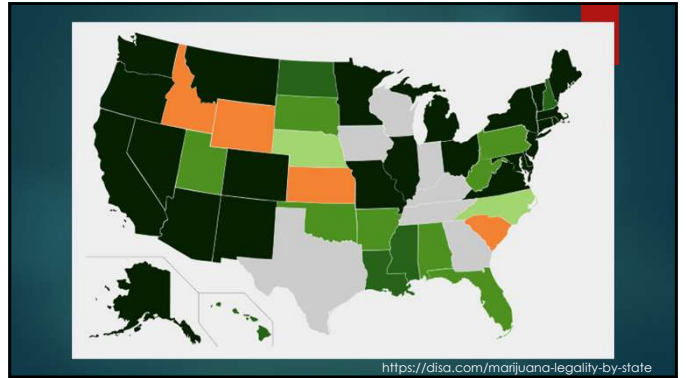


1



2

Oklahoma Cannabis Laws At a Glance

- Oklahoma has legalized medical marijuana only. Recreational use of cannabis is not legal.
- Oklahoma residents with a physician's recommendation can apply for a medical marijuana patient license.
- Oklahoma cannabis business license holders must be 25 years old, an Oklahoma resident, and have a certificate of good standing from the state.
- The application fee for a cannabis business is \$2,500.
- Oklahoma imposes a 7% excise tax on cannabis sales, in addition to state and local tax.
- The regulatory body for Oklahoma's medical marijuana industry is the Oklahoma Medical Marijuana Authority (OMMA).
- Oklahoma patients are allowed up to 3 ounces of marijuana on their person.
- Medical marijuana patients may possess up to 8 ounces in their residence.

3

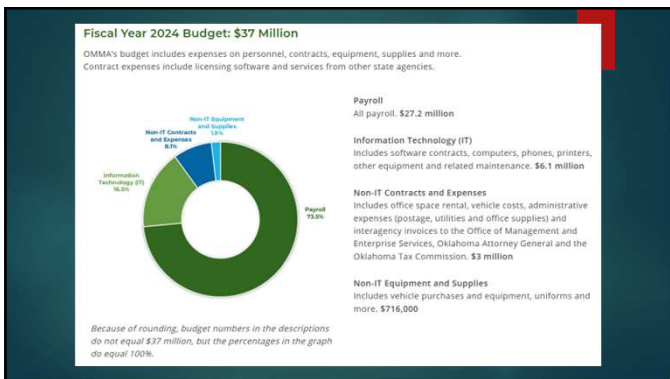
Tax Revenue Reports

Current Tax Revenue Report

TAX REVENUE REPORT Jan. 5, 2026

SQ 788 EXCISE TAX <small>As of FY 2024, OMMA is an appropriated agency and does not receive 788 tax revenue.</small>		STATE AND LOCAL SALES TAX <small>OMMA does not receive state or local sales tax revenue.</small>	
FY 2020 (July 2019 - June 2020)	\$42,409,066	FY 2020 (July 2019 - June 2020)	\$53,982,833
FY 2021 (July 2020 - June 2021)	\$66,098,861	FY 2021 (July 2020 - June 2021)	\$82,750,797
FY 2022 (July 2021 - June 2022)	\$60,215,200	FY 2022 (July 2021 - June 2022)	\$77,650,906
FY 2023 (July 2022 - June 2023)	\$51,916,563	FY 2023 (July 2022 - June 2023)	\$67,324,319
FY 2024 (July 2023 - June 2024)	\$51,007,322	FY 2024 (July 2023 - June 2024)	\$65,742,279
FY 2025 (July 2024 - June 2025)	\$47,522,561	FY 2025 (July 2024 - June 2025)	\$60,821,787
FY 2026 (July 2025 - Dec. 2025)	\$22,135,662	FY 2026 (July 2025 - Dec. 2025)	\$28,710,059

4



5

Objectives

- Identify the types and formulations of cannabis.
- Articulate the effects of cannabis and how to manage them.
- Describe indications for cannabis treatment.

6

Disclosures

- ▶ Cannabis remains a Schedule 1 drug federally
- ▶ Cannabis for medical and/or recreational use differs from state to state
- ▶ Content for informational purposes only

7

	ABUSE POTENTIAL	MEDICAL USE	SAFETY/DEPENDENCE	EXAMPLES
SCHEDULE I	High	⊘ Not currently accepted	Lack of accepted safety for use of the substance under medical supervision	Marijuana, Heroin, lysergic acid diethylamide (LSD), 3,4-methylenedioxymethamphetamine (MDMA), psilocybin
SCHEDULE II	High	✓ Currently accepted	Abuse may lead to severe psychological or physical dependence ^a	Cocaine, methamphetamine, oxycodone, fentanyl, Adderall [®]
SCHEDULE III	Less than the substances in Schedules I and II	✓ Currently accepted	Abuse may lead to moderate or low physical dependence or high psychological dependence ^a	Ketamine, anabolic steroids, testosterone, Tylenol with codeine [®]
SCHEDULE IV	Low potential for abuse relative to the substances in Schedule III	✓ Currently accepted	Abuse may lead to limited physical dependence or psychological dependence relative to the substances in Schedule III ^a	Xanax, Valium, Ambien [®]
SCHEDULE V	Low potential for abuse relative to the substances in Schedule IV	✓ Currently accepted	Abuse may lead to limited physical dependence or psychological dependence relative to the substances in Schedule IV ^a	Cough medicines with codeine, certain antidiarrheal medicines, FDA-approved drugs containing the marijuana extract cannabidiol (CBD) [®]

8

MEDICAL CANNABIS TIMELINE

9

The Legalization of Marijuana

10

Racial Profile: Cannabis Use

2018 National Survey on Drug Use and Health- Marijuana

Used marijuana in past year	Used Marijuana during lifetime
White Americans: 16.5%	White Americans: 50.7%
African Americans: 17.8%	African Americans: 42.4%
Hispanic or Latino Americans: 13.6%	Hispanic or Latino Americans: 33%

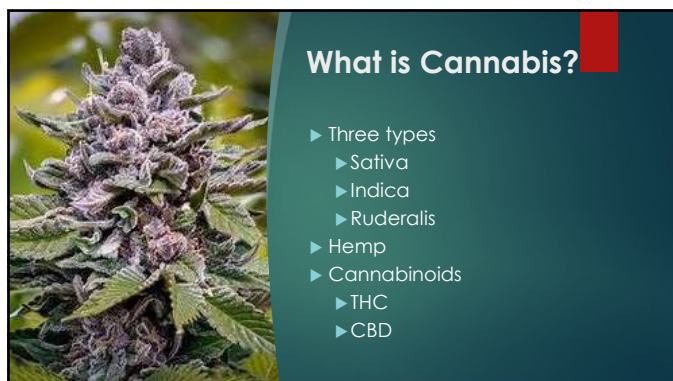
- ▶ General incarceration rates
 - ▶ Black men imprisoned 6x more often than whites
 - ▶ Hispanic men imprisoned 2.7x more often than whites
- ▶ Federal prisons- almost half imprisoned for drug offenses
 - ▶ 22% White
 - ▶ 37% Black
 - ▶ 39% Hispanic
- ▶ State prisons-about 15% imprisoned for drug offense
 - ▶ 32% White
 - ▶ 30% Black
 - ▶ 20% Hispanic

11

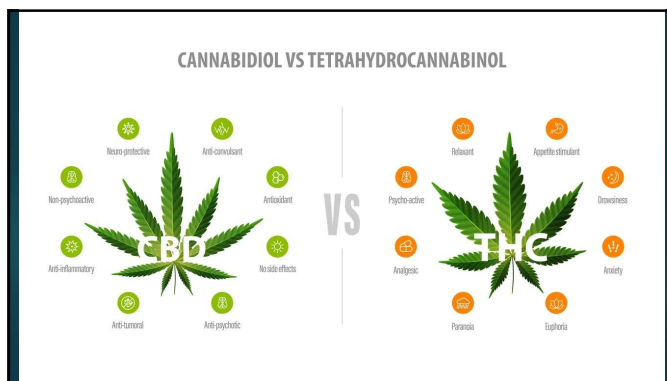
Objective 1

▶ Identify the types and formulations of cannabis.

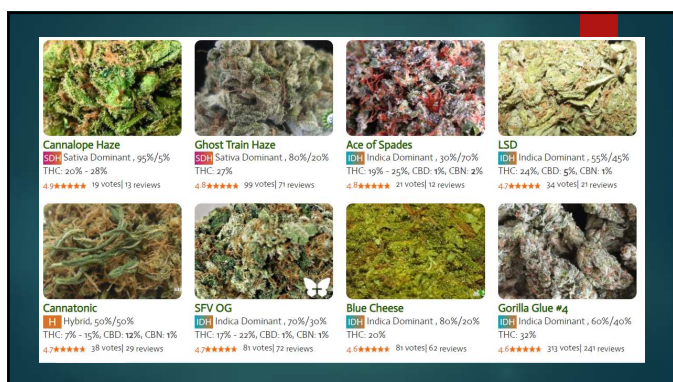
12



13



14



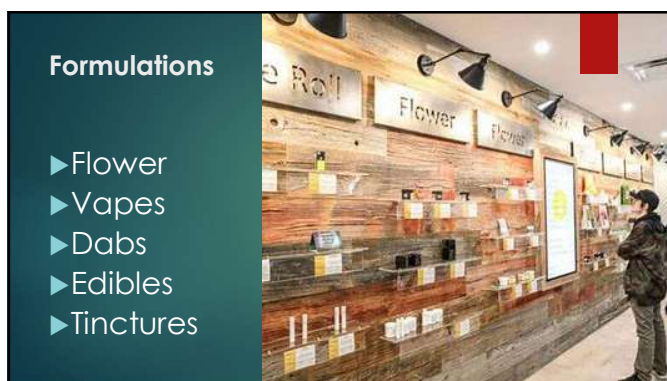
15



16

COMMON CANNABIS TERPENES				
LIMONENE	PINENE	MYRCENE	LINALOOL	CARYOPHYLLENE
CITRUS, LEMON	PINE	MUSKY, EARTHY	FLORAL, SWEET	WOOD, SPICE
AROMA				
STRESS RELIEF, ELEVATED MOOD	CREATIVITY, ALERTNESS, EUPHORIA	SEDATION, BODY HIGH, RELAXATION	CALMING, RELAXATION	NO NOTED EFFECTS
EFFECTS				
ANTI-ANXIETY, ANTIDEPRESSANT	ASTHMA, ANTI-INFLAMMATION	ANTIOXIDANT, INSOMNIA	ANTI-ANXIETY, SEDATING	CHRONIC PAIN, INSOMNIA
MEDICAL BENEFITS				
SUPER LEMON HAZE, LEMON SKUNK	TRAINWRECK, BUBBA KUSH	WHITE WIDOW, BLUE DREAM	SKYWALKER OG, HEADBAND	WHITE WIDOW, OG KUSH
STRAINS				
CITRUS, PEPPERMINT	PINE, PARSLEY, BASIL, ROSEMARY	MANGO, THYME, LEMONGRASS	LAVENDER, ROSEWOOD	PEPPER, CLOVE
ALSO FOUND IN				

17



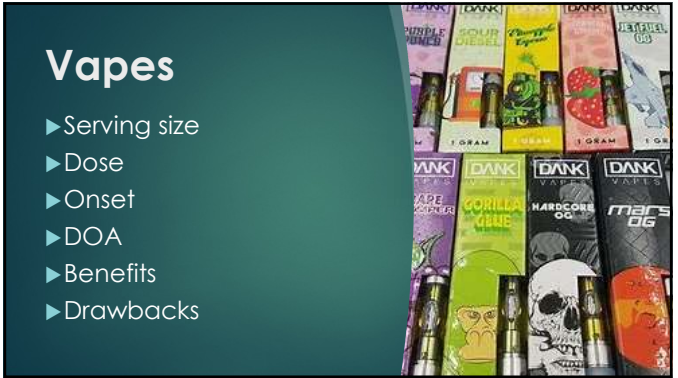
18



Flower

- ▶ Serving size
- ▶ Dose
- ▶ Onset
- ▶ DOA
- ▶ Benefits
- ▶ Drawbacks

19



Vapes

- ▶ Serving size
- ▶ Dose
- ▶ Onset
- ▶ DOA
- ▶ Benefits
- ▶ Drawbacks

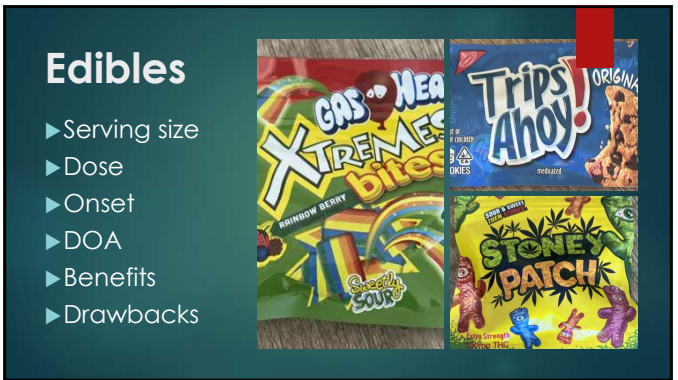
20



Dabs

- ▶ Serving size
- ▶ Dose
- ▶ Onset
- ▶ DOA
- ▶ Benefits
- ▶ Drawbacks

21



Edibles

- ▶ Serving size
- ▶ Dose
- ▶ Onset
- ▶ DOA
- ▶ Benefits
- ▶ Drawbacks

22



Pediatrics

- ▶ Overdose
- ▶ Signs and symptoms
- ▶ Management

23



Tinctures

- ▶ Serving size
- ▶ Dose
- ▶ Onset
- ▶ DOA
- ▶ Benefits
- ▶ Drawbacks

24

Objective 2

- ▶ Articulate the effects of cannabis and how to manage them.

25

Acute Effects of Cannabis

- ▶ CNS
 - ▶ Anxiolysis, anxiety, euphoria, paranoia, dizziness, headache, memory dysfunction, analgesia
- ▶ Cardiovascular
 - ▶ Tachycardia, orthostasis, vasodilation
- ▶ Pulmonary
 - ▶ Bronchodilation, hyperreactivity, edema
- ▶ GI
 - ▶ Antiemetic, increased appetite, abdominal pain
- ▶ Endocrine
 - ▶ None

26

Long Term Effects of Cannabis

- ▶ CNS
 - ▶ Like acute, but tolerance develops
- ▶ CV
 - ▶ Atherosclerosis
 - ▶ Pulmonary
 - ▶ Chronic bronchitis, emphysema
- ▶ GI
 - ▶ Hyperemesis
- ▶ Endocrine
 - ▶ Gynecomastia, anovulation, galactorrhea

27

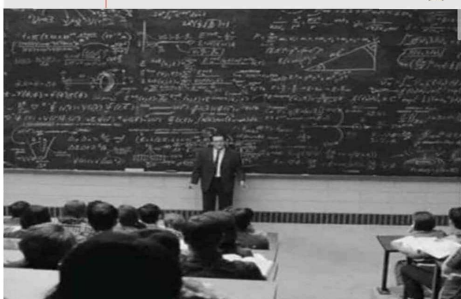
Triage Summary

Triage Note

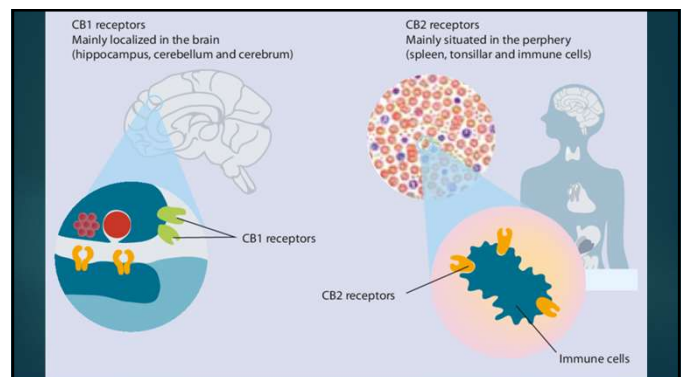
01/06 2258 - Took THC gummy, SOB, hard to move, hard to think, panic attack, vomiting.

28

Explaining the Endocannabinoid System to Your Co-workers.



29



30

The Human Endocannabinoid System

The endocannabinoid system (ECS) consists of cannabinoid receptors, endocannabinoids and their metabolic enzymes. Two major cannabinoid receptors, CB1 and CB2, and two main endocannabinoids, anandamide (AEA) and 2-arachidonyl glycerol (2-AG), have been identified. Human endocannabinoids and plant cannabinoids, such as THC and CBD, bind to cannabinoid receptors with great specificity, resulting in a wide array of physiological responses such as inflammation and pain perception, immunity, energy and metabolism.

Cannabinoid receptors are widely distributed throughout the human body.

Receptors
 CB1 receptors are widely located in the brain and central nervous system but are also found in other tissues.
 CB2 receptors are most densely found in immunological tissues and throughout all cells.

Ligands
 AEA
 2-AG
 CBD
 THC

Presynaptic (sending neuron)
 Neurotransmitter
 Presynaptic Receptor
 Ligand Receptor

Postsynaptic (receiving neuron)

All bind to the CB1 receptor with greater affinity than CB2 receptors. All bind to both receptor with equal affinity. The CB1 receptor with greater affinity than the CB2 receptor and it has been suggested that binding effects of THC, anandamide, CBD, has the ability to both regulate the release of neurotransmitters. It has been proposed that binding effects of CBD are weaker than AEA.

31

Human Endocannabinoid System

CB1 Receptors target:	CB2 Receptors target:
Motor activity	Gut
Thinking	Kidneys
Motor co-ordination	Pancreas
Appetite	Adipose tissue
Short term memory	Skeletal muscle
Pain perception	Bone
Immune cells	Eye
	Tumours
	Reproductive system
	Immune system
	Respiratory tract
	Skin
	Central nervous system
	Cardiovascular system
	Liver

The Endocannabinoid system controls the receptors called CB1 and CB2. These receptors are found on cell surfaces and impact various biological processes.

CB1 is located in the brain, central nervous system, and more.

CB2 are found throughout the body and are associated with the immune system.

32

Objective 3

► Describe indications for cannabis treatment.

33

Pharmacological Potential of Cannabis

- Anticancer activities
- Antimicrobial activities
- Anti-seizure (Epilepsy)
- Neuroprotective properties (Parkinson's disease)
- Management of gastrointestinal disorders

34

<https://oklahoma.gov/omma/patients-caregivers/patient-licenses.html>

OKLAHOMA Medical Marijuana Authority

Patients/Caregivers | Businesses | Rules & Legislation | Help | About | Publications | More ▾

Oklahoma Medical Marijuana Authority (OMMA) > Patients/Caregivers > Patient Licenses

Patient Licenses

Quick Links

About | Resources | Patient License Types | Application Requirements for Each License Type | Adult Patient Licenses (In-State)

Out-of-State Patient Licenses | Short-Term (In-State) Licenses | Caregiver Licenses | Minor Patient Licenses | Application Fees | FAQs

35

Adult Patient Licenses (In-State)

Adult Patient (In-State) License FAQs

Oklahoma residents age 18 and up are eligible for a medical marijuana adult patient license with proof of identity, proof of residency, an [acceptable photo](#) and a signed [Physician Recommendation Form \(Adult Patient\)](#) from an authorized physician.

Licenses are valid for two years.

Patients who need a designated [licensed caregiver](#) must ensure the physician signing the Physician Authorization Form completes the section that certifies a caregiver is needed. Along with their caregiver, they must also sign the [Caregiver Designation Form](#).

The nonrefundable patient license application fee is \$100 plus a \$4.30 credit card processing fee, or \$20 plus a \$2.50 credit card processing fee for people with proof of enrollment in Medicaid ([SoonerSelect](#)) or [Medicare](#), or status as a 100% disabled veteran.

- [Apply Now](#)
- [Patient Application Checklist](#)
- [Photo Requirements](#)
- [Physician Recommendation Form \(Adult Patient\)](#)
- [Registered Physicians](#)
- [Caregiver Designation Form](#)
- [Withdrawal of Caregiver Designation Form](#)

36

Treatable Conditions

- ▶ Pain
- ▶ Spasticity
- ▶ Nausea
- ▶ PTSD
- ▶ Cachexia
- ▶ Anorexia
- ▶ Seizures
- ▶ Glaucoma
- ▶ Anxiety
- ▶ Insomnia

37

Qualifying Conditions For a Medical Marijuana Card in Oklahoma

As mentioned earlier, there are no specific qualifying conditions for medical marijuana in Oklahoma.

So, do not worry if your condition is not on the list below. You can chat with a medical marijuana doctor in Oklahoma to find out if cannabis could help you.


Still, certain illnesses respond well to cannabis treatment. For example:

- Anorexia and bulimia
- Anxiety
- Cachexia
- Cancer
- Chronic pain
- Epilepsy and other seizure disorders
- Glaucoma
- HIV/AIDS
- Terminal illness
- Inflammation
- Insomnia
- Migraines
- Multiple sclerosis
- Muscle spasms
- Neuropathic pain
- Post-traumatic stress disorder
- Severe nausea
- Spasticity

38

Pain

- ▶ Neuropathic pain, fibromyalgia, rheumatoid arthritis, and mixed chronic pain
- ▶ Oral cannabis most effective
- ▶ THC and CBD



39

Spasticity

Stiffness, muscle spasms, tremors

Subjective improvement in pain, shaking, spasms, spasticity, sleep, energy, tiredness

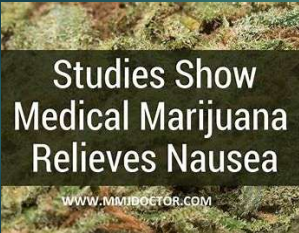
Objective improvement in spasticity, 50% pain reduction

THC and THC:CBD effective



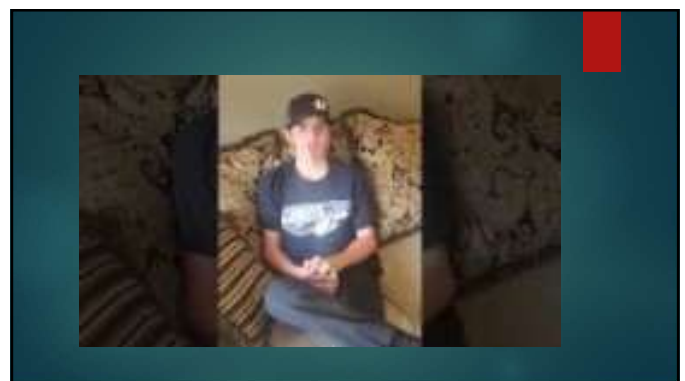
40

Nausea/Anorexia/Cachexia



- ▶ Cancer, HIV/AIDS, TB, CF, IBS
- ▶ THC regulates CB1 receptors
- ▶ CBD regulate serotonin receptors
- ▶ Oral or inhaled

41



42

PTSD SYMPTOMS RELIEVED BY CANNABIS

- IMPROVES SLEEP**
Cannabis helps some patients fall asleep quickly and stay asleep for longer than without medication.
- SLOWS DOWN THOUGHTS**
Cannabis helps slow racing thoughts and soothes intrusive thoughts to some patients.
- DECREASES HYPERAROUSAL**
Marijuana can help decrease the heightened and generally fast-tiggered panic attacks.

43

Objective 2

- ▶ Articulate the effects of cannabis and how to manage them.

44

Anesthetic Management

- ▶ Preoperative
- ▶ Intraoperative
- ▶ Postoperative

Scott-Herring, M, Thorpe, K, Cade, M, McAuliffe, M. (2023). "Peri-Procedural Considerations for Known Cannabis Users: Cannabis Use and Considerations for Procedural Sedation." Journal of Radiology Nursing.

45

Preoperative Considerations

- ▶ Assess use
 - ▶ Yes or no?
 - ▶ When last used?
 - ▶ Where obtain?
 - ▶ What form?
 - ▶ How much?
 - ▶ How often?

46

<https://ncsanalytics.com/transparency-project/ok/?shareable=true>

Top Product Category Retail Sales
DECEMBER 2025

23.7%	Flower & Buds
21.4%	Vape Cartridge
17.8%	Other
12.9%	Infused Pre-Roll
8.8%	Edible
16.1%	Chewer & Roll

Top Product Category Retail Sales
JANUARY 2026

20.8%	Flower & Buds
17.8%	Other
10%	Flower & Buds
21.3%	Vape Cartridge
13.5%	Infused Pre-Roll
6.7%	Edible
16.1%	Chewer & Roll

47

Preoperative Considerations

- ▶ Inhalation
- ▶ Oral ingestion

48

Preoperative Considerations

- ▶ Cardiovascular
 - ▶ Acute
 - ▶ Tachycardia
 - ▶ HTN
 - ▶ Increased myocardial O₂ demand
 - ▶ Increased risk of MI
 - ▶ AF and VF
 - ▶ Chronic
 - ▶ Bradycardia
 - ▶ Hypotension
 - ▶ Cardiac arrest
- ▶ Respiratory
 - ▶ Acute
 - ▶ Bronchodilation
 - ▶ Chronic
 - ▶ Airway irritation
 - ▶ Hypoxemia
 - ▶ Chronic cough
 - ▶ Increased bronchial tone
 - ▶ Increased airway hyper-reactivity
 - ▶ Risk of severe laryngospasm or bronchospasm

49

Consent

- ▶ Last use?
- ▶ Route?
- ▶ Dose?
- ▶ Frequency?
- ▶ 5 hours to baseline function

A Guide to Consent

People legally cannot give consent if they are:

- Drunk
- Intoxicated
- High
- Under the influence
- Asleep



50

Intraoperative

Pulmonary

- Hyper-reactive airway
- Care with DL
- Care with OPA placement

GI

- Full stomach
- Aspiration
- RSI

Cardiovascular

- Tachycardia
- HTN
- Increased O₂ demand
- Decreased O₂ delivery
- Care with medications that stimulate the SNS

51

Postoperative

- ▶ Cardiovascular effects
- ▶ MI
- ▶ Dysrhythmias
- ▶ Cardiac arrest
- ▶ Cardiomyopathy
- ▶ Increased oxygen consumption



52

Postoperative

- ▶ Neurological effects
 - ▶ CVA
 - ▶ Cerebrovascular ischemia
 - ▶ Vasospasms



53

Postoperative

- ▶ Pain
 - ▶ Increased pain
 - ▶ Increased opioid requirements
 - ▶ Multimodal pain management



54

Postoperative

- ▶ Withdrawal
 - ▶ 24-72 hours after last use
 - ▶ Peak in first week
 - ▶ Duration 2 to 4 weeks
 - ▶ S/S irritability, anger, anxiety
- ▶ Treatment
 - ▶ Gabapentin, dronabinol, and nabiximols



55

Objectives

- ▶ Identify the types and formulations of cannabis.
- ▶ Articulate the effects of cannabis and how to manage them.
- ▶ Describe indications for cannabis treatment.

56



Questions?

57

References

- ▶ Bridgeman MB, Abazia DT. Medicinal Cannabis: History, Pharmacology, And Implications for the Acute Care Setting. P T. 2017;42(3):180-188.
- ▶ Hudak J. Marijuana: A Short History. Brookings Institution Press. 2020. Chapter 2: Early Regulation and a New (Drug) Deal. Retrieved from: <http://survey.hsni.umaryland.edu/?url=http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=2372317&site=eds-live>
- ▶ Pisaniti S, Bifulco M. Modern history of medical cannabis: From Widespread use to prohibitionism and back. Trends Pharmacol Sci. 2017;38(3):195-98. Retrieved from: <http://survey.hsni.umaryland.edu/?url=http://search.ebscohost.com/login.aspx?direct=true&db=easefp&AN=30165614716301845&site=eds-live>
- ▶ Alexander JC, Joshi GP. A review of the anesthetic implications of marijuana use. Proc (Bayl Univ Med Cent). 2019;32(3):364-371. Published 2019 May 21. doi:10.1080/08998280.2019.1603034
- ▶ Cannabis Pharmacy: The Practical Guide to Medical Marijuana; M. Backes. Black Dog & Leventhal Publishers. New York. 2017. [c

58