covered in this survey. The policy variables may be addressed in future regulations.

¹³ Total Delta-9-THC is the sum tetrahydrocannabinolic acid (THC-A), multiplied by 0.877, and delta-9-tetrahydrocannabinol (Δ 9-THC).

¹⁴ The Rhode Island Cannabis Control Commission as been tasked with drafting regulations pertaining to adult-use cannabis products. However, the commission has yet to draft these regulations.

¹⁵ In Vermont, the laboratory measurement of potency is determined by total theoretical THC. This number is calculated as follows: the sum of the concentration of delta-9 tetrahydrocannabinol added to the amount of tetrahydrocannabinolic acid after it is multiplied by 0.877 on a dry weight basis and reported to two significant figures. This calculation is not limited to combustible products.

¹⁶ Virginia did not reenact the legislation that would have created a regulated market, as a result there is little regulatory framework. See Virginia House Bill 950, *Cannabis control; retail market, penalties* (2022) available at <https://lis.virginia.gov/cgi-bin/legp604.exe?221+cab+HC10208HB0950+BREF> (Bill creating framework for adult-use cannabis industry died in the General Laws Committee).

¹⁷ The Virginia Cannabis Control Authority is tasked with drafting potency regulations for edible products. However, the maximum serving size is 5 mg of THC.

¹⁸ The Virginia Cannabis Control Authority is tasked with drafting potency regulations for edible products. However, the product limit is 50 mg of THC.