

# Treatment of Insomnia with Cannabis

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## Disclosures



- Dr. Tishler has no disclosures to report.

# Learning Objective 1

Evaluate the role of cannabis in the treatment of insomnia.



# What is Insomnia?

- Increased sleep latency (trouble falling asleep)
- Difficulty maintaining sleep (early awakening)
- Mixed type
- 1/3 of patients in primary care report insomnia: 10% chronic<sup>1</sup>
- Chronic—3 nights per week for more than one month
- Mental health issues only account for 50%<sup>2</sup>

1. MacGregor KL, et al. *Gen Intern Med.* 2012;27(3):339-344. 2. Ford DE, Kamerow DB. *JAMA.* 1989;262(11):1479-84.

# Approaches to Treating Insomnia

## Nonpharmacologic

- Cognitive behavioral treatment (CBT)
- Sleep restriction treatment
- Stim control treatment
- Relaxation treatment

## Pharmacological

- Zolpidem (Ambien), Eszopiclone (Lunesta), Zaleplon (Sonata)
- Benzodiazepines
- Tricyclic antidepressants (TCAs)\*
- Trazadone\*
- Antipsychotics (Mirtazapine, Remeron)\*
- Antihistamines (Diphenhydramine, Benadryl)\*
- Melatonin, Valerian Root\*

\*Not approved by the FDA.

# How Does Cannabis Fit In?





# 3 Studies that Summarize What is Known About Cannabis and Insomnia at Present

- “CONCLUSION 4-19 There is moderate evidence that cannabinoids, primarily nabiximols, are an effective treatment to improve short-term sleep outcomes in individuals with sleep disturbance associated with obstructive sleep apnea syndrome, fibromyalgia, chronic pain, and multiple sclerosis.”<sup>1</sup>
- 409 patients: 45% reduction in insomnia reported severity, self reported, no control, results varied by methods<sup>2</sup>
- 81 patients: Decreased insomnia, Sativa > Indica for nightmares (14 patients), lower THC > higher, higher CBD -> worse insomnia<sup>3</sup>

CBD = cannabidiol; THC = tetrahydrocannabinol.

1. National Academies of Sciences, Engineering, and Medicine. 2017. *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24625>. Accessed February 17, 2020; 2. Vigil JM, et al. *Medicines (Basel)*. 2018;5(3). pii: E75; 3. Belendiuk KA, et al. *Addict Behav*. 2015;50:178-181.

# Risk/Reward

- Real:
  - Dependence (~3% over age 25)
  - Memory (Verbal slowing over 40y)
  - Drug Interactions (Almost all CBD)
- Disproven:
  - Falls (No increase risk of falls in elderly)
- Unclear:
  - Stroke<sup>1</sup>
  - Cardiac<sup>1</sup>
  - (OR ~1.2, but studies poor)





# How To Treat Insomnia with Cannabis



*(Hint: Not like this!)*

# Route of Administration Makes All The Difference

## ● Inhaled

- Rapid onset (10-15m)
- Moderate duration (3-4h)

## ● Caveats

- Some patients are resistant
- Slightly higher learning curve
- May provoke asthma/COPD

## ● Use flower not concentrate

## ● Oral

- Delayed onset (1-2h)
- Prolonged duration (8-12h)

## ● Caveats

- Avoid high sugar/calorie
- Bioavailability varies

## ● Use (small) edibles, not capsules or tincture

COPD = chronic obstructive pulmonary disease.

# Which Route Depends on What You're Treating

## ● Inhaled

- Best for sleep latency

## ● Tishler method of dosing

- Slow steady deep breath in, to max capacity. Immediate exhale. Called 1 puff.
- ~3-5mg THC if using 15-20% THC strain
- Start 1-2p, titrate to 4p, 15m interval
- Typically dosed shortly before bedtime

P = puff.

## ● Oral

- Best for poor sleep maintenance

## ● Direct dosing in mg

- Start 5mg, titrate to max 20mg
- Never repeat dose in same day
- Typically dosed shortly before bedtime
- Can shift 1-2h earlier to address both latency and maintenance

# Some Helpful Products: Inhaled\*



- Temperature is crucial to safe, effective vaporization: 350°F (180°C) is ideal
- At 400°F (°C) combustion begins to produce toxins

\*Not approved by the FDA.

# Some Helpful Products: Cannabis Edibles\*



- Low dose, low calorie, low sugar
- High precision dosing, good bioavailability



- Watermelon flavored
- Easy to dose, long-lasting, watermelon flavored confection
- Sativa: 2mg Gems ("30 count)
- Hybrid: 5mg Gems ("30 count)
- Indica: 2mg Gems ("30 count)

\*Not approved by the FDA.

# Some Less Than Helpful Products\*

## Not very useful

- Dose too high
- Not readily divisible



- 55mg gluten free chocolate chip cookie
- 55mg peanut butter krispie cup
- 60mg CBD graham crackers (3 in pack)
- 60mg chocolate chip cookie
- 60mg chocolate peanut butter chip cookie
- 60mg peanut butter sandwich cookie
- 60mg toffee crunch cookie

\*Not approved by the FDA.



# CBD for Sleep

- Low doses are ineffective
- High doses (10-20mg/kg/d) promotes WAKEFULNESS!
- High doses can cause medication interactions.

# Call to Action: Cannabis in the Management of Insomnia

- Consider & treat medical causes of insomnia
- Consider & treat non-medical causes
- Maximize sleep hygiene
- Sleep Latency = Inhaled
- Sleep Maintenance = Oral
- Mixed = Oral earlier
- 5-20mg regardless of route
- Use edibles over caps or tincture
- Avoid vape pens
- No bong rips
- Mind caloric intake
- CBD irrelevant

# Questions & Answers

Thank You!

