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Women's Recovery - Chief Clinical Officer

Marijuana Impact Group – Speakers Bureau

2025 COLORADO PERINATAL SUBSTANCE USE DISORDER INTEGRATION CONFERENCE, AVON, CO

Hosted by:



Practice Innovation Program



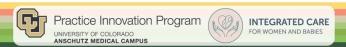
### Disclosure & Accreditation

#### **Disclosure Information**

In accordance with disclosure policies of ASAM and Joint Accreditation, the effort is made to ensure balance, independence, objectivity, and scientific rigor in all CME/CE activities. These policies include mitigating all relevant financial relationships with ineligible companies for the Planning Committees and Presenters. All activity Planning Committee members and Presenters have disclosed all financial relationship information. The ASAM CE Committee has reviewed these disclosures and determined that the relationships are not inappropriate in the context of their respective presentations and are not inconsistent with the educational goals and integrity of the activity. **The planners, faculty and have no relevant financial relationships**.

#### **Accreditation & Credit Designation Statements**

- Joint Accreditation Statement In support of improving patient care, this activity has been planned and implemented by the University of Colorado and the American Society of Addiction Medicine. The American Society of Addiction Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.
- Physicians The American Society of Addiction Medicine designates this live activity for a maximum of 5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
- Nurses This activity awards 5 Nursing contact hours.
- Social Workers As a Jointly Accredited Organization, ASAM is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. Regulatory boards are the final authority on courses accepted for continuing education credit. Social workers completing this course receive 5 general continuing education credits.



## Did you know...

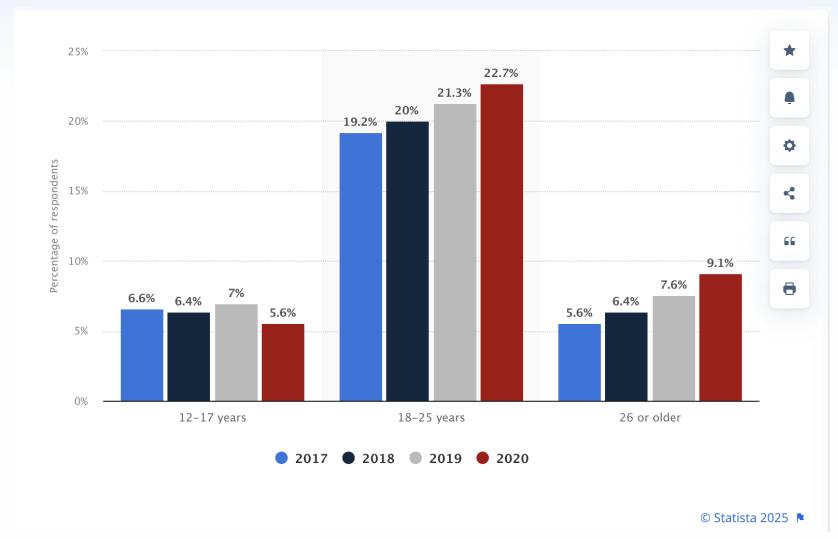
Every brain begins as female.

50.5% of the US population is female.

Until the 1990's, most studies to find effective treatment included only male participants.

8% of substance research is about women's needs.

#### According to the Brightfield group 59% of new weed users are women.



### Trends for Women

19- to 30-year-old <u>women reported a higher prevalence of past-year</u> cannabis use than men in the same age group, reflecting a reversal of the gender gap.

Men 35 to 50 maintained a higher prevalence of past-year cannabis use than women of the same age group, consistent with what's been observed for the past decade.









### 9 Reasons Why Weed Is Made for Women



Tiffany King 42 11 April, 2017 Culture

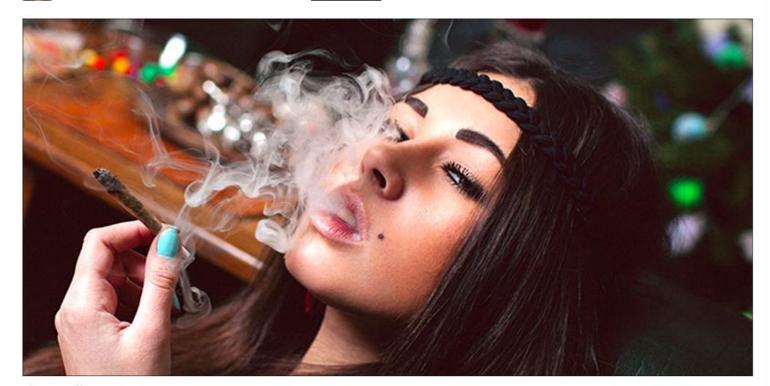
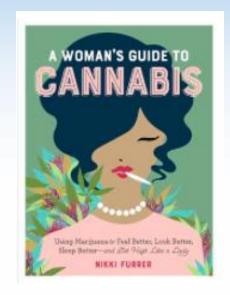


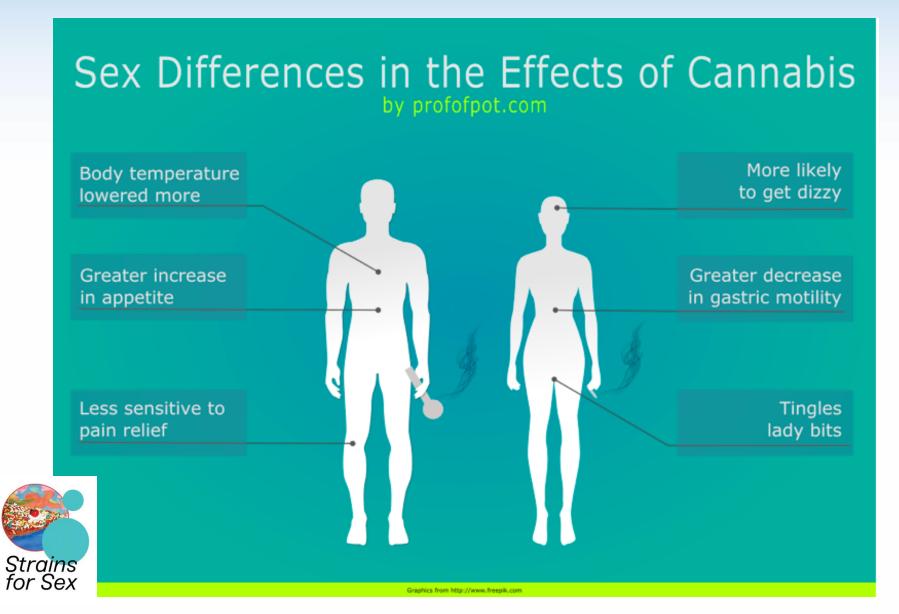
Photo credit

## Messaging from the Industry

- 1. It relieves symptoms of anxiety and stress
- 2. It can improve your sex life
- 3. It helps with weight maintenance
- 4. Women get high faster than men
- 5. It puts you to sleep
- 6. It alleviates PMS symptoms
- 7. It can prevent or treat cancer
- 8. It may alleviate pregnancy symptoms
- 9. It helps you enjoy life more











NSDUH annual report 2018; Dahlgren et al 2022

#### 'Mommy needs to microdose'

#### **Stage of Life / Hormones**



Pregnancy

Postpartum

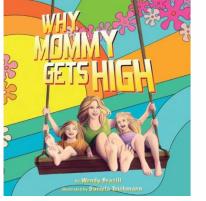
Parenting

Perimenopause

Menopause

Postmenopausal





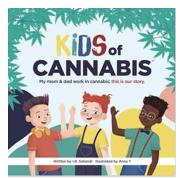


Participants reported current cannabis use (86.1%) and endorsed using medical cannabis for menopause-related symptoms (78.7%).











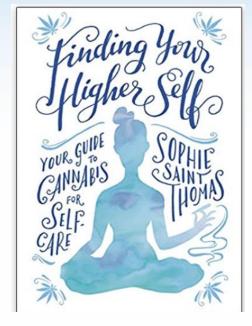
#### **Family**

Self

Children

Pets

Dogs have more cannabinoid receptors in their brains, which means the effects of cannabis are more dramatic and potentially more toxic when compared to humans. A small amount of cannabis is all it takes to cause toxicity in cats and dogs.





#### **Mental Health**

Anxiety

Stress

Depression

Insomnia

#### HEAD RIGHT

My very first experience with weed showed me that it was possible to turn off that nagging negative voice inside my brain. It was a wonderful discovery! AMY, NEW JERSEY



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FOR WOMEN AND BABIES



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## **Products and Potency**

## **Types of Cannabis**

- Plant
- Concentrates
- Distillates
- Tinctures
- Edibles
- Topicals
- Hemp
  - Delta 8
  - Delta 10
  - HHC
- CBD



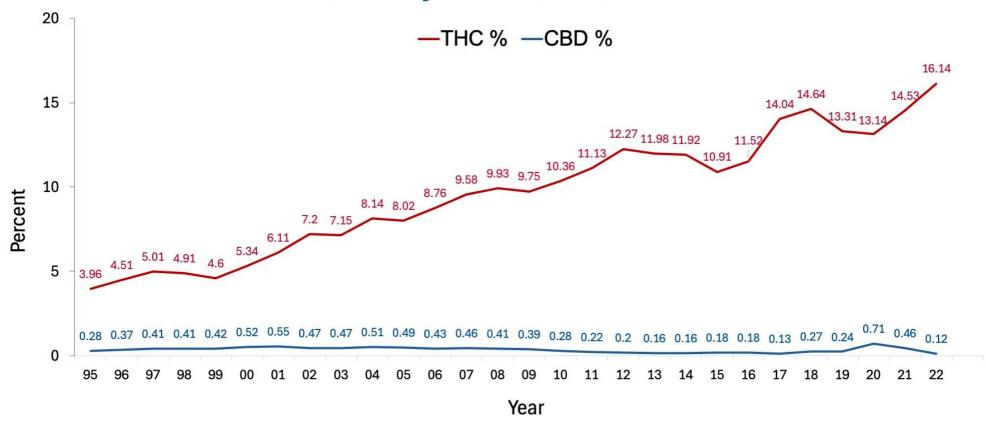




The percent of THC, also known as potency, has been steadily increasing in plants over the last 55 years, while CBD stayed the same.

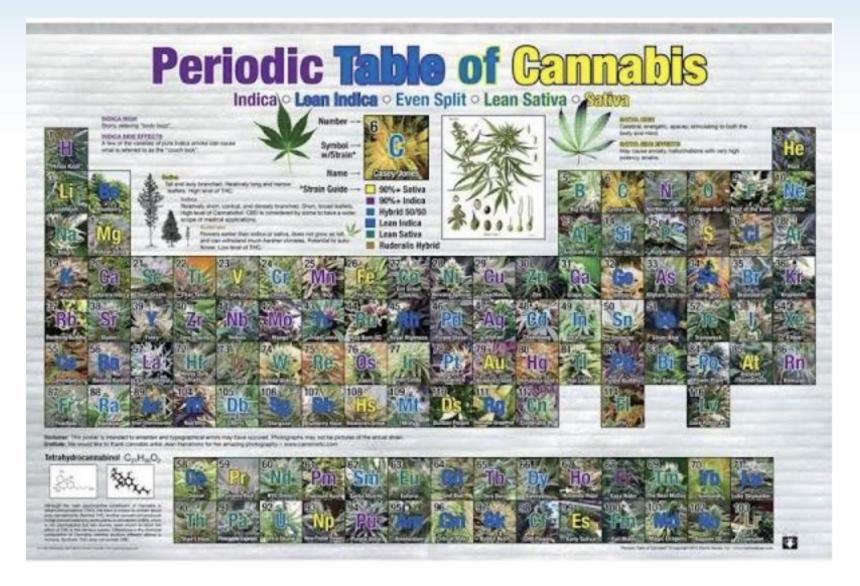
#### **Cannabis: % THC Over Time** 45 42% 40 THC Nationally 35 THC Colorado CBD Nationally 30 % THC by Dry Weight CBD Charlotte's web 20 **CBD** Only 15 THC: 10 **Psychoactive** Ingredient CBD: 5 **NON-Psychoactive** 0.2% Ingredient ~0.4% 1995 2005 2010 2015 1960 1965 1970 1975 1980 1985 1990 2000 Year

## Percentage of THC and CBD in Cannabis Samples Seized by the DEA, 1995-2022



SOURCE: U Miss, Potency Monitoring Project

#### Plant / Flower

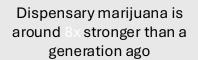




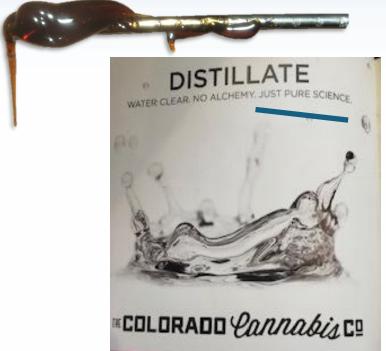
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80% of tested concentrates were contaminated





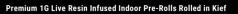
#### Concentrates





Topped my bowl with a little 90% pure THC oil.. One of the few times in my life I reached a [10]





Our premium pre-rolls are infused with strain specific Live Resin, filled with indoor flower, and coated in Kief.

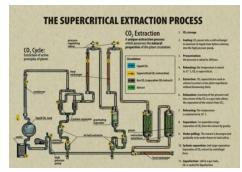






#### Extraction

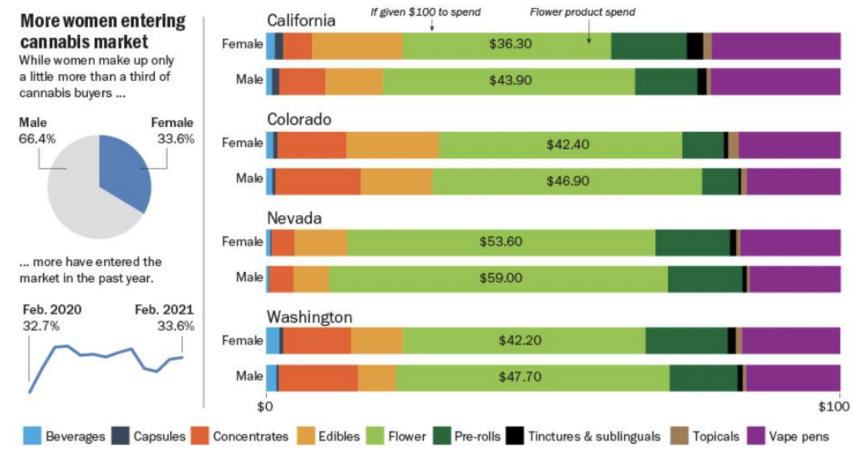




Distillation equipment used in a cannabis extraction lab.

### The Marijuana Buying Patterns of Women

Female cannabis buyers are more likely to purchase products other than flower compared to their male counterparts, according to an analysis of adult-use marijuana wallet spend in four Western states.



Source: Headset © 2021 Marijuana Business Daily, a division of Anne Holland Ventures Inc. All rights reserved.

















#### Relief Suppositories

\*\*\*\*

Formulated for relief during your menstrual period or for local muscular relaxation and inflammation relief

### **Body / Pleasure**













Jack the Ripper

Skunk #1

Willie Nelson

**Dutch Treat** 

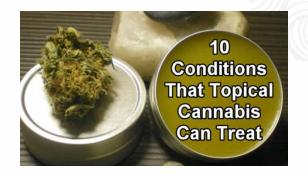
Doug's Varin



Durban Poison















Pacifica Highest Lash Chronic Volume Mascara (\$14)

## **Beauty / Aesthetics**











#### **CHEERS TO THIS**

cannabis-infused beverages. New data compiled by the cannabis tracking firm Headset finds that ladies across all ages buy more CBDor THC-spiked drinks-ranging from sparkling water to hard tonics and mocktails-than thirsty men.



#### **COWBOY K\*SH**

suede, saffron flower, labdanum, pot leaf, tonka, raspberry and patchouli \$32.00

### **Home / Pantry**

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#### \*\*\*\*

Perfect exactly like described. My daughter loved it. Highly recommend. Only took a  $\rightleftharpoons$  off because it took a while to get here.

### **Decor / Fashion**

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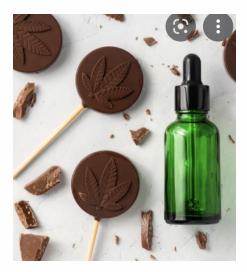














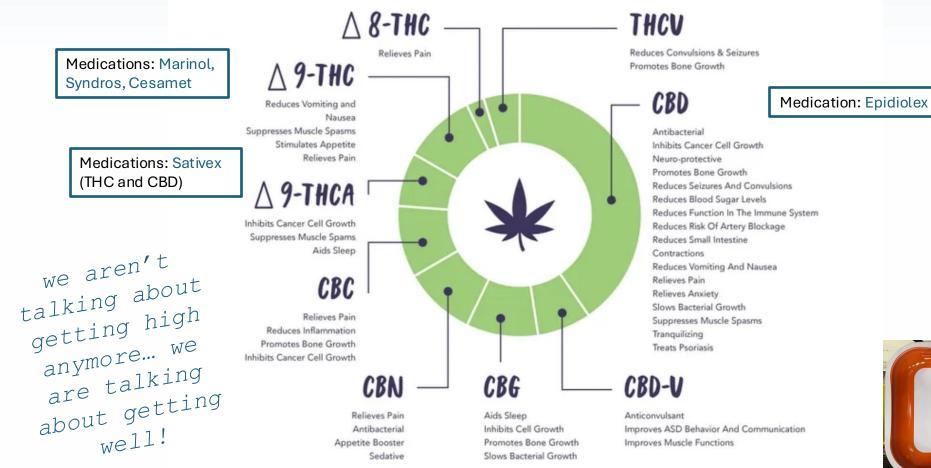




### **Tinctures**

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### Cannabinoids

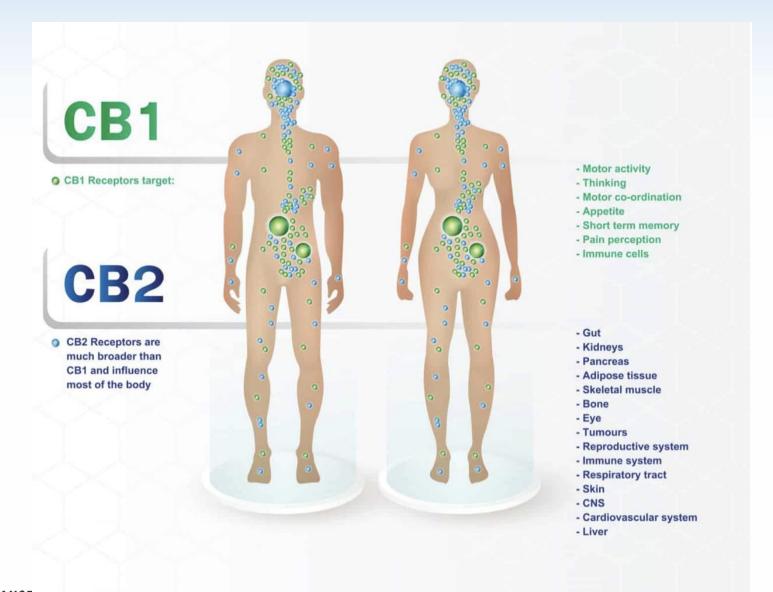


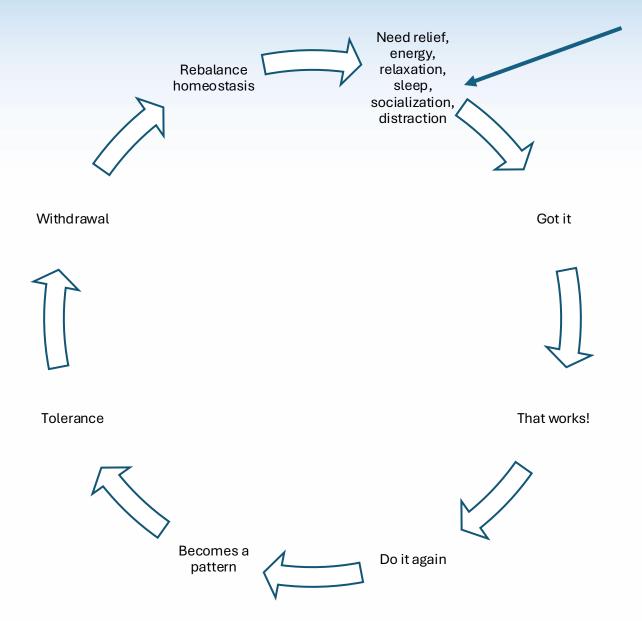


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## Impact on the Body and Mind

#### **Endocannabinoid System**







## Why Women Use

- Fighting exhaustion
- Coping with pain
- Self-treat mental health problems
- Controlling weight







Women are heavily influenced by their partners

### Telescoping effect

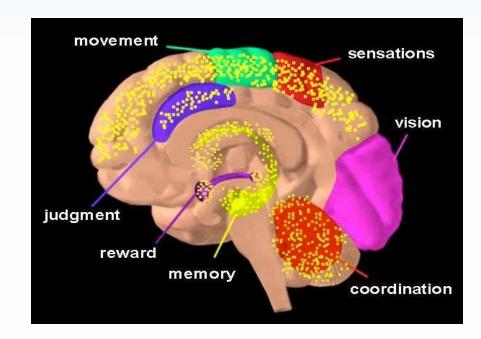
"Same disease at different rates."

- Women typically start with lower levels of substances but end up escalating use to a higher degree
- Body composition
  - Higher body fat
  - Lower volume of water
  - Less gastric enzyme
- Women incur more consequences of use (usually 1:2 ratio)
- Psychological differences in why women use
  - Mood regulation, stress reduction vs. risk taking





### THC and the Brain



- Inhibits sweating, ability to control body temp, and causes electrolyte imbalances (ANS)
- o Anerobic fatigue
- Increased heart rate

- Slows reaction time
- Impairs judgement
- Distorts depth perception
- Slows activity in hippocampus for 24 hours
- Distorts perceptions and impairs memory
- Decreases fine motor coordination (mostly hand/eye)

# THC and the Body

- Vasodilator / vasoconstrictor
  - Conflicting information regarding blood flow and oxygenation
- Appetite
  - Increased appetite, decrease in nausea
- Cardiovascular
  - Difficulties taking in sufficient oxygen
  - Increased heart rate (20 to 50 beats, for up to 3 hours)
  - Increased risk of angina, heart attack, strokes in those without previous history (blood pressure increases)
- Strength / Balance
  - Decreases in early power production
  - Increased sway
  - Reduced ability to maintain effort, physical / maximum work capacity

# THC and the Body

### Injury

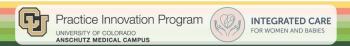
- Decreased bone density
- Increased risk for fracture
- Delayed healing of tendons, ligaments, and bone
- Postoperative complications increased opioid use and hyperemesis

#### Pain

- Changes in perception of pain (CB1 receptors in areas found in the brain that modulates nociceptive processing)
- Decreases pain threshold, requiring more medication
- Twice as likely to move on to abuse opioids
- Moderate analgesic for neuropathic pain, myofascial pain

#### Sleep

- THC assists when falling asleep (latency) however keeps one from entering REM sleep. Makes sleep less productive and restorative
- Excessive use to fall asleep often leads to long-term sleep disorders (>12 weeks)



## THC and the Mind

#### Mental Health

- Increased anxiety and depression (Short and long-term)
- Worsened outcomes of bipolar
- Acute anxiety and paranoia
- Increased risk of psychosis (up to 8x)
- Use before the age of 18 has 2.4 x higher risk of diagnosis of schizophrenia (dose response)
- Risk of suicide attempt requiring hospitalizations 2 x higher
- Myopic focus
- Decreased emotional regulation. Influences anxiety in fearful situations. Decreases the ability to identify and respond to happiness, sadness, and anger. Increases emotional distress.



Hall, 2014 and Volkow et al 2014; Hodcroft et al 2014; Asbridge et al 2014; Monte et al 2014; Di Forti et al 2019; Lisano et al 2019/2022; Gillman, Hutchison, Bryan 2015; Finn et al 2020; MacKenzie, A., & Cservenka, A. (2021).

## **THC** and Behaviors

- Cannabis users can have significantly impaired decision making capacities and greater risk-taking tendencies
- Cannabis use can impair driving ability (2x more likely to have auto accident and 9x bike / motorcycle)
- Impaired driving can last for up to 4 to 6 hours after use
- Second Hand smoke, even third hand exposure (particles that fall on objects and the floor and stick) can build up and be involuntarily ingested by children, pets, and adults







### Cross faded

Alcohol increases the absorption of THC

Dangerous because it prevents you from vomiting

Simultaneous alcohol and marijuana (SAM)

- Dizzy
- Nauseated
- Extreme paranoia
- Hallucinations
- Disorienting short-term memory loss
- Disconnect from reality
- Can resemble a panic attack



### **Factors**

Age of Onset
Frequency of Use
Intensity of Products

"...marijuana is addictive. Estimates from research suggest that about 30% of users become addicted; this number increases among those who start young, use stronger forms – J Leung et al 10/20















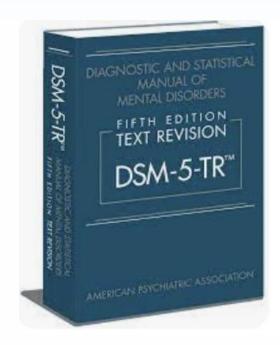






## Withdrawal

- A. Cessation of cannabis use that has been heavy and prolonged (ie, usually daily or almost daily use over a period of at least a few months).
- B. Three or more of the following signs and symptoms develop within approximately 1 week after cessation of heavy, prolonged use:
  - Irritability, anger or aggression
  - Nervousness or anxiety
  - Sleep difficulty (i.e., insomnia, disturbing dreams)
  - Decreased appetite or weight loss
  - Restlessness
  - Depressed mood
  - At least one of the following physical symptoms causing significant discomfort: abdominal pain, shakiness/tremors, sweating, fever, chills, or headache
- C. The signs or symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.



## Withdrawal

- Peaks at 4 days
- Last 16 days
- Bi-phasic withdrawal
- On Clinical Global Impression Scale, rated as markedly ill when they go through withdrawal
- More severe in women
- Symptoms are a negative reinforcement for continued use and are associated with less

treatment adherence

Appears to effect
47% of users up to
93% for very frequent
users
(JAMA 4/2020)

Women may be more susceptible to cravings and relapse.





DSM-5-TR



## Cannabis Hyperemesis Syndrome

"Scromitting"

Cannabinoid hyperemesis syndrome (CHS) is a condition that leads to repeated and severe bouts of vomiting.

Once the nausea and vomiting subside, usually within 48 hours, the patient enters the recovery phase. Recovery may range from days to months and is associated with cessation of cannabis use.



#### **PATHOPHYSIOLOGY**

Marijuana activates cannabinoid receptor 1 (CBI) resulting in inhibition of gastric secretion, lower esophageal sphincter relaxation, altered intestinal mobility and overall delayed gastric emptying.



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# Pregnancy/Parenting

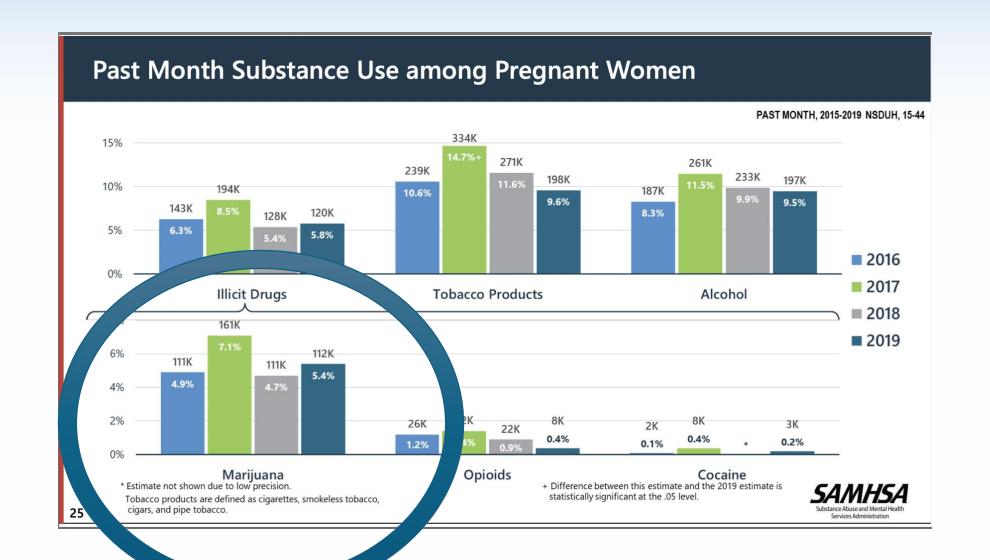
No amount of marijuana use during pregnancy is known to be safe

- Surgeon General VADM Jerome Adams



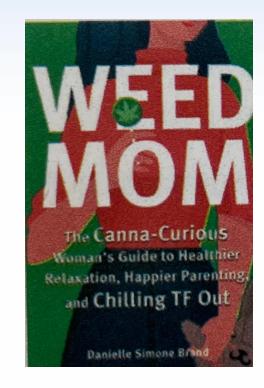






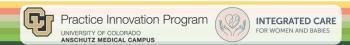
# Information (Medical vs. Industry)

- Women reported getting healthcare information from healthcare providers and dispensary employees
- 69% of budtenders recommended cannabis to treat nausea based on personal opinion
- 83% of medical dispensaries suggested cannabis use for pregnant women
- Medical providers have limited information and no best practices guidelines
- For those who received counseling, 78% of marijuana users were abstinent 151 days later and remained so until delivery









# Pre-pregnancy / fertility

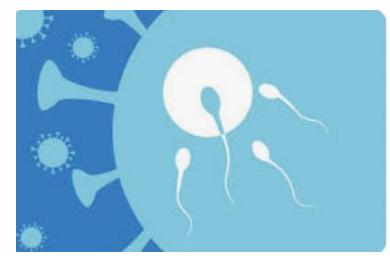
Cannabis can cause changes to menstrual cycles (delay or inhibit ovulation)

Cannabis can cause low sperm count and low motility, and morphological abnormalities

Smoking marijuana more than once weekly in the preceding 3 months was associated with a 29% reduction in total sperm count

Epigenetics - alterations in genes like DLGAP2

THC exposure has also been linked to a reduction in testicular size and altered hormone levels, impacting male reproductive health



Ilnitsky and Van Uum 2019; Amor, Ismaeil and Jankowski 2025; Hedges 2022

## Pregnancy

- Most widely used illicit drug used in pregnancy, rates from 3% to 30%.
- Cannabis freely crosses the placenta



- Increased rates of women reporting using cannabis from previous years 7.1% of pregnant women (ages 15 44) reported using during the past month.
- 1.2% to 3.1% of pregnant women report daily / near-daily use.
- Among younger and socioeconomically disadvantaged women, the prevalence of marijuana use is higher, in the range of 15 to 28 percent.
- 18.1% of pregnant women who were using cannabis in the past year met the criteria for cannabis use disorder.
- Nearly 1/2 of women who regularly smoke cannabis continue to use it during pregnancy.

## Post partum

Increases in cannabis use occur after delivery

Women often return to use following pregnancy to treat symptoms of postpartum

Onset of depression within 4 weeks of delivery (some guidelines extend up to 6 to 12 months)

Includes poor sleep, poor concentration, irritability, mood swings, guilt, feelings of extreme sadness, indifference, anxiety, changes in energy, and poor appetite.

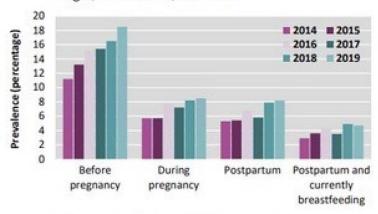
# Breastfeeding

- THC crosses into breast milk (lipophilic)
- It can accumulate to high concentrations (8 times higher than maternal plasma)
- It can be found in breastmilk in as little as one hour, lasting up to 6 weeks
- It can have cognitive, social and motor effects on the child, and they may be long term

The potential for cannabinoids to adversely affect developing fetal and infant brains led the Society of Obstetricians and Gynecologists of Canada and the Motherisk program, formerly run through SickKids, to recommend that all pregnant and breastfeeding women abstain from marijuana use. Jan 8, 2020



FIG. 26 Colorado: cannabis use among women before and during pregnancy and in the post-partum and breastfeeding stages, United States, 2014–2019



Source: Colorado Department of Public Health and Environment, "Pregnancy Risk Assessment Monitoring System (PRAMS)", data 2014–2019.

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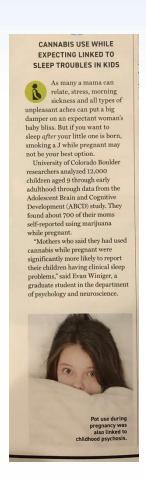
## Risks in Childhood

- Greater risks of problems with motor development
- Children whose mothers used marijuana during pregnancy were 50% more likely to be diagnosed with autism
- Impaired verbal, abstract, visual and quantitative reasoning, shortterm memory, and attention problems



## Impacts in Early Development

- Lower scores on verbal reasoning and memory tasks, poor language comprehension, visual and perceptual functions
- Deficits are seen in impulse control, problem-solving, attention span, and analytical skills among older-age children
- Lower global achievement, reading, spelling and, math scores
- Problems with neurological development (hyperactivity, poor cognitive functioning, and changes in dopaminergic receptors, increased diagnosis of autism and ADHD)
- Increased risk for psychopathology in middle childhood (psychotic-like experiences, depression, anxiety, impulsivity, attention, social problems and sleep disturbance)



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# Screening / Education / Treatment

- Screening for cannabis
- Provide counsel on lack of safety data around cannabis use
- Relapse prevention / anti-craving medication
- Recommendations for treatment

Providers report limited education or lack of best practices

UCSD STUDY: DOCS SHOULD SCREEN FOR CANNABIS USE DISORDER IN PREGNANT WOMEN







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### Interventions

Conversations (facts not fear)



- Support of recovery
- Screeners (CUDIT)
- Statistics (track and compare)
- Interventions
  - Periods of sobriety / Tolerance breaks
  - Treatment
  - Counseling
  - Peer support
  - Mutual aid groups



App to support "30 day weed break"



### "Cannabis conversation"

- Do you consume any form of cannabis?
- Using helps me
- Does anything else get close to the effects of cannabis?
- What strain? potency? frequency?
- If it keeps you from getting what you want or causes problems, would you be willing to try and stop for a period of time?

## Women "Must knows"

- Just as likely to develop use disorders
- Impact of cannabis use and withdrawal is harder on female bodies
- Potency is a concern
- Products are being positioned to become part of our everyday lives
- Research/science is trying to catch up with reality
- Women's substance use is influenced by relationships

- More likely to have panic attacks, anxiety, or depression
- Victims of DV are at increased risk of use
- Different brain changes
- Cannabis is not recommended during pregnancy /breastfeeding in any amount
- Consequences of use during pregnancy or while breastfeeding may not present until the child is school age

# THANK YOU FOR YOUR TIME





Dr. LaTisha Bader